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PUBLIC LIBRARIES.

BY THE REV. W. H. WITHROW, D.D., F.R.S., CAN.

I AM glad to have an opportunity of speaking a word of congratulation on the opening of this free public library. I can think of no more worthy mode of celebrating the semi-centennial of this fair city than by the inauguration of this beneficent institution. I can scarce conceive of a grander monument of the city's progress or a more auspicious omen of its future welfare. I confess that I have more than once felt that my native city, notwithstanding its literary pre-eminence, compared unfavourably with many less populous and less wealthy cities in Great Britain and Europe and in the United States, from its lack of a public library. I rejoice that that reproach is now taken away, and that through the energy and enterprise of Messrs. Hallam and Taylor, to whom more than any others the existence of this

library is due, and through the intelligent liberality of the ratepayers of Toronto, we see opened to-day this magnificent institution.

I regard this library, if the Hon. Minister of Education will permit me to say so, as in a very important sense the complement of our Public School system. Only a few of our young people can pass from the Public schools to the colleges or universities of the country. But these free libraries, which I hope to see multiplied throughout the land, are the people's colleges, where the poorest lad or the toiling artisan shall enjoy the best teaching in the world. "The true university of these days," says Carlyle, "is a collection of books." All education that is worth anything must be largely self-education. I am sure that the learned president of University College will agree with the opinion that many a self-taught man—who has never seen the inside of a college—self-taught like

* The substance of an address at the opening of the Free Public Library, Toronto, March 6th, 1884, revised by the author for the C. E. MONTHLY.

John Bright, by the help of good books, is in the best sense of the word well-educated. Such libraries as this furnish the means for this self-education. On these shelves are the silent teachers who shall take by the hand the enquiring student denied the advantages of university training, and shall guide his steps through the wonder world of science, and through the lofty realms of intellectual and moral truth.

I am glad that in this library such ample provision is made for instruction in technology, in the arts and sciences and handicrafts of life. The needs of the intelligent artizan and hand-worker are duly recognized. In an industrial community like ours this class is, in a very literal sense, the bone and sinew of society. I doubt not that in a short time all the cost of this library shall be more than recouped through the increased skill and increased value of the labour of the intelligent workingmen of this community, to which it shall very largely conduce. Such has been abundantly the result where similar libraries have been established in manufacturing centres elsewhere, and such, I am sure, will be the result here.

But there are other and higher uses of this library. Its best results are not reached if its books be regarded only as a set of tools for making money. They are also means of intellectual and moral education. "Reading," says Addison, "is to the mind what exercise is to the body; as by the one is health preserved, strengthened, and invigorated, by the other, virtue—which is the health of the mind—is kept alive, cherished, and confirmed." I prefer to consider reading as something more than mere mental exercise; as the very food of the mind, the very condition of intellectual life; and thought and study, as the assimilation of that ali-

ment which alone can satisfy the hunger and thirst of the soul. As well starve the body, which is but the servant of the mind, as suffer the nobler, the truly regnant part of man, to pine and perish for lack of mental, of spiritual food.

"God be thanked for books," says Channing. "They are the voices of the distant and the dead, and make us heirs of the spiritual life of all past ages." By means of this free library the poorest man among us, the friendless, and the solitary, may find spiritual friendships and perpetual solace, and succour and delight. He may hold converse with the mighty dead, and range throughout the wide realms of creative thought, of poetic fancy, of scientific exploration. Though he dwell in the humblest cottage, the "myriad-minded Shakespeare," the majestic muse of Milton, the great poets and philosophers, and sages and seers will come beneath his roof and give him companionship with the noblest spirits of all the ages. Their high thoughts or sweet fancies or curious lore will lighten the burdens of toil, and brighten dark days and gladden sad hours, and lift his mind above the dull and sordid drudgery of life. These books, let us hope, shall in many cases prove to sorely tempted men an attraction more potent than the tavern or saloon, and give to the domestic fireside a brightness and a gladness long unknown.

To busy toilers in life's hive this well-equipped reading-room will give an outlook on the world around us that must greatly broaden the horizon and liberalize the mind. The pictured papers of many lands which shall lie upon these tables, by the help of the artist's cunning skill will present a continuous panorama of the world's progress, of its great events, and of the achievements of art, science, and industry everywhere, such as

cannot fail to arouse, instruct, and quicken even the most sluggish mind. The foremost journals of the world will help to bring us abreast of the great movements of the age. The study of the conflicts of opinion and collisions of thought will tend, as the elder Disraeli has said, to make men less narrow, more tolerant of the opinions of others, more receptive of new ideas, more willing to look at questions on all sides, and better fitted to discharge their duties as citizens, as subjects, as patriots. The reference library of costly books on fine art, on technical science, on foreign lands, with their wonders of nature and triumphs of architecture, will bring within the reach of the poorest among us privileges which hitherto very few even of the rich have been able to command. Here I should acknowledge the distinguished liberality of our townsman, Mr. Hallam, in his gift to this library of 1,600 vols. of valuable reference books, many of them of a very rare and costly character. I hope that not a few other public-spirited citizens will imitate this generous example.

It may perhaps be thought that I have been anticipating purely ideal results from the establishment of this library. But they are at least possibilities, and in many instances, I doubt not, will become actualities. It may be asked, however, Is there no obverse to this medal—no other side to the subject? There is. "Books," says Emerson, "are the best things, well used; abused, they are among the worst." There is such a thing as the abuse of books. Many make their minds the conduit through which pours a flood of trashy or pernicious reading, the effect of which, besides the waste of time and enfeebling of the mental powers, is to leave an inveterate taint behind. Of distinctly pernicious books, I hope that we shall in this library, have

none. Of the frothy and frivolous, the sort of which young ladies in Paris, let us say, get a volume every day, and two volumes on Saturday, I hope the patronage will be small.

"But even the fool's best book," says the genial Autocrat at the Breakfast Table, "is a kind of leaky boat in a sea of wisdom, some of the wisdom will get in anyhow." It will be a poor book from which something cannot be learned. Let us hope that the reading of even poor books may lead in time—if only through the weariness and disgust that they cause—to the reading of better books; and good books will be a most effective safe-guard against idleness and vice. "My early and invincible love of reading," wrote Gibbon, "I would not exchange for the treasures of India." Though I live myself in a very modest home, it contains one room—the room lined with my books—that I would be willing to exchange for very few rooms in this city, unless indeed it were for this library. And this magnificent library, to become every year more magnificent, is an *annex*, an apartment of every home in this city, even of the humblest; and every member of every household is free to share its priceless treasures. I rejoice that this is emphatically "the people's library." The poor man delving in toil's dark mine, who can scarce get food for his body, but who yet feels in his mind the sacred hunger, the quenchless thirst for knowledge, may drink deep draughts at these fountains and satisfy his soul with wisdom.

"A great library," some one has cynically said, "is a vast mausoleum, in which lie embalmed, each in his narrow cell, the mummied dead of bygone ages." I do not think that this is at all a good comparison. No man is ever so much alive as when speaking through a good book. Death smites at him in vain. He "cannot all die." He still lives long after his

body has turned to dust. Indeed he multiplies himself a thousandfold and speaks, it may be, in many lands and in many tongues to multitudes who never could have heard his living voice. "Books are not dead things," says Milton, "they do contain a potency of life in them, to be as active as that soul whose progeny they are. . . . As good almost kill a man as kill a good book." I hope, therefore, that in time every "live" book, whether I might agree with it or not, every great epoch-making book shall find a place on the shelves. I am not at all disturbed by the conflict of opinion that is going on around us. I have no fear of the discussion of the profoundest and most fundamental questions that agitate men's minds. I prefer to say with the great apologist for a free press 200 years

ago, "Though all the winds of doctrine were let loose to play upon the earth, so Truth be in the field, we do injuriously to misdoubt her strength. Let her and falsehood grapple; whoever knew Truth put to the worst in a free and open encounter? . . . For who knows not that Truth is strong, next to the Almighty?" I have the most serene confidence that through the good providence of God, as the result of all the discussions and conflicts of the ages, Truth—fair, free, immortal Truth—shall gloriously and forever triumph.

I pray that the blessing of God may rest upon this library; that in ever-increasing measure it may be the potent means to sweeten the lives, to instruct the minds, to ennoble the character of successive generations of citizens to the end of time.

SCHOOL, AS A PREPARATION FOR LIFE.

BY C. TURNER, ESQ., C.M., HEAD MASTER OF HOLY TRINITY SCHOOL,
LONDON, ONT.

THE daily intercourse of school, the nature of the circumstances under which children and teachers are brought together from day to day, offer opportunities to the latter of implanting principles and forming habits, which are alike necessary to the happiness of the children, and to the well-being of society.

The truth of this is clear from the fact, that the school is a little world in itself. Here are the weak, the ignorant, the wayward, the obstinate, it may be the vicious, as well as the bright, the happy, and the pure, all present for a common purpose.

This being the case, practical lessons in the relative duties of subordination, self-denial, forbearance, gentle-

ness, industry, and self-reliance, must be secured as a preparation for the actual business of life. Placed under strict and wholesome discipline during the whole period of school-life, and taught to discipline themselves, our pupils ought necessarily to become intelligent and law-abiding citizens. So that it is not too much to say, the future destiny of a country like ours depends very largely upon the tone and character of scholastic work.

In reference to the whole class of duties above referred to, there is one general principle of conduct, namely—a due regard for the feelings and rights of others, by which, if steadily acted upon, most good is effected.

Take, as an instance of the operation of this broad principle, those habits of mind and person denominated *good manners*. The expression "good manners" is a synonyme for modesty, courtesy, self-denial, a disposition to oblige, consideration for the feelings of others, and self-respect. As such, these form an element in character, and have an influence in discipline, which cannot be overlooked. Much that is included under the term is mechanical; but when habitual, minute attention to ceremony, decorum, and gentlemanly conduct act upon the character, producing imperceptibly those very dispositions of which they are expected to be manifestations.

This is a point deserving the careful attention of all engaged in education. Doubtless attention to externals in behaviour is often joined to artfulness and shallowness; and it is also true that children who have been trained to *compulsory* habits of respect have thrown them off with their school-life, and become rude and boorish, often mistaking such conduct for independence and manliness. Yet there can be no question that a scrupulous attention to the various points in good manners, though it may proceed from a mechanical observance of rules and not from the heart, tends to produce the very feeling of which they are the fitting expression. Thus, a person who performs an act of kindness from a mere desire to be *thought* polite, cannot do so without exciting to some extent that feeling in his heart which he affects to ignore or despise. It will be asked, "How is it, then, that children who are drilled into subordination and acts of respect towards their teachers and one another, become so rude when the restraints of school are removed?" The answer is, because there is the shadow, not the substance—the pretence, not the reality—stopping at *masks* of respect, simply because the vital prin-

ciple of treating every one with whom we come in contact with the courtesy to which he or she is entitled is lacking. Where 'this is the case, no wonder there is the reaction complained of immediately after school hours. The formation of a right principle will correct all this.

Good manners must be practised every day in school, and be the outcome of precept and example. Well-timed instruction on such faults as answering class questions out of turn, or without permission, prompting answers, etc., will make clear to the children the feelings which ought to regulate their mutual intercourse. A few rules constantly enforced on the mode of passing and receiving articles, on entering and leaving the room, on little services to each other, and on acts of courtesy to visitors, will help to fix the habit. But example is always better than precept. In fact, example here, as in all moral instruction, will give the *interpretation* to the precept. The teacher ought, then, to be, in the truest sense of the word, a *gentleman*. Very important is the tone of his intercourse with his pupils. Children are keen observers—none more so—and, depend upon it, if there is one man whom they watch and criticize more than another, that man is the schoolmaster. Should they, therefore, discover in him an open, or, what is worse, a secret violation of those laws and precepts which he is constantly in the habit of teaching them, can it be expected that they will do otherwise than fall into the fatal delusion that his so-called principles are mere *opinions*—things apart from life and practice? It has been well said that "a master's school is but a reflex of himself,"—as the master so the school—and "that a discerning teacher may see his own likeness stamped upon it in living reality." This is to a very great extent perfectly true. Let, then,

punctuality, regularity, order, method, diligence, perseverance, truth, humility, and practical piety, characterize all our actions there. We may then safely leave the results to God, "whose Providence ordereth all things both in heaven and earth."

Never should the teacher receive any little attention from his pupils, or have anything handed him by them without returning thanks, and showing his appreciation of the act and the manner of doing it. He should shun all that is rude and coarse, whether in manner or language. He should avoid sarcasm and sneer, and hostile criticism, as these soon dry up the sympathies of children.

Nor is such gentle, courteous, and considerate treatment at all incompatible with the authority he must exercise as master. In fact, here is a *stronghold* of authority. When human beings are treated as human beings, not as so many machines for grinding out certain results required by law, it often becomes a point of honour (except, perhaps, with the very abandoned), to yield that submission which is due. If boys and girls are trained to respect the rules of the school, and to obey all orders emanating from the master promptly, and cheerfully—even when those rules and orders conflict with their own feelings and desires—there is a pretty strong guarantee that those children will ultimately become well-ordered, citizens—and, be it remembered, good citizens are a nation's safeguard against anarchy, Communism, and annihilation.

Is any consideration necessary to induce the teacher to be thus careful in his dealings with children? This has been already anticipated: but let him further remember, that, in many cases, he is the only individual of superior knowledge and education with whom they come in contact. Strange as it may seem—it is

nevertheless true, that every day scholar attends *three* schools daily—his home—the street—and the school itself. And we all know that the home surroundings of many children are anything but educative for good. There the language, manners, habits, and daily life are alike coarse and injurious so also in the street. Children's ideas, therefore, of what constitutes true gentility will be formed to a great extent by the force of his example, whom they are accustomed to meet daily for the express purpose of receiving instruction; and these ideas will, more or less, cling to them through life. So that much of their happiness, it may be of their success, and certainly of their influence, as members of society, will be determined by the precepts he has instilled, and the example he has set them.

It is but a low view that some people take of education, when they say it should be confined to the acquirement—simply and solely—of knowledge, such as is contained in our school-books. For all experience proves that intelligence alone does not fit a man or woman to take his or her proper place in society. There is a danger of mankind being more captivated and influenced by intellectual attainment than by moral worth. Yet mental acquirements, however splendid, without virtue, are but a vain and glittering bauble to their possessor. Nay more, they are a positive evil—a ready and keen sword in a skilful madman's hand, a weapon of destruction that a man had better be without. Education must have for its end intelligence, morality, and virtue; for, after all, *character* is uniformly the source of success or failure in all pursuits.

If, then, our schools are to be centres of enlightenment in knowledge and virtue, they must be presided over by men and women who

love their calling, whose stores of knowledge are at once large, varied, and exact; whose characters are above reproach; and whom our children may safely imitate. Thus will they be prepared to enter upon the activities of life, when school life is over, provided they are willing and anxious to "obey the Truth." That experience of men and things which is invaluable to every one of us is only to be acquired by actual contact with others "in the world's broad field of battle." But if our youth are trained, as they should be, to think for themselves, to be active, persevering, self-reliant; to say what they mean, and mean what they say; to be "sober and temperate in all things;" to be courteous to all and rude to none; to be "swift to hear, and slow to speak;" to be "true and

just in all their dealings;" to "hurt nobody by word or deed;" to be guided by principles rather than by sentiments, then may we expect that duty will be done however imperfectly; conscience acquitted; peace, happiness, and protection realized. Thus, and thus only, will "the greatest happiness of the greatest number" be secured. The surest way to command the honour and esteem of our fellow-creatures is — to deserve it. The writer therefore urges upon his brethren in arms the absolute importance of thorough work, sound principles, and uprightness of character, for if these things be in us and abound, we shall not go to our work in a mercenary or indifferent spirit — knowing that the future of our pupils depends so largely upon ourselves.

HINTS ON TEACHING LITERATURE TO JUNIOR PUPILS. *

BY MRS. ALICE FREEMAN, RYERSON PUBLIC SCHOOL, TORONTO.

THERE is a quaint old story told of a poor man, who having lost the spectacles adapted to his own special need, was compelled to borrow from neighbours until able to replace his loss. Very amusing are the experiences he passed through, in trying to adapt himself to the various outlooks each successive pair gave him. One pair would magnify a molehill into a mountain, another diminish a literal mountain till it appeared a relative molehill. Sometimes all nature would seem dark and sombre, sometimes full of brightness and sunshine. After becoming the victim of many blunders, through the false impressions he received, the

poor man was very glad to recover the pair to which he had been long accustomed, and from behind which he felt he could view the world in comparative safety.

Under the humorous surface of this old tale lies this leading truth: we all survey life through spectacles of one kind or another, and whether they be dark or bright, whether they distort or present facts as they really are, depends to a great extent upon the sources from which we have gathered our information, in the years that have passed over us.

We welcome home a friend from a foreign shore, we listen to his stories of travel and adventure, and as he conveys to us his impressions of the lands he has seen, we are viewing this

* A Paper read before the Toronto Teachers' Association, 1884.

phase of life through our friend's spectacles. We sit beside the fire on a winter's evening, and cutting the leaves of a favourite magazine, read an editorial upon some vexed social question, and whether the matter be wisely discussed or not, we are taking a peep at society from behind the editor's spectacles.

But it is easy to realize, without further illustration, how the opinions of others affect our own judgment in all things;—and if this be true of ourselves, with fully developed reasoning powers, *how much more must it be true of our children.* Gazing out upon the world with wide-open questioning eyes how eagerly they seize upon any source of information that comes in their way, and how disastrous the results when these are unreliable and distorted. Parents and friends, teachers and writers, we are constantly lending to the children around us our spectacles, from behind which they view the busy world, and receive upon mind and heart whatever impression we desire to make. Oh, that we would take more care to make it a wise and happy one!

Ever since the days that Mother Goose sprang into popularity the necessity for children's literature has been recognized; and down the years that have multiplied her numerous offspring, has come an array of stories and ballads not always intended for mature years alone; for though, until within the past twenty-five years children's reading matter was not made a specialty, we have some specimens extant that show us, they were not altogether unsupplied. Think of a book, written by a father for his daughters as early as the thirteenth century,—picture the stern Martin Luther laying aside all care, to write those charming letters to his little ones,—and you will see that the children were not forgotten amidst the turbulence and strife of earlier

days. But it has remained for the present age to excel in books for children; full of charming tales, written by standard authors, and illustrated by the best artists of the day. The fact that it is not an easy or trifling matter to write for children has been duly recognized, since some of our best and purest authors have turned their attention to this special art, and not a few have received more honour for their tales of sweet child-life, than for profounder works.

The question then that comes to the puzzled child is not one of material but choice; not where shall he find a story, but what story shall he choose? And it is here, I think, we teachers may step in and do so much to give our pupils the proper mental bias, for biassed they must be in one direction or another.

Let us enter now for a little while into the school-room, close the door upon all outside ways and means, and see what we can do, within our programme of studies, to further the end we have in view.

In glancing over the subjects brought daily and weekly before our pupils, those in which we may find opportunity to give hints and suggestions regarding home reading, are Reading Lessons, Language Lessons, Memorized Selections, and lastly Stories, told simply in story form.

First of all come our Reading Lessons. Granting the importance of reading as a lesson in voice culture, we may ask if it not possible that we pay too much attention to the mechanical part of the work; that we rest contented if punctuation, pronunciation, even expression are accurate; forgetting that there should always be a certain mental appreciation of the matter read, which cannot be reached by the pupils without our aid. We throw a few side-lights upon the bare blank narrative, and instantly it becomes a real living picture, full of

unwonted interest. It is a good rule never to leave a selection, be it prose or poetry, without noting the author's name, without mentioning something interesting about his life (in these days of journal sketches and biographies the lives of our writers are public property); and naming other writings by the same author, taking care to choose those that are within the comprehension of the children, and without making them desirous of hearing more about the subject matter of the lesson. Take our Third Book, for example. Before advancing very far we meet the names, Longfellow, Ballantyne, Mrs. Hemans, and Hans Andersen. Do not let these names remain strange sounds to the children, make them realize them. They are the names of people like themselves. It is astonishing how quickly these names become familiar as household words to them. Find a corner of the blackboard whereon to write the names of various well-known and entertaining authors, as they occur in our Readers, with one or two of their most interesting poems or stories and *keep them there*. Only a few weeks ago we had finished our reading lesson and the order "close books" was given, when a murmur came from one corner of the room, "It's written by Mrs. Hemans, and you didn't put it down"—"Yes and she wrote, 'O, call my brother back to me' in the Second Book," responded another, without any regard to punctuation but with a full consciousness of his superior knowledge. The omission was promptly supplied and the boys commended for their thoughtfulness. These were voluntary comments, and the pupils were quite accustomed to make them and to give the information in a most natural manner.

All such details should be given incidentally without departing in the least from the regular order of the lesson. Sometimes, when the

selection promises to be dry and uninteresting, it is well to tell the children a little about the author and his writings on beginning the lesson, in order to attract their attention. Again, if it is by a writer they have learned to know well, the close of the lesson is best, because they are all on the alert to tell what they know, and the interest is keen to see who can tell most or first. It is amusing occasionally to see the look of dismay that arises when turning the page, 'they find no name attached to the selection, or again when a boy states that "Mr. Anonymous wrote it." Soon however they find out what any literary term means, and talk about paragraphs, and stanzas and anonymous books, without the consciousness that they are using other than every-day language.

The present age has been called the age of abbreviations, and we all admit the tendency to curtail our sentences, words, syllables; we even try to think in epigrams. Elegance and fulness of language are daily sacrificed to force and expressiveness. Perhaps a certain amount of force is needful in the rush of business life, but it rests with us to show our pupils that true force is only acquired by using the right word in the right place, and that slang phrases, however fitting they may appear, are weak, inasmuch as they indicate a lack of ability to use the proper word.

In the Gramma, Lessons, or Language Lessons, as we more correctly call them, not a little also may be done in a quiet way to acquaint our pupils with the names of authors and their works. In the construction of sentences, either for classification, analysis or correction, it would be an easy task to embody certain truths instead of the meaningless phrases we so often throw together. For instance in place of "Virtue is its own reward," "The tall man walks down the street," "It is a very fine day," sub-

stitute "Longfellow the poet was a great friend of little children," "Ballantyne has written some interesting stories of adventure," "Dickens was once a poor boy," and others more complete if needful for the requirements of the lesson. Such sentences lead to enquiry, especially if the pupils once realize that they are really true. "Tell us one of the stories," they cry, or "Did he grow rich?" "Had he to work very hard?" and then comes the promise that they shall be told at the first five or ten spare minutes through the day or week. Never wander from the subject of the hour, no matter how dry it is, or how attractive the path may be that opens out in some other direction. The children are not likely to forget to claim the desired information at some future date, and this brings us to our opportunity of directing their reading by stories told simply in story form.

There is no need for me to tell what fascination the prospect of a story exerts upon children of all ages, how the most restless are quieted, and the most indifferent become alert and intent. The charm is not lost even in more advanced years, for many of us here to-day, who grow occasionally restless and inattentive under the pressure of dry discussion, would promise unlimited attention and perfect order if the president would only tell us a story.

It is not to be wondered at, this eagerness of our pupils, with all the possibilities of this busy world before them, its strange lands they cannot yet explore, its laws of science, they cannot yet grasp, its government they cannot comprehend, and, above all, the mysteries of the unseen, which surround them on every side, filling their imaginations with vague terror and superstition, or confidence and enlightenment, just as we people do it for them with evil or with good. Surely, among all these wonders,

there is material enough for us to draw upon. But why not let our stories turn frequently upon the lives and works of great men, especially of authors and their writings, than which we could find nothing more attractive. Again we might give outlines of some books worth reading, or select chapters, anything that will excite their curiosity and make them desirous of knowing the rest. In doing this we must remember the needs of the children. Their imagination must be fed. Give them plenty of adventures and wonders. Portray for them Hans Andersen, with his awkward figure and homely face, tell them of the sensitive nature, the vivid imagination and the big heart beating beneath, then relate the story of "the Ugly Duckling," and see how intently they listen, knowing it is a picture of his own neglected boyhood; put his name in the literary corner of the blackboard as one well worthy to stand pre-eminent among children's story-tellers; tell them too of Dickens' boyhood days, spent in a factory, give them some selections from his books. They never tire of hearing of Smike the half-witted drudge, of poor neglected Joe the street arab, of Little Nell and her travels, of Joe and Pip; these characters become old friends to the boys, and they are desirous always of knowing more about them, and determine some day to read for themselves. Then we have Ballantyne, with his host of startling adventures on sea and shore; and for senior classes Jules Verne, with his brilliant and not entirely unscientific flights through the universe. Longfellow should be the children's poet, not only of the present, but of the coming generation, his simplicity and pathos making it an easy matter for any child to understand him. Even Matthew Arnold with all his vague mysticisms writes a poem that children can appreciate, and they listen with

rapt faces to the story of the merman, whose wife was charmed away to the upper world at the sound of the Easter bells from the little gray church on the sea shore.

But it is useless for me to begin to enumerate the hosts of beautiful legends and tales and sketches that are at our command, each one pregnant with tender and heroic thought. The only wonder is that any one of mature judgment should be attracted even for an instant by the trashy or worse than trashy publications that crowd the parlors of to-day. Let us then try by this or any other judicious method to help our boys and girls, whose tastes are yet unformed, to appreciate and hunger for a higher and more wholesome class of literature.

But here let me say a few plain words in regard to this story teaching. It should not be of too frequent occurrence, nor yet without some other motive than mere amusement. We cannot denounce too strongly the custom that is not unfrequent among us of killing time, quieting troublesome pupils and relieving the teacher of needful work by taking up a book of suitable tales, and reading from it for an hour at a time, such a plan defeats all purpose of systematic instruction. We all know how our pupils demand another and still another; and before the second tale is finished, the first has become a blank in their memory. This method cultivates the habit of mental cramming so common in the present day, and seriously impairs the mental digestive organs. Let the story then come once a week, twice at the most. Question your pupils always at some aftertime, to see how much their memories have retained. If read to an advanced class let them rewrite it from memory. Tell the story, in preference to reading it, if your pupils are junior ones. It is fatiguing certainly and requires more effort than simple read-

ing, but we are repaid always, not only by the increased interest of our pupils, but in the knowledge that it aids the teacher to become a graphic and fluent conversationalist. Let us not attempt too much at once; if we can make our pupils conversant with the lives and writings of three or four interesting authors during the session, we have given them quite enough to store away, and were this plan adopted in the various grades, any pupil on reaching the advanced classes, would be capable of comparing one author with another, and be able to give reasons for any preference he might have.

I am afraid the custom of memorizing choice selections from standard writers has dropped somewhat into disuse in our schools, although it is one we can ill afford to dispense with, yielding as it does an opportunity for voice culture as well as storing the minds of the children with noble thought expressed in choicest language. We have the whole book world to choose from, and no teacher, be his literary judgment ever so poor, is likely to go far astray in presenting to his class suitable matter for memorizing. Give them selections suited to their capacity, and tell them the substance of the remainder of the article chosen; help them to find out when a thought is well expressed, show them that slang is never used by really good writers, teach them to detest anything like looseness of language in themselves or others, suggest the care that is exercised by writers in revising before sending their manuscript from them, thus by inculcating patience in composition, help them to make the language of literature their own, so that all unconsciously they will adopt it for daily use. The Association will pardon a slight digression here, in order to give a practical illustration of what is meant. A week or two ago, on walking to school in the morning,

one of our teachers noticed, as probably we all did, that houses, fences, everything was covered with ice and the branches of the trees kept up a continuous rattle as they swayed in the wind. Her class had been reading, the day previous "The Wreck of the Hesperus," a selection familiar to most boys and girls. One line in it, describing the condition of the wrecked vessel, runs thus, "the rattling shrouds all sheathed in ice," and by a very natural association of ideas the lines recurred to her repeatedly, as she walked. Just after opening exercises, the class was asked whether anyone had noticed anything peculiar on the way to school; more than a dozen answered, "The branches of the trees are all ice." "Well," said their teacher, "what then." "They rattle when the wind blows." "Now," she continued, "they have been reminding me of one line in the 'Wreck of the Hesperus,' can any of you tell me which one?" After a few moments and without any further assistance, two hands went up, and the line was repeated, one boy adding, "it's the rattling trees all sheathed in ice" this morning. The teacher was surprised and pleased particularly at the voluntary adaptation of the words, and this perhaps helped to fix the incident in her memory. It is wonderful with what rapidity these little folk convert abstract notions into every day realities, and how quickly they familiarize to themselves the names and works of writers until even the teacher feels as if they were personal friends in whom a hearty interest was taken.

Never take a book away from a boy, be it ever so worthless without suggesting, or if possible supplying him with a substitute, and do not think a few minutes at recess or noon wasted that is spent in calling him to you and showing him wherein the book is valueless. He will remember your criticisms long after you have

forgotten them, and will probably judge the next book he reads by the standard you have set before him. There are some boys in the city who are carrying the names of several books by certain entertaining authors about with them written on a scrap of paper "so's we'll know what to ask for when any one wants to give us a book." Of course the paper will be destroyed, used as bullets for pop-guns, or rolled into wads to fire at any offending companion, but the impression will have been made and retained in after years. It is to be hoped, though, that the present possession of the lists, will not suggest the asking, or parents and friends may not grow enthusiastic over the device.

It is only in little ways like these quietly interwoven in our daily school work that we can direct to any extent the present and future course of reading our pupils may adopt. No arbitrary rule will effect the desired result, but we are wiser than to attempt any such plan. Steadily and perseveringly we must work on, filling up each nook and cranny in our boys' minds, leaving no vacant space where dust or refuse may find lodgment, so that when all the varied literature of the present day is open to them, they may find no place for useless or vicious matter.

In view of the opening of the Home Library, from which we anticipate so much, it is desirable that some regulation should be passed limiting the age at which young people be allowed the privilege of selecting books, or better still, there should be a young People's Department, and this section only, open to them. Unless some step of this kind is taken the Library will not prove an unalloyed good to the community. It surely would be inadvisable that our young folks of twelve or fifteen years, should have the extensive range that so large a library must afford, and yet it

seems hardly fair to debar them from access to it. We have neither time nor space to discuss this question more fully, but would like to press this one point, and it seems most fitting that any such suggestion should come from the Teachers of Toronto, rather than from any other source. Were the Directors willing to allow us to make selections for the Young People's Department, we would undertake to choose so wisely as to attract not only the young but many older and wiser folks.

But close what avenues we may, there are always plenty of others open, and in these days of cheap publications, it is impossible to keep pernicious literature out of the hands of our pupils. After all, the best and surest safeguard must lie within. We must implant in them a desire for substantial thought, pretty fancies and choice language, that will give them unconsciously a distaste for poorer work. Even then there is danger, but beyond this point we can only guard them by teaching them the art of self-government and self-control, and that is a life long study in which we can only hope to give the first few lessons.

On glancing over the suggestions contained in this paper, they seem so simple, as to be hardly worthy of a place in your memories, but if they serve to arouse an interest in a subject which forms so important a factor in child-life, I shall be satisfied. I know there are teachers before me now, earnest in work, thorough in discipline, skilful in method, anxious to do all in their power to send their pupils forth fully equipped for the battle of life. I beg of you, do not leave this one weak spot in their armour. Give them mathematical precision, if you will, help them to acquire all the business education possible, but believe me, the thoughts and fancies of leisure

hours also need directing and guarding. A boy will never make a less successful business man, if when business hours are over, he can turn with zest to a wisely written book and follow the author into the wide realm of facts and fancies, lights and shadows, that rise and fall over all the strange problems of human existence.

There are so many important subjects to be handled in our profession, that we sometimes feel like the fabled old woman of nursery rhyme; we have so many children and so much to impress upon them that we really "don't know what to do." Sometimes they get the bread without the broth, and sometimes the broth without the bread, and once in a while we are happy in our method, and give a judicious mixture of both. I suppose, after all, wise and successful teaching is simply learning to mix broth and bread in proper proportions.

One word in conclusion, do not think this subject a trivial one, even if the remarks you have heard deserve that appellation. Look back each of you upon your own early days, and see how you have been biassed by the line of reading you have adopted. There are books you have read in the past, you would gladly blot from your memories, but the mischief has been done, the evil thought, the bitter sneer, the troubled doubt has been instilled, and you cannot ever bury it so deep, that it will not rise again.

If any pupil of ours should in future years lay down some spicy sensational novel, or leave the sheets of some violently illustrated periodical uncut, because of some dim remembrance of a warning note, sounded in old school days, the knowledge should make us more satisfied with our work than had he obtained all the honours that Universities could bestow.

MORNING.

THE PRIZE ESSAY FOR 1884—UNIVERSITY COLLEGE.

BY D. J. MACMURCHY, TORONTO.

IN THE CITY.

IT is a cheerless morning as we step out upon the damp pavement. The air is sharp and piercing, and the uncertain light that begins to glimmer, seems rather to increase the gloom of the scene. The houses are grotesquely large, the sidewalks are bare, and look half expectant of the great human tide that will flow back over them with the return of day. The streets are noiseless and empty. Even the darkness, as if reluctant to leave, lingers yet in shady corners, and down dark alleys. Out on the broad streets the perspective of the long lines of houses is harder than ever. The street corners never seemed so mathematical, the church spires never so fantastic. As we pass along and look up at the windows, here and there a drawn blind betrays the sleeper within, while down below, articles exposed for sale, and left over night, look odd and out of place. Next, we reach a cross street, and glancing along expect to see some living being. Not a soul is stirring, and the long street ends only in a dim mist that suggests miles and miles away in the country—the home of the green fields and the summer clover where nature rules alone, and all is innocence, and purity and hope. Dreaming, however, of them brings the fields no nearer; as we wander on we see for miles around us acres and acres of the roofs and chimney tops of the great city. You would

almost fancy that the whole population had fled during the night, till a stray beam of light falling on the pavement attracts our attention, and looking up we see that the dim ray of a lamp has struggled out through a closed shutter only to die in the first light of day. Perhaps, too, with that dim ray, struggles out the muttered, long-forgotten prayer of a dying man. For within, the other rays of the low-burning lamp fall across the feverish face of the sufferer, who welcomes the morning but to wish it gone, and only sees the day decline to long for it back again. As the first light steals in on him, his thoughts wander away back to the old home and the little room where, long ago, he used to lie and watch the same bright sunbeams glisten and glance on the little square window-panes, while outside high overhead, the birds were praising Him who sends the sunlight. Life was very fair then, but now repentance seems a mockery, and hope comes too late. Leaving the light and the reflections it awakens, we pass on. A stealthy breeze comes up the street behind us, making the shop signs swing and creak till they look ashamed of their own faces, and sending a rabble of last year's leaves with their bad city acquaintances—scraps of dirty paper—scampering across the roadway. A little farther on, down at the end of a lane shines a gas lamp looking dismal in the increasing light. Led by curiosity, we pass in and disturb what seems a bundle of

rags, but, what is in reality a human being that want has forced into the streets, and Christian charity and the police have left there. As your eyes become more used to the light, or rather the darkness of the place, you see that the poor wretch you have disturbed is not alone, for he has companions to whom some quiet corner affords a scanty shelter. Alas, that brick and stone should be less hard-hearted than flesh and blood! Some are asleep—never to wake again—others too are asleep, but they will wake again—perhaps on many another morning of misery like this. But they are far away now from their troubles, far away in the fields, in the woods where they once used to stroll, some are in gorgeous palaces attended by smiling courtiers. Some in golden climes raising the precious sand in their hands. All are forgetful of what is passing around them. Thank God! the poor are as happy in their dreams as the rich, and often more so! Retracing our steps we pass out under the archway on up the street. There is more light, and things look more natural. Round the corner in front of us comes the first cart with a sharp turn and goes rattling away up the street. The sun is coming up fast now, it tips the cathedral's spire and pinnacles with a dazzling edge of gold, a minute more it peeps over the gables and looks you full in the face. The broad day has come at last. And down through palace dome and rotten roof, through costly coloured glass and shattered window, it sheds its equal ray.

IN THE COUNTRY.

There is no wind. Even nature herself is in suspense as we step out through the little wicket gate and go on up the pathway over the hill. The air is fresh, and with the first faint signs of the coming day grows colder.

The few remaining stars never looked so far away. Far in front the first dull hue—the death of night rather than the birth of day—glimmers faintly in the sky. Soon this indistinct light gives way to brighter colours that foretell the advent of day. Higher and higher it shoots into the pale vault, till the sun—the bright sun that brings back, not light alone, but new life and hope and gladness to man—bursts forth over the expectant earth in clear and radiant glory. God made the country. No one could doubt it, as in the green grass on every hand sparkle thousands of gems. The daisies turn their lovely dew-dipped faces to greet the light. Objects which looked grim and terrible in the darkness grow more and more defined, and gradually resolve themselves into familiar shapes. The haystacks, even the barns, look picturesque as the first sunbeams, leaping from one tree-top to another, fall aslant their moss-grown gables and down their weather-beaten sides. Over on the hill yonder the little country church that nestles among the pine trees has not been forgotten, for these first beams look in at the odd, old-fashioned windows, and throw great golden bars of light into the pews below. Still, though these sunbeams love the little, old, steady-going church, with its ivy-covered walls and simple worshippers, they love far better to peep in through the churchyard gate, with its unsteady hinges, and look at the graves which lie thick in the shadow of its walls. These early beams never trouble the old hinges for they come in right over the top of the gate and stoop ever so gently to kiss the grass that is green on every mossy grave. They remember the one that has lain there forgotten for a century, and they have done so every morning during all these long years. They stoop in pity over the mound that was not there yesterday, and lift

the drooping flowers that have been placed there last night. Soon, however, the new grave will be as green as the rest, soon it will miss the gathered flowers and the daily visit, but the gentle sunlight will come back again every morning just the same. Through the weather-beaten palings of the old fence the great heads of clover look in awe at their more patrician neighbours, the roses. But the roses too must die with the clover. On, down the road we pass, till in the meadow we cross the bridge with its noisy stream. The well-worn planks shew that many have passed before us on up, perhaps, to the churchyard on the hill, or to the wicked city many a long mile past it. As we stand gazing into the stream the maples glance over our shoulder at their images reflected in the water, and their leaves tremble as they fancy that perhaps some day they may stoop too

far and fall headlong into the water. Out on the meadow the sheep are grazing as if the sun had been up for hours. Right down in front, a little bird rising from his nest amid the long grass, flies straight up—up as if he would reach the very sky. His song is so glad, so pure, so joyous, that you cannot help envying him the voice that sends forth such a hymn of praise. Farther on, from the top of the hill we see fields on fields of waving grain, backed in the distance by the green woods that look so mysterious with their cold blue mist. Here and there a pine outstripping his fellows tosses up to heaven his sturdy arms. The sky is now full of its morning glory and radiant in gold. We can hardly fancy, as we look round on the smiling earth, that lust and vice and wickedness could ever come to mar such loveliness as this.

UP-HILL.

Does the road wind up-hill all the way?

Yes, to the very end.

Will the day's journey take the whole long day?

From morn to night, my friend.

But is there for the night a resting place?

A roof for when the slow dark hours begin.

May not the darkness hide it from my face?

You cannot miss that inn.

Shall I meet other wayfarers at night?

Those who have gone before.

Then must I knock, or call when just in sight?

They will not keep you standing at the door.

Shall I find comfort, travel-sore and weak?

Of labour you shall find the sum.

Will there be beds for me and all who seek?

Yea, beds for all who come.

—*Christina Georgina Rossetti.*

ON CO-EDUCATION.

BY JANE LOVELL ADAM, TORONTO.

OF late few subjects have been more eagerly, and one is inclined to say more fruitlessly, discussed than this one of co-education. I say fruitlessly, because in the conflict of opinion on one side and the other, it is difficult to arrive at safe conclusions, or to feel assured that the education of the sexes in mixed classes is altogether proper and desirable. In the general discussion of the subject on both sides there are indiscreet advocates and a mass of testimony more or less influenced by partizanship. On the one hand it is asserted that woman's capacity to undergo mental labour, to follow severe study, or do severe work that shall stand by the side of man's work, is limited by the physiological differences in the sex and by the special functions of women. This, it is claimed, were there no other reasons on the score of delicacy and propriety, makes it perilous for women to enter the race with men for university honours, and, disdaining any privileges of sex, to engage in educational contests, in studies which shall specially fit them for male occupations and pursuits. On the other hand, it is as confidently affirmed, that there is no sex in mind, or, at least, that sex must be excluded in considering the wants of those desiring to take advantage of higher education; that women are as capable as men of receiving and sustaining the strain of severe intellectual training; that in every sphere of life in which women have been allowed free scope and encouragement, they have been admirably successful; and, specially, that experience has proved

that in institutions where co-education obtains their regularity of attendance, assiduity, application, and the results of their work have been equal to those of the other sex; while there has been nothing in the demeanour or mode of life of women who attend lectures with men to give rise to the slightest apprehension or give occasion for unfavourable reflection. Without presuming to say which of these conflicting opinions is more nearly correct, one may at least assert the right of women to make the best they can of the educational machinery at their disposal, and commend the purpose of any of the sex to nourish and exercise their facilities to the utmost. If the state provides no separate college for women, and all are not agreed that there is necessity for this, it is hard to deny them the right to take advantage of the academic training in concert with men. The intrusion of women into class-rooms hitherto monopolized by the other sex may at first offend prejudice and possibly by the novelty of the act disturb order where it exists; but prejudices are not always reasonable, and the social disabilities of women are, for good or for evil, quickly being numbered with the things of the past. It may not be safe yet to say what is the training most appropriate to women, or what are the fields of activity and usefulness which they can with dignity and respect best enter. The industrial development of the present day, it is well-known, has deprived women of many of the occupations they could once profitably pursue within the limits of their

own dwellings, and this has to be borne in mind, as well as the necessities of many of the sex, in considering the question of expediency and propriety in women seeking to fit themselves for new pursuits. These, however, it is well to remember, may be sought and obtained at the sacrifice of much that is womanly in woman. Society would suffer much in losing the refining influences of the sex; and how

long these influences would be operative if women, deserting the home and the household, were to enter fields of occupation already over-crowded by men is a question one may well ask. Co-education need not be quarrelled with, but, it will be seen, that it has a bearing on the political and social relations of the race which is not bounded by the mere methods of academic training, and mental acquirement.

SANITARY CONDITION OF RURAL SCHOOLS.

BY J. DEARNESS, ESQ., INSPECTOR OF SCHOOLS, EAST MIDDLESEX.

MARTIAL, the father of epigram, crystallized a large part of the human experience of his day in the short sentence: *Non est vivere, sed valere vita*—"Life is not living, but the enjoyment of health." After the experience of seventeen centuries more, our own poet, Thomson, sung: "Health is the vital principle of bliss." No doubt the paramount importance of health to happiness will be acknowledged to the end of time. It is universally admitted to be easier to preserve health than to recover it, that health once lost is difficult or impossible to regain; yet few seem to think about preserving it until they find that they are losing or have lost it. To get and keep wealth, a hundred times as much trouble and anxiety seem to be exercised as to get and keep health; but let disease lay hold on the money-seeker, and you may see him eager to spend his last dollar, could it but purchase that which he carelessly lost or deliberately threw away.

The life and health of the young, occupy only a small portion of the attention which they deserve. A

funeral cortege passed along Talbot street the other day. Some one inquired "Whose funeral?" Reply, was made, "It's only a child's." The answer does not strike one as unfamiliar. The public mourns the departure of a life whose work seems to us well-nigh accomplished; but the loss of the life of a child with all its untold possibilities is deplored only by the household. Indeed some good people talk, as if they think one of the chief uses of children is to afford the Father of all Good a means of visiting on families blessing in affliction. Strange, that God, while He walked on earth manifest in the flesh, should delight in daily moving among the people, blessing the children, raising the palsied, casting out devils, and healing all manner of diseases, as was read in our hearing this morning, but, that God in heaven should look with complacency on the suffering of our little ones prostrated on beds of racking pain that they cannot understand at all, for the sole benefit of us, older sinners. No: the truth taught us by statistics, is that over one-fourth of all the lives, that God gives our race, are

sacrificed in early youth to the devils of sin and ignorance and uncleanness (foul air).^{*}

Much mischief comes from the over-estimation of the strength and hardiness of youth. On a chilly day in late September thirty children sat in an unwarmed school-room, the little girls shivering, their cheeks and lips blue with cold. A trustee of the school when told that "the stove should be put up at once or those children will get their death of cold," replied, "Oh they're young and strong; when I was like them, I could stand anything." It is often in youth that the seeds of invalidism and weakness are planted, and in no other period of life is greater precaution necessary for the preservation of health. Begin to train a man when he is young to live long and well. The fallacy that the only care, growing boys and girls require, is to be dosed and nursed through the whooping-cough and measles, must be eradicated before the mission of the sanitarian is fulfilled.

I have read somewhere that infant mortality in old London has decreased by one half since mortuary statistics were first compiled. So much for the progress and benefits of sanitary science. But the high rate of mortality yet prevailing among children, even in the most favoured districts and countries, is a disgrace to our civilization. Nations and politicians should be keenly exercised over the frightful facts revealed by these tables of mortality. It is difficult to estimate the pecuniary value to the nation of an average life. We know that before the American war the slave-dealer thought an able-bodied black worth from 1,500 to

2,000 dollars. Perhaps, no one here would venture to estimate the millions of dollars lost to our country by preventable mortality; yet it would not be a long sum in addition to tell how much the Government spends annually in the only effective remedy—the diffusion of hygienic knowledge among the masses. I am a politician who believe it is the duty of our country to spend more money in preserving the lives we have, and less on the importation of foreigners. Herbert Spencer truly writes: "To the tens of thousands that are killed, and the hundreds of thousands that survive with feeble constitutions, add the millions that grow up with constitutions not so strong as they should be, and you will have some idea of the curse inflicted on their offspring by parents ignorant of the laws of life. Consider, but for a moment, that the regimen to which children are subject is hourly telling upon them to their life-long injury or benefit, and you will have some idea of the enormous mischief that is almost everywhere inflicted by the thoughtless, haphazard system in common use." It is too true that few in middle life are in the enjoyment of continuous vigorous health, and could a thorough investigation be made it would most probably be found in respect to the majority of the others that the seeds of their disease or weakness were sown in childhood. How often do we see an apparently strong man succumb in the prime of life to some malady or epidemic to which others are equally exposed yet escape. The immediate cause of his death is charged to the disease, but who can say that the cause of inability to resist it does not date back as far as, or further than, his school-days.

Seeing, then, that such tremendous issues hang on the right preservation of the health, and the proper development of the strength of youth, it is

^{*} Out of 22,206 deaths registered in the Province of Ontario in 1881, the latest year for which a report is published, 9,510 deaths, or 43 out of every 100, were of persons under 21 years of age. For the preceding five years the percentage of deaths under 21 years has varied from 39 to 44 1

fitting that this convention should give earnest consideration to the subject of school hygiene, which is second in importance to only one other subject that could occupy your attention—the hygiene of the nursery.

I have endeavoured to make this paper supplementary to an able address on School Hygiene delivered by Dr. Oldright before the Provincial Teachers' Association, which I hope may be printed in the Annual Report of the Board of Health, where it would be read by many who may not see the printed proceedings of the former body.

School Hygiene naturally admits of treatment under two classes of topics, one referring to the character and conditions of the school house and its appurtenances, the other to the exercises specially designed and practised to promote the health and develop the strength of the children. It is to the former class of topics chiefly, and as rural schools particularly are affected, that I now invite your attention. These topics will be treated in the following order:

- 1st. Site.
- 2nd. Ventilation and Warming.
- 3rd. Water-supply.
- 4th. Sewerage.
- 5th. Furniture.
- 6th. Cleanliness.
- 7th. School age.

SITE.

In rural sections where land is comparatively cheap, and choice not confined to one particular spot, there is seldom excuse for locating the school in an unwholesome or unsuitable situation. In my district, only about eight per cent. of the schools are located in unnecessary proximity to swamps or stagnant water, or on sites extremely difficult or impossible to drain properly. Very few sites

contain less than half an acre, still fewer more than one acre. A site of two or three acres with ample room for woodshed, play-shed, outhouses, rows of trees, flower plots, and a teacher's residence exists only in the dominion's dreams. Not very many of the sites are drained, and very few have suitable provision for outdoor play and exercise in wet and stormy weather. Trustees seem, in selecting a site, to bestow more attention on its elevation than on its aspect. If it costs a few dollars more to purchase a site affording a southern aspect for the school-house than one that makes the school open towards the north, they buy the cheaper. On the roads running east and west in the district, there are nearly as many houses facing the north as the south. The former are, as a rule, colder and more comfortless, with a larger consumption of fuel, and consequently greater expense therefor; and in such, there are more trouble and more necessity to keep the outside porches and storm-doors in good repair. They lack the genial and health-giving influence of an open doorway filled with sunlight on the bright spring days; the front yard remains damp and muddy much longer, and the flower-beds, where such are made, are not so attractive. It is generally preferable to build the school-house near the back of the site. Then the front door opens out into the playground, and affords the teacher opportunity for supervision of the children during play-time; the windows are less liable to be broken than if the school-house were in the middle or front of the yard, and the boys' and girls' private yards can be more effectually separated.

VENTILATION AND WARMING.

The problem of ventilation is at once the most important and difficult

with which school authorities have to deal. In a school favourably situated and equipped from a sanitary point of view, the pupils—educated by the ideal teacher, intellectually, morally, aesthetically and physically—ought to grow wiser, better, happier and stronger every day. Ordinarily, the most of them do grow wiser; but do they grow stronger and healthier? In Dr. Oldright's paper, already referred to, he answers the question by simply pointing to the contrast between the appearance of the children at the close of the school-term and at the re-opening after the vacation. The same answer is given by contrasting the school at the beginning and close of winter. By parity of reasoning, you would expect to find the appearance and condition of the children more favourable in March than in June, but anyone acquainted with rural schools at least, knows that the contrary is the case. The open window suspends the rule. Why is it that in the winter season, when other people are gaining weight and vigour, school children and teachers are losing energy and appetite? The trustees and children are proud of their substantial, air-tight, comfortable brick school-house. Forty, fifty, even sixty or seventy children assemble; school is called; the day is chilly or cold; and consequently the doors and windows are all closed. How long is the air in that room fit for respiration: About ten minutes. What then? Breathe it over and over again; and so the process of devitalization and poisoning goes on and on. "But they're young; they can stand it." Recess comes and gives temporary relief. Fortunately, it is a difficult matter to keep doors shut at recesses and at noon hours.

Analysis of ordinary out-door air, shows that it always contains about $4\frac{1}{2}$ parts of carbonic acid in 10,000. The analysis of air made under the

direction of the "Health of Towns Commission," appointed by the British Government, showed that the air in the streets of Manchester, perhaps the smokiest city in the world, contained varying proportions from 6 to 15 parts in 10,000. Other analyses furnished the following figures: a stable, 7 parts in 10,000; another stable, 14; a crowded railroad car, 34; a close bed-room in the morning, 48; a crowded lecture-room at the close of a lecture, 67; and, *worst of all, a school-room, 72 parts in 10,000.* Dr. A. Endemann, an analytical chemist of New York, at the direction of the Board of Health, made analyses of the air taken from several of the city schools. He certified that an examination of the air in one of the class rooms, while one of the windows was open, gave 17 parts of carbonic acid in 10,000; the window was closed ten minutes; another examination of air taken then yielded 32 parts, and he adds, "if the accumulation had been allowed to continue we might have reached within an hour the ratio of 110!" Dr. Dalton, the physiologist, says air can no longer sustain life when the proportion of carbonic acid reaches 200 parts in 10,000. Hence it is no hyperbole to say that when the proportion of carbonic acid reaches 100 parts in 10,000; *i.e.*, 1 cubic foot in 100, as probably quite frequently occurs, the children and teacher are *half dead*.

But were our children living in school-rooms and sleeping-rooms, the atmosphere of which were vitiated by ten times its normal quantity of carbonic acid only, the case would not be so serious as it is. Dr. Carpenter writes that "the true poisonous agent which produced such fatalities as the Black Hole of Calcutta, and others of a like kind, is the organic matter always found in air rendered foetid by prolonged respiration, the cutaneous exhalations of a crowd

of human beings, the deficiency of oxygen, and the consequent increase of putrescent matter in the body." Through Mr. Alexander, of Galt, I quote from Dr. Billings, Surgeon-General of the United States Army: "The really dangerous and oppressive impurities are the organic matters thrown off in respiration, and as these increase, the carbonic acid increases in like proportion. Now the testing for these organic matters in a quantitative point of view is a very difficult and delicate process, whereas the examination for carbonic acid, is comparatively simple; hence the chemical test of the quality of the air, is made by the analysis for carbonic acid, which is taken as an index for the really harmful impurities existing." Prof. Leeds says, "the young active, growing brain demands the purest and the best air, and is most sensitive to foul." Another eminent authority says: "In all climates and under all conditions of life, the purity of the atmosphere habitually respired, is essential to the maintenance of that power of resisting disease, which, even more than the ordinary state of health, is a measure of the real vigour of the system. For owing to the extraordinary capability which the human body possesses of accommodating itself to circumstances, it not unfrequently happens that individuals continue for years to breathe an unwholesome atmosphere without apparently suffering from it; and then when they at last succumb to some epidemic disease, their death is attributed solely to the latter, the previous preparation of their bodies for the reception and development of the zymotic poison being entirely overlooked."—*Carpenter's Physiology*, page 326.

"The poisonous effluvia which pervade the atmosphere is not only re-breathed; it adheres to all the surroundings; it sticks to the floor, wall and furniture; and permeates the

clothing. Besides lessening the vital force, it predisposes to blood poisoning, and becomes a hot-bed for the reception and propagation of such poisons as scarlet fever, measles, diphtheria and a source of scrofula and consumption."—*Dr. Bell in the New York Sanitarian*.

But it is useless to multiply authorities. The effect, except in a few cases, is far removed in point of time and circumstance from the causes, that the public cannot be alarmed. One view of the case may be closely pressed, as it is more easily seen, and strikes home in so many quarters; that is, the influence of the school atmosphere as a prolific source of consumption, proved by its influence on the health and life of teachers. I have known of thirteen teachers who have died, as the saying is, "in the harness;" five by accident, and every one of the others by consumption.

Dr. Workman has made a careful estimation from the tables of the Registrar-General and arrives at the conclusion that the average life of the teacher is 38 10-12 years, and further, from the same tables, he shows that the proportion of deaths from consumption among teachers is greater than among sempstresses and, in fact, lower than in only one other occupation. If, then, life in the school-room is so prejudicial to the health of the adult teacher, what must it be to that of the tender undeveloped child? The cause is not far to seek. Dr. McCormack of Belfast, in his work on the relation of re-breathed air to pulmonary consumption, asserts that it (re-breathed air) is the sole and constant cause of this disease. Prof. Leeds says consumption is almost entirely the result of re-breathed air; and that it is as preventable by the exclusive use of pure air as *mania a potu*—drunkenness—is by the exclusive use of pure water.

The man who invents a practical

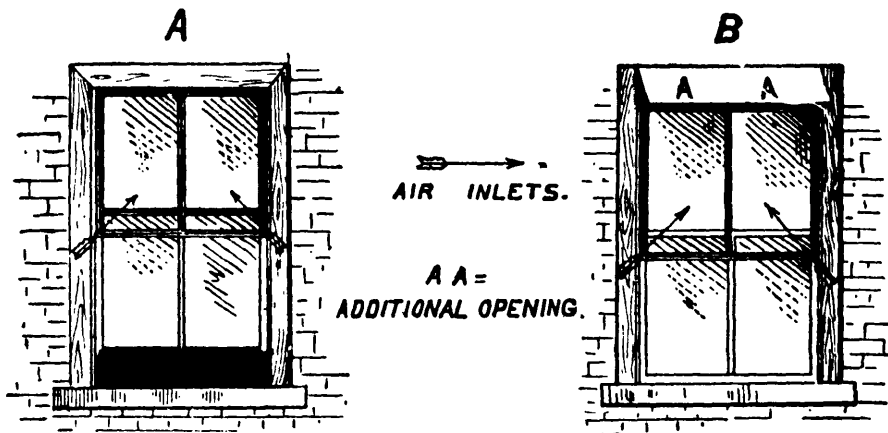
foul air alarm will be a great benefactor to the human race. What a blessing it would be to have an instrument hanging in every church, school-house, public hall and sleeping-room, which would, as soon as the foulness reaches, say 10 or 12 parts of carbonic acid in 10,000—*i. e.*, two or three times the normal quantity—set up a ring-ding-ding-ding, like a fire alarm. The preacher and the teacher would be silenced, and the snorer disturbed until pure air be supplied by some means.

EXPEDIENTS FOR VENTILATION.

Medical and scientific authorities agree that school-rooms should be provided with 1,000 cubic feet of air space per pupil, and also with the means of changing that amount three times per hour. I do not know of any school-house so well provided. The average cubical capacity of the rural schools in this division is 267 cubic feet per pupil. Thirty-two per cent. have ventilators in the ceiling. The chief purpose served by these is to make the school cold in the winter. Nine per cent. are fitted with flues or ventilators in the walls or chimneys. I have tried to get trustees to have the upper window sashes adjusted so that they can be lowered and closed. Seventy-nine per cent. of the schools are now fitted with movable upper window sashes, but only about fifty-five per cent. with window sashes hung by weights over pulleys, and I find in practice that it is only the latter which are made really effective for the purposes of ventilation. It is not indispensable that the weights be hung in the inside of the frame. If it is too much trouble to put the weights there after the house is finished, let the pulleys be fixed to the top of the frame, and the weights move up and down in front of the sides of the sashes. Two schools have stoves enclosed in jackets which

are supplied with currents of fresh air by ventiducts leading from the outside. Ventilation by the windows is the most common method. Unfortunately some teachers exercise but little judgment in using this means. Occasionally one finds a window opened on the windward side of the school house, and the breeze blowing strongly against the heads of the children sitting near it. Teachers should ever hear Dr. Angus Smith's warning ringing in their ears: "Though foul air is a slow poison, a blast of cold air may slay like a sword." The death of a delicate child attending a school adjoining the city resulted from exposure to draft. A few weeks ago I was informed of the case of a boy who contracted congestion and inflammation of the lungs by sitting near a drafty window in our city High School. The case was so serious that for several days the doctor and friends despaired of his recovery. Windows should always be opened on the leeward side of the house, unless they are provided with appliances that will give the draft a sharp upward flexion. The latter object is accomplished by placing a strip the length of the window frame, the width of the opening, and the thickness of the frame under the lower sash (see Diagram A). The raising of the under sash accomplished in this way makes an entrance for the air between the sashes. It is less trouble to fix a strip of board under the top of the frame at a sharp angle with the top bar of the upper sash (see "AA" in Diagram B), and then lower the sash. If the window is on the windward side the sash may safely be lowered an inch or two, or if on the leeward side, pulled down to make an opening of eight or twelve inches.

Ventilation, by heating air drawn by flues from the outside in a chamber constructed round the stove, is an excellent method, but the chamber should be fitted to the stove in such



a way as to expose part of the metal so that wet or cold feet can be dried or warmed at it. A register may be placed in the floor under where the stove will stand. The register draft may be fed by two zinc or galvanized iron pipes leading air from the outside, or by a matched covering of the joists between which the register is placed. In either case the flues, whether zinc or wooden, should be so close as not to allow the air "from the cellar" to be drawn into the house. Such a chamber as this feeds a strong current of fresh warm air all the time that there is a fire in the stove.

Speaking of ventilating flues, it may be safe to state as a rule, they are practically useless in rural schools, unless they are warmed by the smoke flue's passing through them, or are heated in some other way. It is really surprising to find how many people think cold air and pure air are identical. I have several times, on complaining of the ventilation of the room, heard the command given a pupil to "close the damper."

One seldom sees an evaporating pan on the stove, or any other means adopted to maintain the proper hygrometric condition of the air in the school-room. It is not generally

known that external air at freezing point brought into a room heated to 65° or 70° requires at least four times as much moisture as it contained outside.

"I wish I had time," said Prof. Leeds, in a lecture before the Franklin Institute, "to explain the dreadful effects of this want of moisture in all our artificially heated rooms. The air in winter is very dry, the moisture is squeezed out as the water is squeezed out of this sponge. But as you heat it you enlarge its volume again, and it sucks up the moisture just as this sponge does, and if you do not supply this moisture in other ways it will suck the natural moisture from your skin and from your lungs, creating that dry, parched, feverish condition, so noticeable in our furnace and other stove-heated rooms. Few persons realize the amount of water necessary to be evaporated to produce the natural condition of moisture, corresponding with the increased temperature given the air in many of our rooms in winter. Air taken in at ten degrees and heated up to seventy—the ordinary temperature of our rooms—requires about nine times the moisture contained in the original external atmosphere, and if heated to a hundred degrees—as most of our hot air fur-

naces heat the air—it would require about twenty-three times the amount in the external atmosphere.”

In concluding my remarks on ventilation, I give the common and simple test for excess of carbonic acid. Fill an eighth oz. vial with pure water (rain or distilled); empty out the water in the room, the air of which you desire to test. Emptying the bottle of water allows it to fill with the air of the room. Pour into the bottle half an oz. clear lime water and shake thoroughly. If there is no perceptible milkiess or turbidity the air does not contain more than eight parts carbonic acid in 10,000. If a half oz. of lime water shows turbidity in a six oz. bottle, there is at least eleven parts in 10,000; if the same in a two oz. bottle shows turbidity, it indicates upwards of forty parts in 10,000.

WARMING.

The usual method of warming rural schools is by a cast-iron box-stove placed near the front door. In a few cases it is screened to protect the pupils whose seats are near the stove from direct radiation of the heat; but usually no such protection is provided; nevertheless, pupils—salamanders they might be called—are found willing to sit all day in close proximity to the hot stove. Some teachers, pupils, and parents do not seem to have the least idea of the great danger of sitting for hours in a temperature of 100 degrees, and then running out into the cold, with little or no extra wrapping. If pupils have to sit near the stove trustees should see that it is screened by some means. The *Scientific American* has highly recommended an open ventilating stove called the “Fire on the Hearth;” and I have read strong recommendations by Prof. Johonnot, author of “School Architecture,” and some Normal School Principles, of that or a similar ventilating stove for use in schools.

It is evident that a heater combining the advantages of a box-stove and an open fire-place, is a *desideratum* for the school-room. This is a point which I hope will be discussed at this meeting.

Not many rural schools are supplied with a thermometer. Where it is supplied it must usually be regarded as more ornamental than useful. I knew of one case, but only one, where the “stove monitor” took his stoking orders, not from the teacher, but from the silent monitions of a thermometer. His instructions were to keep the mercury between 63 and 70 degrees. Every school-room should have one or two thermometers, not for show but for daily use. Teachers should be particular that no child should sit long in a part of the room that is either much too hot or too cold.

A few old-fashioned teachers still retain a practice that was once quite common—that of writing, classifying and numbering the “Rules of the School,” and posting them up in the room. The practice is becoming obsolete, because the modern teacher is finding out that there is more law and rules written in the heart and conscience of a child than he can post on the back of the biggest door. But I once saw a catalogue of “Rules, Offences, and Punishments,” that had in it a rule, not written in the conscience of the average school-boy, and which I fear, does not often cross the mind of many a better teacher than the maker of the rule. It was this: *No scholar may sit in school with wet feet.* How do you enforce this rule? “When I think occasion requires it, I say, after assembling: ‘All in the room with wet feet stand up.’ Those who stand have either to put their stockings under the stove or go home to change them.” If such a rule as this were generally observed, children would become less careless about getting their feet

wet, and they would not have nearly so many colds and allied complaints. On days when mothers may know from condition of the weather, roads, or shoes, that their children can hardly avoid getting their feet wet they ought to provide them with an extra pair of stockings to be exchanged for the wet ones on their arrival at the school-house. Few causes will more certainly produce sickness than sitting all day with wet feet resting on a cold floor.

LIGHTING.

A few years ago it was not uncommon to place windows in the end of the room in front of the children. But the increase of hygienic knowledge and the demand for more black-board have almost removed this evil. In Germany, by law, light must be admitted either from the ceiling¹ or from one side only, and the seats and desks must be placed so that when the pupils are reading or writing the light will be supplied from their left. The height of the window-sills from the floor should always be as great as possible. The nearer the approach to lighting from the roof the better. Robson, the best English authority on the subject, says the sills should never be less than five feet from the floor, and may be even more, with advantage both for lighting and ventilation. Dr. Linell, of Norwich, Conn., who has studied the subject very carefully, says that windows should always be on the *side* of the room, and there should be thirty square inches of window space to every square foot of floor space. He has recently examined the eyes of 700 school children varying from seven to eighteen years, and found that only 61 per cent. of them had normal vision. In that number there were 87 cases of myopia, the ratio of myopia increasing with the ages of the scholars. Much responsibility rests on the

teacher in this matter. Diseases of vision from causes peculiar to the school-room most frequently arise from improper postures of the body, and wrong habits of holding the book. The teacher must be blamed if the children, during the writing exercises, crouch over the desk until their noses are within two or three inches of the slate or paper.

WATER SUPPLY.

In rural schools, even more than in urban, a plentiful supply of wholesome water is necessary, because the children at the former do not go home for their dinner, but at noon hour eat a dry luncheon, generally swallowed hurriedly, as they are in haste to proceed with their play. I say *generally*, because a few teachers require the children at the beginning of the noon recess to get their dinners from their baskets, return to their seats, spread a napkin or piece of paper, and, in an orderly manner, partake of their repast before they go out to play. Sitting in a dry, hot room produces thirst; this, many of the children increase by bolting a luncheon at intervals in the middle of exciting play, and that, during the warmest hour of the day in the summer; consequently they drink a comparatively large quantity of water. They are not often over fastidious as to the quality of the liquid with which they wash down their luncheons or quench their thirst. If the pump is not in working order, or the pail be empty, they eat snow or run to the nearest spring. I have heard of their dipping water out of the road-side ditch. A good well in a school-yard is invaluable. It ought to be carefully lined with stone or brick; the upper part of the lining should be laid in water-lime to make it impervious to soakage from the surface or the burrowing of rats, frogs, etc.; it should be supplied with a strong pump, hav-

ing a "let-off" below the reach of the frost, that cannot be closed summer or winter. It should be covered with an absolutely close covering, laid on with sufficient slant to run the waste water off. Your thirst would be great if you could drink the water after seeing three or four children standing with dirty feet at the pump-spout washing their sweaty hands and faces and all the washings audibly trickling down into the well. Under no circumstances should be omitted the duty of pumping the well empty, if possible, two or three times a year, or at least just after the spring thaw and again at the end of the summer vacation.

The plan of carrying water in a pail from a neighbor's is not to be commended. The supply is apt to be irregular and insufficient, not to speak of the annoyance and inconvenience often occasioned to the neighbor whose well is thus appropriated by the school section. The corner of the school-room where the pail stands is often in a disgusting condition. The leavings are thrown on the floor, dust sticks, filth collects, at last mud has the monopoly. Then the school-pail; it is enough to say it is usually wooden and unacquainted with hot water. The pail plan should be tolerated only when it is impossible to get pure water on the school ground. The probability of getting good water should invariably be considered in the selection of a site.

In this division, last spring, I found that forty-five per cent. of the schools were supplied with wells and pumps in working order. Twenty-eight of these—more than half—were considered pure and wholesome; eight of them doubtful; and the rest were pronounced bad and unfit for drinking purposes. Thirty per cent. depended entirely upon the neighbours. In some of these cases the water is carried in a pail, whether the snow is

a quarter of a mile or more. The remainder drew their supplies from springs, resorted to expedients that came most convenient, such as eating snow, or did without altogether. Nothing about the average school seems to receive more severe letting alone from those whose duty it is to keep them in order than the school well and privies. Not one well in twenty is properly lined and covered, consequently it soon needs cleaning; the cleaning is neglected; it goes from bad to worse; the well gets a bad name, and it not unfrequently happens that it is allowed to cave in and gradually fill up.

Before the summer holidays, I mailed a circular to every school section, from which the following is an extract: "When decaying earth worms, frogs, snakes, rats, sewage or rotten wood are in the well, the water becomes unwholesome, and the well should be cleaned out. Perhaps the best test for such organic impurities, in inexpert hands, is to put one or two drops, or enough to give a pink colour, of a solution of permanganate of potash in an ounce vial of the suspected water. The solution should be of the strength of eight grains of permanganate to an ounce of pure water—distilled water, or filtered rain water caught in the open, or the London water-works water will do nearly as well, if more convenient than the others. If the water be unfit for drinking the colour will be discharged, or bleached, in about twelve hours, and usually the impurity may be seen precipitated at the bottom of the vial. The test is more satisfactory if a similar bottle of pure water be treated the same as the suspected sample and placed along side it for comparison." In some cases where this simple test was applied it resulted in the well's receiving a thorough cleaning. The average distance of the nearest privy from the school

well in this district is thirty-nine yards. I have not heard many complaints of the pollution of the water from this cause. In one school section, No. twenty, London, where diphtheria violently broke out, the head of a family that lost five members told me that he attributed the disease to the proximity of the school well to the site of an old filled up privy vault. This brings me to the subject of

SEWERAGE.

The description of the out premises of country schools given by Prof. Church, of Greenville, at the Sanitary Convention held there last year, is so graphic and generally applicable that I cannot help repeating it here. He said:—"On many school premises one may see a mean, dilapidated building, bearing all possible marks of disrespect and execration, remote from the school-house, difficult of approach to sensitive pupils at all seasons of the year on account of its publicity. In the winter snow sifts in at numerous crevices; the northern blasts make it a veritable cave of the winds; in the winter it is as comfortable as an iceberg; in summer as malodorous as Tophet." One of the particulars he enumerates is not so generally applicable as the others, that is the remoteness. I know several cases where more remoteness would be very desirable. Most people have a lively fear of drinking water contaminated by such sewage, but few fear disease from air thus polluted. An instance of death and disease from the latter cause occurred at Pittsfield, Mass. Partly because of its boasted salubrity, a ladies' seminary was established there and well patronized. But through ignorance or carelessness foul gas from the vaults and cess-pool at times pervaded the building, and as a consequence, fifty-one out of the seventy-seven young ladies in the institution were attacked with

typhoid fever, of whom thirteen died. Thorough investigation, conducted by Doctors Palmer, Ford and Earle, proved that the polluted air was the cause of the epidemic. In most cases the rural school closet consists of a vault over which is constructed a small frame building. These usually last for many years without being emptied or disinfected. I am sure they are a source of much harm and danger to the health of children. The system ought to be radically changed. The old-fashioned vault is falling into disrepute with sanitarians everywhere. No class would hail a practicable reform of this evil more heartily than school-trustees. I believe they would readily adopt an inexpensive dry-earth closet, if its working could be clearly explained, and its advantages shown.

The official regulations on school accommodation require that there be separate offices for the sexes, and that the entrances be screened from view. In this district there are three schools out of the hundred with only one closet; only about thirty-five or forty are properly screened from the general play-ground and school windows. Four have urinals attached to the boys' closet. These are useful in keeping the seats clean. Nine are reported to be regularly disinfected, the disinfectants being lime, chloride of lime, road-dust, or ashes.*

FURNITURE.

Reference will be made to seats and desks only. In this particular, I believe East Middlesex is the most favoured county in the province. The seat and desk best combining con-

* DISINFECTANTS.—Chloride of lime, — sprinkle around dry; copperas (sulphate of iron), — dissolve in the proportion of one pound in a gallon of water, and wash or sprinkle with the solution; whitewashing with lime. — put some copperas solution in the white-wash. The chloride of lime is put up in close half-pound boxes at five cents each; copperas is about five cents a pound.

venience, comfort, elegance, and cheapness, that I have ever seen, is a pattern manufactured by Bennett Bros., London, East. It is adopted in about one-third of the schools of this district. The seats in nine of our schools are very ill-constructed; they slope downwards to the front; in twenty-one schools the seats are so high that many of the smaller children cannot, while sitting back on the seat, rest their feet on the floor; in ten schools the desks are so low, and the seats so high, that their occupants cannot maintain while writing or ciphering, a properly erect position. None, except those of the pattern referred to (it is not patented), are constructed with proper curvature of the seat and back suited to preserve the natural shape of the body.

The importance of correct seating can hardly be over-estimated. "To the badly constructed seats and desks," says Dr. J. C. V. Smith, "we can trace in some measure the cause of so many distortions of the bones, spinal diseases, and chronic affections now so prevalent throughout the country." Another authority, Dr. Woodward, blames defective school seating as the cause of numerous instances of deformity of the spine, especially with delicate female children. In rural schools there are always pupils of widely varying sizes and ages, and consequently there should be three or four sizes of seats and desks in all such school-rooms. To aid in maintaining the upright posture of the occupant, the seat should be placed so close to the desk that the inside edge of the latter should slightly overlap the front of the former.

CLEANLINESS.

On a little reflection one would naturally conclude that few houses require to be more frequently and thoroughly swept, dusted, scrubbed, and whitewashed, than a school-house.

But I am ashamed to confess that few inhabited houses are more neglected in some of these respects than the average school. One of my schools is swept twice a week, six three times, two four times, and the rest daily. In nearly half the schools, the trustees leave the sweeping to be done by the children and teacher. In such cases it is generally done at noon, and often children may be dimly seen eating their luncheons in a cloud of dust. Not more than a third of the teachers report provision for dusting, after the dust has had time to settle; hence in most cases, the proportion of it that is not inhaled by the children, or settled on the floor, is wiped up by the children's clothes when they use their seats and desks. One teacher reports that his school has been scrubbed only once in five years, another twice in five years, and a third that neither he nor the pupils know when it was last scrubbed; in fact that there is no record that it ever has been. The average number of times the school-houses in this district have been scrubbed is four times in three years. I have no statistics on the whitewashing, but I do not think the schools are whitewashed on an average more than once in four years. Two of my schools have been finished in rough plaster which is marked off to represent stone. On their rough walls the dust and effluvia of the last ten years at least, have found an easy and undisturbed resting place. My reports and recommendations in favour of whitewashing, are usually made in vain. It is not that trustees are afraid of having their school-houses two wholesome, bright, and cheerful, but that they have great difficulty in getting men to do the work for what they are willing to pay.

Some of our rural schools are clean, sweet, bright, and attractive, tastefully adorned with motto, picture and

flower ; but the number of such is too few. The description I have given portrays as correctly as I am able, the average surroundings, from a sanitary point of view of the schools in this, the best county of the Province.

In view of these facts, you will agree with me that the Provincial Board of Health has ample opportunity to effect much good by disseminating a knowledge of sanitary science applicable to our public schools.

SCHOOL AGE.

In conclusion, I ask a discussion on the question of the best age for the commencement of systematic education. My more limited experience corroborates that of Superintendent Harris of St. Louis, who says that children entering school at the age of eight years, are generally further advanced at thirteen than those entering at five. I have read that while the gray matter of the brain is but partially developed, no exercise of the reflective faculties or mental efforts involving exercise in abstract ideas should be allowed,—that all formal labour of the mind required before the seventh year, being in opposition to the laws of nature will prove injurious to the mind. Further, that such ossification of the lower vertebræ of the spine as will permit much resting of the body in a sitting posture, without injury, does not take place until the seventh year. If these statements be facts, the conclusion is inevitable that the minimum school age should be increased from five years as at present, to seven years at least. I am convinced by reasons other than the above, that a child of

but five years is too young to commence school. If we increase the minimum age to six years, we shall be in company with fifteen of the United States in this matter, and still a year below the minimum age prescribed in France.

The belief is gaining that intellectual contraction, and even moral obliquity can be traced directly to bad digestion. Let us spread the belief. If parents were anxious to rear their children good vigorous animals, as they seem to have them intellectual prodigies, or prim, fashionable young misses, it would be vastly better for the race. Even the schoolmaster might rejoice, for his work of educating would be thereby rendered far more easy and successful. Were our boys and girls to live amidst favourable physical, mental, and moral surroundings, until they are fourteen or fifteen years of age, then—even were all props and guards torn away—they would in all likelihood continue to grow straight and strong. To accomplish this end, may you put forth every effort, and not weary until finally you, or those who wear your mantle, will be rewarded with complete success. Speed the time when dyspepsia and hypochondria will give way on every hand to vigorous digestion, the bounding pulse and their accompanying high spirits ; when the *mens sana in corpore sano* will be the rule and not the exception ; when instead of that formidable list of two hundred and forty-nine diseases classified in your first annual report, the number may in your last be reduced to euthanasia in old age and perhaps *thanatici*.

THE LOSS OF THE S. S. "STATE OF FLORIDA."

BY JOHN HARPER, RECTOR OF HIGH SCHOOL AND SUPERINTENDENT OF SCHOOLS, QUEBEC CITY.

Alas ! 'tis true ; the dismal tidings ring
Within our ear the gurgling throes of souls
O'erwhelmed by ocean, smiling treacherous :
The heart-wrung shriek of hope o'ercome ascends
To smite the star-lit heavens that seem to laugh
Ironical at fate, whose callous sweep
Enforces life to join the life beyond.
At sunset, when the golden rays shot forth
From twilight's diadem, all then was peace :
No rage was in Atlantic's breath ; the sea,
Itself, was mirror to the traveller's hope
Of haven-rest assured ; and round such hope
Perchance in one fond heart,* there warmly gleamed
Anticipation's cheer of friendships won
And oft renewed in Scotia's dear-loved realm.
No cloud of ill presaged the midnight woe :
With heedless, tensioned pride, the great ship throbbed
To kiss the coy horizon's crowning line,
Disdainful of the jealous swell which deemed
The embrace its own ; and men and women slept
Confiding in the wanton strength which dares
The crested storm and flouts the staying calm.
Fate holds, howe'er, no counsel with the skill
Which man can boast : its unrelenting grasp
• Reveals no law which he can tame his own :
The pride of all his toil is but the sphere
Whose soapy film breaks at a moment's breath,
To pass within the yeast of chaos, God controlled.

GRAMMAR.—Young pupils do not learn half as much good grammar from their text-books as they do from their teacher, if she is accurate and choice in her language. A pupil may decline the pronoun I, a hundred times, and repeat the rules for the objective case as often, and he will say "Susan gave the flowers to Mary and I," if his teacher

uses such constructions. On the other hand, if his teacher says, "She gave it to Mary and me," he will say the same, though he never looked into a grammar. *Corollary 1*—A child would never use bad grammar, if it never heard bad grammar. *Corollary 2*—Children are, in language, much as are their models.—*Educationist*.

* The writer's friend, Mr. Walter King, of Toronto, was among those who were lost in the shipwreck.

UNIVERSITY WORK.

MATHEMATICS.

ARCHIBALD MACMURCHY, M.A., TORONTO,
EDITOR.SOLUTIONS TO PROBLEMS IN
MARCH NUMBER.

J. I. Cox, B.A., Coll. Inst. Collingwood.

1. Obtain an expression for the sum of the products of the first n natural numbers three and three together.

1. $(1+2+3+\dots+n)^3 = 3(1+2+3+\dots+n)(1^2+2^2+\dots+n^2) - (1^3+2^3+\dots+n^3) + 6P$ (when P represents the sum of the products 3 at a time.)

$$\therefore \left\{ \frac{n(n+1)}{2} \right\}^3 = 3 \frac{n(n+1)}{2} \cdot \frac{n(n+1)(2n+1)}{6} - 2 \left\{ \frac{n(n+1)}{2} \right\}^2 + 6P$$

$$\text{and } P = \frac{(n-1)(n-2)n^2(n+1)^2}{48}.$$

2. Find the sum of the products of every three terms of an infinite geometrical progression.

2. $(a+ar+ar^2+\dots+ar^{n-1})^3 = 3(a+ar+\dots+ar^{n-1})(a^3+a^3r^3+\dots+a^3r^{3n-2}) - 2(a^3+a^3r^3, \text{ etc.}) + 6P$.

$$\left\{ \frac{a(1-r^n)}{1-r} \right\}^3 = 3 \frac{a(1-r^n)}{1-r} \cdot \frac{a^3(1-r^{3n})}{1-r^3}$$

$$- 2 \frac{a^3(1-r^{3n})}{1-r^3} + 6P.$$

From which P may be obtained.

3. Find the sum of the cubes of a series of quantities in A . P .

$$\begin{aligned} 3. a^3 + (a+b)^3 + (a+2b)^3 + \dots \\ \left\{ a + (n-1)b \right\}^3 \\ = a^3 + (a^3 + 3a^2b + 3ab^2 + b^3) + \dots \\ \left\{ a^3 + 3a^2b(n-1) + 3ab^2(n-1)^2 + (n-1)^3b^3 \right\} \\ = na^3 + 3a^2b \left\{ 1+2+\dots+(n-1) \right\} + 3ab^2 \\ \left\{ 1^2+2^2+\dots+(n-1)^2 \right\} + b^3 \\ \left\{ 1^3+2^3+\dots+(n-1)^3 \right\} \end{aligned}$$

$$= na^3 + 3a^2b \frac{n(n-1)}{2} + 3ab^2 \frac{(n-1)n(2n-1)}{6} + b^3 \left\{ \frac{n(n-1)}{2} \right\}^2.$$

4. Show that if $x^r + py^r + qz^r$ is exactly divisible by $x^3 - (ay+bz)x + abyz$, then $\frac{p}{ar} + \frac{q}{br} + 1 = 0$.

4. $x^3 - (ay+bz)x + abyz = (x-cy)(x-bz)$, $\therefore x^r + py^r + qz^r$ must be divisible by $x-ay$ and $byx-bz$.

\therefore by substituting $\frac{x}{a}$ for y and $\frac{x}{b}$ for z ,

$$x^r + p \cdot \frac{x^r}{a^r} + q \cdot \frac{x^r}{b^r} = 0.$$

$$\therefore \frac{p}{a^r} + \frac{q}{b^r} + 1 = 0.$$

5. In how many ways can $2n$ men be arranged in couples?

5. Two men can be taken from $2n$ in $\binom{2n}{2}$ ways. Two men can be taken

from $2n-2$ in $\binom{2n-2}{2}$ ways, etc.,

$$\therefore \text{total number ways} = \frac{\binom{2n}{2} \times \binom{2n-2}{2} \times \binom{2n-4}{2} \times \dots}{\left\{ \binom{2n}{2} \right\}^n}.$$

6. If $(by-cx)^2 = (b^2-ac)(y^2-cz)$, prove that $(bx-ay)^2 = (b^2-ca)(x^2-az)$.

$$\begin{aligned} 6. (by-cx)^2 &= (b^2-ac)(y^2-cz) \\ \therefore b^2y^2 - 2bcxy + c^2x^2 &= b^2y^2 - b^2cz - acy^2 + ac^2z \\ \therefore -2bcxy + cx^2 &= -b^2z - ay^2 + acz \\ \therefore -2abxy + acx^2 &= -ab^2z - a^2y^2 + a^2cz \\ \therefore b^2y^2 - 2abxy + a^2x^2 &= b^2x^2 - ab^2z - acx^2 + a^2cz \\ \text{i.e., } (bx-ay)^2 &= (b^2-ca)(x^2-az). \end{aligned}$$

7. Solve the equations

$$yz + zx + xy = 3.$$

$$y^2(y+z) + xz(x+z) + xy(x+y) = 3.$$

$$y^2(y^2+z^2) + xz(z^2+x^2) + xy(x^2+y^2) = 3.$$

7. The given equations may be written in the following form :

$$yz + zx + xy = 3. \quad (1)$$

$$(x+y+z)(yz+zx+xy) = 3. \quad (2)$$

$$(ax+xy+yz)(x^2+y^2+z^2) - xyz(x+y+z) = 3. \quad (3)$$

∴ from (1), (2) becomes $(x+y+z) - xyz = 1$.

$$\therefore x+y+z-1 = xyz \quad (4)$$

∴ substituting from (1) and (4) in (3),

$$3(x^2+y^2+z^2) - (x+y+z)^2 + (x+y+z) = 3.$$

$$2x^2 + 2y^2 + 2z^2 - 2xy - 2xz - 2yz + (x+y+z) = 3.$$

$$2(x+y+z)^2 - 4(yx+yz+zx) + (x+y+z) = 3.$$

$$\text{from (1) } 2(x+y+z)^2 + (x+y+z) - 15 = 0.$$

$$x+y+z = -\frac{1 \pm \sqrt{121}}{4} = -\frac{1 \pm 11}{4} = -3 \text{ or } \frac{5}{2}$$

$$\text{Taking } (x+y+z) = \frac{5}{2}, \therefore \text{ from (4) } xyz = \frac{3}{2}$$

$$\therefore -yz = \frac{3}{2x}$$

$$(1) \ yz + x(y+z) = 3, \therefore \frac{3}{2x} + x\left(\frac{5}{2} - x\right) = 3.$$

$$2x^2 - 5x^2 + 6x - 3 = 0.$$

$$(x-1)(2x^2 - 3x + 3) = 0.$$

$$\therefore x = 1, \text{ or } x = \frac{3 \pm \sqrt{-15}}{4}$$

and values may be obtained from y and z .

8. If $\sqrt{x+a+b} + \sqrt{x+c+d} = \sqrt{x+a-c} + \sqrt{x-b+d}$, then $b+c=0$.

$$8. \ \sqrt{x+a+b} - \sqrt{x+a-c} = \sqrt{x-b+d} - \sqrt{x+c+d}$$

$$\frac{(x+a+b) - (x+a-c)}{\sqrt{x+a+b} + \sqrt{x+a-c}} = \frac{(x-b+d) - (x+c+d)}{\sqrt{x-b+d} + \sqrt{x+c+d}}$$

$$= \frac{(x-b+d) - (x+c+d)}{\sqrt{x-b+d} + \sqrt{x+c+d}}$$

$$\therefore \frac{b+c}{\sqrt{x+a+b} + \sqrt{x+a-c}} = \frac{-(b+c)}{\sqrt{x-b+d} + \sqrt{x+c+d}}$$

$$= \frac{-(b+c)}{\sqrt{x-b+d} + \sqrt{x+c+d}}$$

$$\therefore b+c=0.$$

SOLUTIONS TO PROBLEMS.

BY WILBUR GRANT, C. E., TORONTO.

1. A hollow cylinder closed at both ends is filled with water and held with its axis horizontal; if the whole pressure on its surface, including the plane ends, be three times the weight of the water, compare the height and diameter of the cylinder.

1. Let r = radius of cylinder,

" h = height "

then area of each end of cylinder = πr^2 ,

" surface " = $2\pi r \cdot h$.

Depth of $C. G.$ of cylinder below highest point

r , fluid pressure on surface of cylinder

$$= \{2\pi r \cdot h + 2\pi r^2\} r. \quad \{ \}$$

weight of water in cylinder = $\pi r^2 \cdot h \cdot \rho \cdot g$.

$$\{2\pi r \cdot h + 2\pi r^2\} r \cdot \rho \cdot g = \pi r^2 \cdot h \cdot \rho \cdot g.$$

$$h + 2r = \text{diameter.}$$

2. Find whole pressure on an equilateral triangle immersed in water whose side is

8 feet and vertex 10 inches below the surface, the base being horizontal.

$$2. \ \text{Area of triangle} = 16\sqrt{3} \text{ sq. ft.}$$

$$= 16 \times 1.7320 \text{ sq. ft. nearly,}$$

$$= 27.712 \text{ sq. ft.}$$

Depth of $C. G.$ of triangle below surface of

$$\text{fluid} = \left(\frac{2}{3} \text{ of } 4\sqrt{3} + \frac{5}{6}\right) \text{ ft.}$$

$$\text{fluid pressure on triangle} = 16\sqrt{3}$$

$$\left(\frac{16\sqrt{3} + 5}{6}\right) \times 1000 \text{ oz.}$$

$$= 151093\frac{1}{2} \text{ oz. nearly.}$$

3. A pipe 15 feet long closed at the upper extremity is placed vertically in a tank of the

same height; the tank is then filled with water; if the height of the water-barometer

be 33 feet 9 inches, determine how high the water will rise in the pipe.

3. Let x = height of water in tube,

" a = area of cross section of tube,

$$\frac{15}{15-x} = \frac{a \cdot 15 - x \cdot 1000 + 33\frac{3}{4} \times a \times 1000}{33\frac{3}{4} \times a \times 1000}$$

$$= \frac{15-x + 33\frac{3}{4}}{33\frac{3}{4}}$$

$$\frac{x}{15-x} = \frac{15-x}{33\frac{3}{4}}$$

$$x = \frac{255}{8} \pm \frac{255}{8} = 60 \text{ or } 3\frac{3}{4} \text{ ft.}$$

$$\therefore 3\frac{3}{4} \text{ ft. height in tube.}$$

ARITHMETICAL PROBLEMS.

1. If a certain weight of gold be worth 16 times the same weight of silver, and the weights of equal volumes of silver and gold be as 8:10½, find the value of a cube of gold which, were it silver, would be worth \$66 664.

Ans. \$1400.

2. \$350. Feb. 15th, 1884.

Three months after date I promise to pay Messrs. Smith & Fudger, Toronto, the sum of \$350 with interest at 6·08½ per cent. for value received.

(Signed). JOHN REID.

How much must John Reid pay to discharge this note when due?

Ans. \$355 25.

3. On March 1st, 1884, John Smith sold James Bruce a horse for \$225, and took his note for the same at 3 months. He then gets this note discounted at the bank at 8½ per cent., and finds he has cleared \$10 25 by the sale. What value did John Smith place on his horse?

Ans. \$210.18½.

4. A building 30 feet by 20 feet is to be covered with lead, so that the roof shall be ½ of the flat. Find the cost, supposing one square inch of lead to weigh ½ oz., and to cost 21 shillings sterling per 112 lbs. (Ans. in dollars and cents).

Ans. \$240.90.

5. A rectangular garden is to be cut from a field of the same shape, so as to contain 2½ acres. One side of the field is taken for one side of the garden and measures 5 chains. Find the difference in length between the two adjacent sides of the garden.

Ans. Even.

6. The length of a room is ½ more than its breadth, and it costs \$50 to cover the floor with carpet 30 inches wide at 75 cents per yard. Find the length of the room.

Ans. 25 feet.

7. A square field containing 3 acres, 4 square perches is enclosed by a wire fence 5 strands high. Find the cost of the fence in Canadian currency if wire costs 27½¢. per yard.

Ans. \$108.90.

8. A room is 30 feet long and 15 feet high. The area to be papered is equal to 2½ times the area to be carpeted. Find the width of the room.

Ans. 20 feet.

CLASSICS.

G. H. ROBINSON, M.A., TORONTO, EDITOR.

The following ludicrous translation of sentences on the Latin Grammar Paper [*vide infra*] deserve to be preserved for incorporation in the third series of the "Diversions of a Pedagogue."

(a) *Historionis est sui oblivisci.*

An historian is apt to forget himself.

He is to be forgetful of his own history.

He ought to forget his own actor.

It belongs to history to forget.

It is his duty to forget history.

It is possible for an actor to forget his part.

It is the history of myself that I have forgotten.

It is the part of history to forget him.

It is customary to forget one's history.

(b) *Tricens stipendia meritis erat.*

He deserved three stipends.

He had deserved three hundred stipends.

He deserved the thirtieth reward.

He deserved the third money.

Tricens had deserved the payment.

He was worth three stips.

He had earned his salary 300 times.

(c) *Hæc flocci aestimat.*

He counts them by flocks.

(c') *Urbem oppugnandam curabit.*

He cured the city of fighting.

UNIVERSITY OF TORONTO.

ANNUAL EXAMINATIONS, 1884.

All the Years.

LATIN GRAMMAR.

Examiner—George H. Robinson, M.A.

1. Decline in combination *ille acrior vindex, hic imus fulgor, certamen anceps*.

2. What peculiarities in the declension of *soli filia, laurus, jugerum, vas, fames, carbasus*.

3. Compare *inferus, dives, sacer, male, diu, nuper*.

4. Express in Latin: six times, ½, 1884, January 6th, 2000 men.

5. Conjugate *pluo, iuro, misceo, maneo,* *mordeo, fatcor, pario, melo, apiscor, sancio.*

6. Write down, if found, (a) the pres. subj. 3 sing. of *prosum*: *edo, fero*, act.; (b) fut. 1 sing. indic. act. of *uolo, fero, inquam*; (c) pres. imperat. 2nd pl. *nolo, memini, fero*.

7. Form adverbs from *gratia, dies, fundus*, and give the indefinite, demonstrative and relative forms correlative of *ubi*, where.

8. Explain the terms: predicative root and root stem. What are the roots of *aux, cete, agmen, integer, tollo*?

9. What is the case construction of *laedo, circumvenio, iuro, adeo, consulo, nubo, similis, potior, moderor* and *ego*?

10. "It is not the preposition that gives the force to the case, but the case that gives the force to the preposition." Explain fully what is meant, and illustrate by examples.

11. Translate and give the rule of syntax for the italicised words: *Quid sibi vult? Haec fluxus aestimat. Urbem oppugnandam curabit. Histrionis est sui oblivisci. Tricena stipendia meritis erat. In eo est ut proficiatur.*

12. Express in *oratio obliqua*:

Respondit: Transii Rhenum non mea sponte sed rogatus et arcessitus a Gallis. Ego prius, in Galliam veni quam populus Romanus. Quid tibi vis? Cur in meas possessiones venis.

First Examination.

LATIN.

Examiner—William Dale, M.A.

I.

Translate:

Q. Fabius Maximus . . . permansisset.

—Livy, XXII., ch. 9.

1. Parse: *orsus, consulendos, bellatum*.
2. Explain the use of the conjunctions: *jussit* and *permansisset*.

3. *Peccatum a G. Flamini*. Explain.
4. Write a brief explanation of *lectisternium, ver sacrum*, and *ab diis orsus*.

5. Give an account of the consulship of *Emilius Paulus* and *Terentius Varro*.

II.

Translate:

Quantum distet ab Inacho

Miscetur cyathus pocula commodis.

—Horace, Odes III.

1. Give the scale of the metre and scan the two first lines.

2. *Mercemur*. Parse and explain the use of the mood.

3. Explain the syntax of *ignibus, frigori-bus, lunae, quota*.

4. Translate:

Immunis aram si tetigit manus,
Non sumptuosa blandior hostia
Mollivit aversos Penates
Farre pio et saliente mica.

—Id.

III.

Translate:

Haec pater . . . agebat.

—Virgil, Aeneid VIII.

1. *Inducitur artus*. Explain the syntax.

2. Explain: *Lemnius, Acolius oris, Te-graemum*.

3. Translate, with explanatory notes:

(a) *Hic mihi magna domus, celsis caput urbibus, exit.*

(b) *Hic iter inceptum celerant rumore secundo.*

(c) *His fretus non legatos neque prima per artem*

Temptamenta tui pepigi.

(d) *Haud procul inde citae Mettum in diversa quadrigae*
Distulerant — at tu dictus, Albane, maneres!

First Year.

LATIN.—HONOURS.

Examiner—George H. Robinson, M.A.

I.

Translate:

Consules satis exploratis . . . pugna vigerent manus.

Livy, Book XXII.

1. Parse: *communium, nactus, dirigit, constrictum, vigerent*.

2. Distinguish: *ultra, trans; quia; quod; testor, attestor; culpa, vitium*.

3. Explain the phrases: *qua parte, vel*
MIN.

4. Give the chief rules for *oratio obliqua*.
5. *Dabat.* Explain the origin of the Latin Imperfect in *ham*, and account for the quantity of the connecting vowels in the various conjugations.

II.

Translate:

(a) *Queritur Sicilia . . . recusare non possis?*

—*Cicero, In Caecilium.*

(b) *Tantane vobis . . . Tullio me apponite.*

—*Id.*

1. Give a sketch map of Sicilia.
2. Derive: *tritici, crimine, provincia, quaestor, quin.*
3. Write brief notes on: *modius, sestertius, columnam Marciam.*

4. Explain the legal terms: *actor, petitor, album iudicum, cognitor, procurator, praerjudicium, subscriptor, recuperator, praevari-cator.*

5. Why was the actio called *Divinatio*? On what grounds did Caecilius base his claims? How did Cicero oppose his claims?

III.

Translate:

Atque, haec . . . colludere plumas.

—*Virgil, Georgics, Bk. I., vv. 351-369.*

1. Scan vv. 352, 359.
2. Explain all subjunctives in the extract.
3. Explain the sense of: *aridus fragor, vento impendente, littora misceri.*
4. *Colludere.* What is the exact force of *con* as a prefix?

5. Point out and explain any syntactical peculiarities in the extract.

IV.

1. Give rules for the quantity of mono-syllables, with exceptions.

2. Name the chief Roman and Greek writers on Agriculture.

3. "Whenever the tenour of his subject brings Virgil face to face with facts and scenes which contain the capabilities of fine description or deep feeling, he never fails to

discern and use his opportunity." Illustrate from Book I. the truth of this statement.

4. What were the chief materials for writing history within the reach of Livy? In how far did he use them? What are the merits of his style?

V.

Translate:

Ad haec consultanda . . . in dextera sacratam esse.

—*Livy, Book I.*

MODERN LANGUAGES.

JOHN SEATH, B.A., ST. CATHARINES, EDITOR.

NOTE.—The Editor of this Department will feel obliged if teachers and others send him a statement of such difficulties in English History, or Moderns, as they may wish to see discussed. He will also be glad to receive Examination Papers in the work of the current year.

ERRATA IN APRIL NO.

2. In ll. 2 and 3 of "Answers to Correspondents," read "unless will and shall are unemphatic."

2. For "directing the condition," read "describing the condition."

ENGLISH.

QUESTIONS BY X. Y. Z.

Give the kind and the relation of the subordinate propositions in:

1. It was then that I felt the need of it.
2. It is time that we were starting.
3. It was from him that I got it.
4. Where were your eyes that you did not see it?
5. What were you thinking of that you did not stop him?
6. It is not here that I know of.
7. With the noisy shouters for the new, because it is the new, and with the sullen sticklers for the old, because it is the old, these pages have little to do.
8. The prisoner, as will be seen by the testimony, had been seen, etc.
9. If you find him in the office, as you very likely will, ask him to, etc.

And of the infinitive phrases in:

10. It would be impossible for such a result to happen.

11. He agreed to accept their offer.

12. He did not take long to make up his mind.

13. He is reported to have left town.

14. What would it benefit you to do that.

ANSWERS TO CORRESPONDENTS.

(1) and (3). For Abbott's explanation of these constructions, see "How to Parse," par. 500. Abbott's explanation does not seem to be wholly correct. He says that in "It was then that the Danes came first to England," the subordinate clause is equivalent to "The Danes' Invasion." He has not, however, noticed that *then* is equivalent to "at that time," and that consequently the sentence is of the same form as "It was of you that I spoke," which he proceeds to explain on another principle. "That I spoke" in the latter sentence is nearly equivalent to "my speaking," and it is unnecessary to assume a transposition of which we have no historical proof. (1) above is nearly equivalent to "My feeling the need of it was then"; and (3), to "My getting it was from him"; the subordinate clauses in both being substantive. Other sentences in English show that a clause introduced by "that" has often this value. For example, "That he is a rogue is well known," is equivalent to "His being a rogue is well known." And "It was owing to you that I failed" (one way of emphasizing "Owing to you" in "Owing to you I failed"), which is of the same form as (1) and (3), is evidently equivalent to "My failure (or failing) was owing to you." Such shading off from this, as (1) and (3) show often occurs in analogous English constructions.

(2) of the same principle is equivalent to "It is time (for) our starting." The subordinate clause is, therefore, substantive, but adjectival in relation to "time."

(4) The subordinate clause here is adverbial of Consequence. It is equivalent to, "Where were your eyes (so) that you did not see it?" or declaratively, "Your eyes were not there

(so) that you did not see it." The "so" is, of course, adverbial to the predicates.

(5) is construed in the same way.

(6) The antecedent of *that* in the adjective sentence, is the noun idea in the principal one.

(7) In English Sense, constructions are frequent. This sentence is equivalent to, "With those who shouted noisily for the new, because, etc.," in which the subordinate clause is adverbial to "shouted." In the sentence proposed, the subordinate clauses are adverbial to the verbal sense implied in "shouters" and "sticklers."

(8) and (9) Qualifying expressions (adjectives and adverbs and their equivalents) have one grammatical force (they are always qualifiers) and often two logical ones—a descriptive or co-ordinative, and a limiting or restrictive one. For example, "His red blood flowed from his wounds." In this "red" and its equivalent relative clause are merely descriptive, although grammatically adjectival. In "An honest man would scorn the deed," "honest" and its equivalent relative clause are limiting or restrictive, and the sense would be incomplete if this attribute were not expressed. In accordance with these principles, in

(8) and (9) the "as's" are adverbial conjunctions and the subordinate clauses are adverbial with a logical co-ordinative force. (For Abbott's view, see "How to Parse," par. 208). The use of "as" as an adverb in this construction may be seen from the following statements:—"As" is etymologically "also," *i.e.*, "just as" or "exactly so." It was often used thus:—"He is dear to me *also* (*i.e.* "as") my father" (see *Mason* under "as" adverbial), in which the meaning is nearly equivalent to "He is dear to me; "Also (just so) my father is dear." We have only to suppose this meaning weakened, and a slight connective force added, and we have such a construction as in (8) and (9). The strongest arguments against taking "as" in such constructions as a relative pronoun are that. (1) it is not a relative in early English, and (2) in synthetic languages its analogue is generally an adverb.

(10) In this, "such a result to happen" is the object of "for," "result" being the subject of the infinitive, and the infinitive being what some call "an indirect predicate." The infinitive (an attributive word) and its subject form a sort of complex object. (This use of "for" is peculiar. This and some other points in regard to connectives will be taken up in the next No. of the C. E. M.)

(11) "To accept" is gerundial, adverbial. The construction is the analogue of "He agreed to the acceptance of their offer."

(12) The infinite clause is gerundial, adverbial to "did take," being equivalent to "in making up his mind"; but the "to" is properly used. (See any good grammar on the radical meaning of "to").

(13). In the active voice, this is, "(They) reported him to have left town," in which "him to have left" is of the same nature as "such a result to happen," in (10) above—the complex object of "reported," "to have left" in the passive construction becomes a sort of subjective complement, as the infinite, being verbal, is an attributive word. It is not, however, the same as Mason's subjective complement; for the verb is complete (not incomplete as Mason says of such verbs), the meaning being "His having left town is reported."

14. "It" is anticipative of "to do that." We should not be misled as to the construction, because we may take the sentence to mean, "What would it benefit you if you did that?"; for "To do that would not benefit you" is the logical—not the grammatical—equivalent of "It would not benefit you if you did that." See remarks under (8) and (9).—ED.

SENTENCES FOR CRITICISM.

CONTRIBUTED BY MR. STRANG, GODERICH.

1. Yet the vaguest notions prevail as to the amount of this waste, even by those who have paid attention to the subject.

2. The whole chapter on temperance looks as if, after being put in type, it was shaken in a bag, and that then, the impression was made.

3. Mr. G. perhaps prefers this sound, though none of the dictionary makers do, or any one who speak English correctly.

4. The medical profession are already doing more than ought to be expected of its members.

5. He thought that the teachers should endeavour to repress the practice of the pupils, of throwing stones, as far as possible.

6. The King had charged him, therefore, to provide fit lodging and entertainment for him till he had time to see him.

7. We have been led to make a close examination of the books, to see if they be what some rival firms have declared them to be, or if they be all that their publisher asserts.

8. There is enough to say without filling the child up with such absurd stuff as this. If there was any penalty attached to the leading astray of babes and children, we might have better books from G. and Co.

9. They intend holding a parlour concert at the residence of Mr. T. J., who has now the largest in town, and is admirably adapted for the purpose.

10. Any one intending to use Portland cement this fall, it would be to their advantage to call and see me at once.

11. In answer to the prayer, Neptune sent a monster from the sea, by which the horses of Hippolytus were terrified, ran away, and killed their master.

12. A public meeting will be held on Monday evening, at which Mr. A. will address the electors, in addition to several other prominent gentlemen.

13. Another time he will probably think it better to go to sleep on some other person's steps, instead of those belonging to the police station.

14. An urgent appeal was made to all friends of the University, to boldly make demand to the State, to more liberally support the Provincial college.

15. Every picture is guaranteed to be the work of the popular artists whose name they bear.

16. None of the readers appointed for the

occasion appeared, and what is more indefensible, failed to find substitutes.

17. The sale of these patterns in Canada has been more than all the others combined, and if the increase goes on, I will again have to double my facilities.

18. I look forward to a time when every new dress will require a pattern, especially when made up in the home, and that more taste and economy will be inculcated by this home practice.

19. Mutual Marriage Aid Association. The following benefits have been paid during the last year, any of which will give information by enclosing a stamp for a reply.

20. The mechanical work was executed in Canada, and is pronounced by the most competent judges, superior to the rival series manufactured abroad.

21. There are others, whose names we could give, if necessary, that have shook the clay of Dakotah from their feet, and bade adieu to that territory.

22. He is a person whom we feel sure will represent the college with honour both to himself and every party concerned.

23. If English orthography represented English pronunciation as closely as the Italian does, at least, half the time of teaching to read and to spell, would be saved.

24. There will be no obstacle to his retaining command of a regiment with which his name has long been identified, and to whose untiring zeal and patient attention, it owes much of its present efficiency.

PARKHILL HIGH SCHOOL.

Eng. Literature.—Goldsmith.

Remote, unfriended, melancholy, slow,
Or by the lazy Scheldt or wandering Po;
Or onward, where the rude Carinthian boor
Against the houseless stranger shuts the door;
Or where Compania's plain forsaken lies,
A weary waste expanding to the skies;
Where'er I roam, whatever realms to see,
My heart untravell'd fondly turns to thee;
Sill to my brother turns, with ceaseless pain
And drags at each remove a lengthening
chain.

TRAVELLER.

1. (a) Explain "remote," "slow."

(b) Is the epithet "lazy," applicable? Cf Collins' "by rapid Scheldt."

(c) Explain "rude"; contrast its meaning in Gray's "rude forefathers."

(d) Explain ll "5" and "6." (e) Has "untravell'd" an active or a passive force?

(f) Explain l, "10" fully. (g) Name the figures in the extract, and classify them as figures of etymology, syntax, rhetoric, or prosody. [28]

2. Classify G's writings under the heads: *Dramas, Essays, Poems, History and Novels*, and criticize his efforts in each class. [20]

3. "The Traveller had a didactic purpose." What was it? Was it successfully accomplished or not? Give reasons for your answer. [8]

4. Characterize G's style as a poet. Name his (a) beauties (b) defects. [10]

5. Give examples of "Archaism," "Poetical License," "Pathos," and "Self reference," in the "Traveller." [8]

6. Irving speaking of Goldsmith, says: "The apothegm '*the child is father of the man*,' was never more fully verified." Prove this by comparing his *character and life* in each condition? [8]

7. What evidence is there in the "Traveller," to show the date of its composition? [10]

8. Name the writers contemporary with Goldsmith, arranging them according to their ability in each department of literature. [100]

PARKHILL HIGH SCHOOL.

WEEKLY WRITTEN EXAMINATION.

Eng. Literature.—Gray's Elegy.

1. "The breezy call of incense-breathing morn,
The swallow twittering from the straw-built shed,
The cock's shrill clarion, or the echoing horn,
No more shall rouse them from their lowly bed."

(a) Give a critical exposition of this stanza. [8]

(b) Explain the epithets "*incense-breathing*," "*straw-built*." [4]

(c) Write notes on "clarion," "echoing-horn." [4]

(d) Point out in the above stanza the figures of "Accumulation," "Euphemism," "Metonymy." [6]

2. "For who, to dumb forgetfulness a prey,
This pleasing, anxious being e'er resigned,
Left the warm precincts of the cheerful day,
Nor cast one longing, lingering look behind?"

(a) Carlyle says: "There is much tender beauty in this stanza." Show wherein the "tender beauty" consists. [8]

(b) Explain the meaning of ll. 1 and 2 of this stanza (1) with "prey" in apposition to "who" (2) with "prey" in apposition to "being." [8]

(c) How can existence be both "anxious" and "pleasing"? [4]

(d) Why is "Forgetfulness" called "dumb"? [2]

(e) What figure in (1) "who...e'er," (2) in the last line? [4]

3. What is the pervading tendency of

Gray's Poems (as he himself says)? To what is it most likely due? [4]

4. Name any proofs of the esteem in which the elegy is held? [4]

5. Elucidate the references to "Hampden" and "Cromwell." [6]

6. Explain "living lyre," "spoils of time," "pious drops," "lowly bed." [8]

7. Quote from the elegy lines similar in construction or sentiment to the following:

(a) "Beckoning shadows dire,"

(b) "Where Kings have troiled and poets wrote for fame,"

(c) Ah me! what boots us all our boasted power,
Our golden treasures and our purple state?

They cannot wait the inevitable hour,
Nor stay the fearful violence of fate,"

(d) "Or drive his venturous ploughshare." [3-4]

8. Quote any lines from the elegy, depreciatory of *trade*. [2]

9. "Perhaps in this neglected spot is laid," etc. From the stanza, beginning thus, and the six succeeding ones, form a contrast, (using your own language) between a *private*, *humble* life, and a *public*, *famous* one.

NATURAL SCIENCE.

H. B. SPOTTON, M.A., BARRIE, EDITOR.

SELECTED EXAMINATION QUESTIONS.

CHEMISTRY.

(Questions preceded by an asterisk are suitable for First Class candidates.)

*1. State the reasons for believing that the atomic weight of oxygen is 16.

2. Show how water may be proved by experiment to consist of 11.1 per cent. of hydrogen and 88.9 per cent. of oxygen.

*3. State Avogadro's Law, and give the reasons which have led to the theory.

*4. How would you show that nitric oxide contains half its volume of nitrogen and half its volume of oxygen.

5. What reasons have we for thinking the air to be a mixture and not a chemical compound?

*6. How many c.c. of oxygen, measured under a pressure corresponding to 1 metre of mercury, and at a temperature of 0°C., can be obtained from 1 gram of potassium chlorate? What will be left in the retort, and how much?

7. Explain the action of hard water on soap.

*8. Show how to determine by experiment the composition of carbon dioxide.

9. Sulphur is burned in oxygen. Compare the volume of oxygen used with that of the sulphur dioxide produced.

*10. Write equations representing the following reactions :

Nitric acid on copper.

Manganese dioxide on hydrochloric acid.

Sulphur dioxide on nitrogen trioxide and water.

Hydrochloric acid on iron.

Heat on manganese dioxide.

Red hot charcoal on carbon dioxide.

*11. What are the reasons for supposing that ozone may be represented by the formula O_3 ?

12. How may the following compounds of sulphur be prepared from the element:—hydrogen sulphide, sulphur dioxide, sulphuric acid, carbon disulphide ?

13. A body is found on analysis to have the following percentage composition:—C, 52.18; H, 13.04; O, 34.78. Have you sufficient data for determining the formula? Give reasons for your answer.

14. Define "allotropy," and describe experiments to show that red phosphorus is an allotropic form of ordinary phosphorus.

15. What weight of manganese dioxide will be required to fill with chlorine a chamber $9.1 \times 10 \times 3$ metres, at $27^\circ C.$, and 748 mm. Bar ?

*16. What anomalies are presented by the vapour densities of phosphorus, sulphur, and mercury? How are these variations from the general law explained?

*17. The vapour density of arsenic trioxide is 10.37 (air = 1). Calculate the molecular weight and formula of the substance.

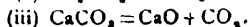
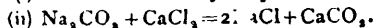
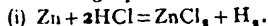
18. Calculate the percentage composition of mercurous nitrate, $Hg_2(NO_3)_2$.

($Hg = 200$; $N = 14$; $O = 16$.)

19. How many litres of ammonia, measured at $15^\circ C.$, and under a pressure of 740 mm. Bar., can be got from 53.5 grams of ammonium chloride?

20. How many litres of chlorine are required to completely decompose 10 litres of C_2H_4 ?

*21. Classify the reactions represented in the following equations:



22. What is meant by the "nascent state"? How is the increased activity of bodies in this state accounted for?

*23. Describe any method of determining the atomic weight of a metal.

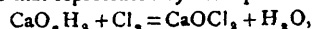
*24. Distinguish "valency" from "atomicity." What is the atomicity of each of the following: Zn, Pb, C, Ag, Cu, P, S?

*25. What are "rational" formulæ? What is the advantage of using them? Illustrate with reference to sulphuric acid.

*26. What is the advantage of "graphic" formulæ? Write graphic formulæ for sulphuric acid, phosphorus pentoxide, and potassic sulphate.

*27. What is the difference between a mortar and a cement? To what is the hardening of mortar due?

*28. If the reaction of chlorine on lime were that represented by the equation



what weight of slaked lime would be converted into bleaching powder by the action of the Cl contained in a chamber $10 \times 15.2 \times 2.5$ metres, at 740 mm. Bar., and $23^\circ C$? ($Ca = 40$; $Cl = 35.5$).

*29. What volume of CO_2 , at $15^\circ C$ and 749 mm. Bar., will be necessary to convert one kilogram of sodium carbonate ($Na_2CO_3, 10H_2O$) into bicarbonate ($NaHCO_3$)? What weight of chalk must be decomposed to yield this quantity?

*30. Describe the preparation of potassium. Represent the reaction by an equation.

*31. What is an alum? Write the formula of any one.

*32. Describe the Dutch process for the manufacture of white lead.

*33. What is galvanized iron? What metal would you class with zinc, and why?

SCHOOL WORK.

DAVID BOYLE, TORONTO, EDITOR.

COUNTY OF WELLINGTON PROMOTION EXAMINATIONS.

(Continued from April No.)

ENTRANCE TO FOURTH CLASS.

SPELLING—TIME, THIRTY MINUTES.

To be read slowly and distinctly, and the greatest care taken that each pupil understands every word. Each sentence to be first read in full, the pupils simply paying attention, then again slowly, the pupils writing.

1. Fritz's eyes fairly danced.
2. A punctual discharge of the sluicer's duties.
3. He cast a lingering and agonizing look upon the setting sun.
4. As M. Bachand had rightly conjectured, they were fast asleep, and totally unconscious of the devouring element.
5. What a noble resolve was made, and how heroically executed.
6. The crew who felt it their duty to ask from the Lord Commissioners of the Admiralty.
7. Scorching, crackling, blazing as it was, he went through it for a few short moments of agony.
8. A touch of generosity seemed to come over him.
9. They were all dressed in what is called v. yageur costume.
10. To these admirable arrangements must be ascribed the brilliant results which ensued.
11. I reflect with sorrow and astonishment on the little competitions, factions, and debates of mankind.
12. Correspondent, leisure, eminent, remembrance, fatigue, disguise, penury, ardor, patriotic, frigate, sceptre, pageantry.

Value, 100—4 marks to be deducted for each mistake.

This paper is not to be seen by the candi-

ARITHMETIC.

1. *A* had a field of 3 acres; he sold it all but 3 roods in four equal lots. What was the size of each lot?

2. Find the least number which, divided by 675, 1050, and 4368, will leave in each case 32 as a remainder.

3. *A* sold a load of oats at 30 cents a bushel, and with $\frac{2}{3}$ of the proceeds he bought 16 yards of cloth at 80 cents a yard. How many pounds of oats were there in the load?

4. When 14 oxen cost \$539, what is the cost of 96 sheep, if 5 sheep are worth as much as 2 oxen?

5. *A* has only 25-cent pieces. *B* has only 20-cent pieces; how can *A* pay *B* \$3.20 for a hat?

6. A man bought 2 horses and a wagon for \$210; he pays for each horse twice as much as he does for the wagon. What does he pay for each horse?

7. Write in figures twenty-three billions, two thousand and four, and in words 100030003.

8. Thirty-three telegraph posts, placed at equal distances, extend a mile; how far apart are the posts?

9. In a certain length of fencing, it is found that whether the posts be put 8, 9, or 10 feet apart, there is always 6 feet over; find the length of fencing.

10. Simplify $\frac{1}{2}$ of $(3\frac{1}{2} - 2\frac{1}{4}) \div \frac{3}{8}$ and $\{\frac{1}{4} - \frac{1}{8} + \frac{1}{8}\} \div \{\frac{1}{4} - \frac{1}{8} + \frac{1}{8}\}$.

11. Find the product of .47 and .00432; and find the quotient of 4.08 by .0016.

12. *A* owns $\frac{1}{3}$ of a farm, *B* $\frac{2}{3}$ of the remainder, and *C* the rest. *A* has 60 acres more than *C*; how many acres has each?

Time—Two hours. Total value 120, but 100 marks are to count a full paper.

GEOGRAPHY.

1. Define latitude, longitude, meridian, watershed, channel, promontory, beach and lake.

2. Name the cities of Ontario, rivers of United States and bays of South America.

3. In what county do you find Collingwood, Goderich, Port Dalhousie, Harriston, Orangeville, Brockville, Lindsay, Cornwall, Petrolia and Madoc.

4. Name the Provinces of Dominion of Canada with their capitals and chief exports.

5. Name and locate ten of the largest cities in the United States

6. What and where are, Calgary, Chaleur, St. Rouge, Havanna, Magdalena, St. Pierre, Port Arthur, Sable, Georgia, Brandon, Hull, Moncton, Severn, Rainy, Sorata, Aspinwall, Vera Cruz, San Juan, Kickinghorse, Burrard.

Value—1, 8; 2, 15; 3, 10; 4, 14; 5, 5; 6, 20—Total, 72.

Time, one hour and a quarter.

COMPOSITION.

1. Write short descriptions of the following tradesmen and their occupations: (a) a carpenter; (b) a tailor.

2. Write short descriptions of: a township show; a circus; a church tea-meeting.

3. Where do you make use of capital letters? By what names are these marks known: ; ; : ; ? " " .

4. Combine into one sentence: He was a steady man. He was a sober man. He drove the fast train. He arrived on time. The snow was deep. The track in places was dangerous.

5. Correct where necessary:

well jack the anxous parrent crys.
how did you manidge jack replys.
i thocht each day it's wants wood hav
and appetite again wood crav.

Time, one-half hour. Values—1, 14; 2, 20; 3, 12; 4, 10; 5, 16—total 72.

GRAMMAR.

1. Define a Relative Pronoun and a Transitive Verb. [4.]

2. Compare *little*, *bad*, *ill*, *friendly*, *rough* and *much*. [6.]

3. What is a simple sentence? [3.]

4. What is the subject of a sentence? Give examples. [4.]

5. Name the ways in which gender is distinguished. [6.]

6. Define a Proper, Common, and Abstract Noun. Give examples. [6.]

7. Enlarge the subject in the following sentence in all the ways you can,—“Boys play.” [4.]

8. Give three instances of a Transitive Verb, and three of an Intransitive Verb. [4.]

9. Correct the following sentences, and state, if you can, the rule in each case.—

(a) Let you and I go for a painful of water;

(b) The boys was playing;

(c) They ran away and hid themselves;

(d) I have seen him last week. [9.]

10. Analyze and parse: (a) They received their new guests as a vastly superior order of beings. [6.] (b) Remote from towns, he ran his godly race. [20.]

CANADIAN HISTORY.

1. What is a Treaty? In what year and by what Treaty was Canada formally ceded to the British? [8.]

2. Give the date and provisions of the Quebec Act. [12.]

3. What gave rise to the United Empire Loyalists? Explain fully. [10.]

4. In the Revolutionary War was Canada involved? Explain fully; give name, provisions, and date of Treaty closing the war. [12.]

5. What do you mean by the Constitutional Act, and what brought it about? [10.]

6. From what is the word Parliament derived? Define Motion, Bill, Act of Parliament, Adjourn, Prorogue and Dissolve. [12.]

7. What led to the war of 1812? Give any important engagement.

Time, one hour and a quarter.

ENTRANCE TO FIFTH CLASS.

SPELLING—TIME, THIRTY MINUTES.

To be read slowly and distinctly, and the greatest care taken that each pupil understands every word. Each sentence to be first read in full, the pupils simply paying attention, then again slowly, the pupils writing.

1. A dull sound of the heavy beast striking

against the unyielding trunks of the fallen trees.

2. A sturdy Virginian reaches down and draws up the lad before the tearful, breathless multitude.

3. Another circumstance, which occurred about this period, afforded him inexpressible delight.

4. Now lulls in dying cadences.

5. The annals of the American war record the following story.

6. The scene is altered from the interesting and beautiful, to the majestic and terrific.

7. A peerless moon rode through an occasional cloud.

8. These unwieldy craft are brought to Quebec in great numbers.

9. An uninterrupted communication being thus made practicable across the St. Lawrence.

10. Before he died, he paid the victorious army this magnanimous compliment.

11. She seemed to have lost the power of speech, as she sat, gazing in unutterable despair on the mangled form of her husband.

12. Launched, incautiously, fractured, precipice, contemptuous, disease, apathy, hospital, architecture, physician, unmanageable, manœuvre.

Value, 100—5 marks to be deducted for each mistake.

This paper is not to be seen by any candidate.

ARITHMETIC.

1. Find the total cost of : 2,360lbs. of hay @ \$10 per ton ; 2,352lbs. of flour @ \$5 per barrel ; 4,700lbs. of pork @ \$24 per barrel ; 1,200lbs. of pease @ 70cts. per bushel. [10]

2. Write down Square Measure, Dry Measure, and Troy Weight. Reduce 238,760 inches to miles, furlongs, etc. [10.]

3. A boy gave $\frac{1}{2}$ of his apples to his sister, $\frac{1}{3}$ of what was left to his mother, and had 84 apples left. How many had he at first, and what were they worth at the rate of 3 for 5 cents? [10.]

4. Bought a lot 25 rods long and 20 rods wide for \$1,000. Sold the same at 25 cents per square foot ; find gain. [10.]

5. Three boys, Tom, Dick, and Harry are

respectively aged 9, 11, and 12. Divide 416 nuts among them according to age. [10]

6. Simplify $\frac{1+2}{5\frac{1}{2}-1\frac{1}{2}} + \frac{11\frac{1}{2} \times 8\frac{1}{2}}{3\frac{1}{2} \times \frac{1}{2}}$ [10.]

7 Two-thirds of *A's* money is equal to three-fourths of *B's*, and four-fifths of *B's* is equal to five-sixths of *C's*. Altogether they have \$1,234; how much money has each? [10.]

8. Multiply .3456 by .1234, and divide the result by 1.92. (N.B.—Must not reduce to Vulgar Fractions.) [10.]

9. What must a farmer ask for a horse which cost him \$120, so that after throwing off 20% of the price asked, he may still make 25% of what it cost him? [10.]

10. How many bricks 9 inches long, 4 $\frac{1}{2}$ inches wide, and 4 inches thick, will be required for a wall 60 feet long, 17 feet high, and 4 feet thick, allowing that the mortar increases the bulk of each brick one-sixteenth? [10.]

11. Define the following:—Factor, Prime Number, Measure, Least Common Multiple. Resolve 87780 and 12350 into prime factors, and from them determine the Greatest Common Measure, and the least Common Multiple of the numbers. [10.]

12. How much will \$215.75 amount to at 8 per cent. per annum, for three years and a-half, simple interest? [10.]

GEOGRAPHY.

1. Define Pole, Horizon, Meridian, Zone, Channel, Earthquake, Plateau, Delta, Colony and Tide.

2. Give the Seaports of the Dominion of Canada and Mexico, specifying the principal articles of export from each.

3. Where is Guinea, and what are its divisions? Name its capitals.

4. Where are Mounts Etna, Vesuvius, and Hecla? For what are these mountains noted?

5. Where are the following cities situated, and for what are they severally remarkable: Genoa, Amsterdam, Marseilles, Orleans, Liverpool, Cork, Odessa, Naples, Glasgow, and Oporto.

6. Draw a map of Nova Scotia, and locate

its principal towns, rivers, lakes, capes, and bays.

7. Name and bound the Republics of North America.

8. What and where are: Wight, Jordan, Indus, Suez, Cairo, Gibraltar, Ceylon, Fraser, Grand and Bowmanville.

Values—1, 10; 2, 10; 3, 7; 4, 7; 5, 10; 6, 12; 7, 6; 8, 10—total, 72.

Time, one hour and a-quarter. See time table.

COMPOSITION.

1. Write a composition on Christmas day, telling when it is, why it is kept, where you went last Christmas day, who were with you, what you did, and what your opinion is of the value of Christmas day.

2. Correct where necessary the following: John Steggins and co'y., fergus, respectfully informs the publick that they have had 100 crate of crocery, 50 chest of teas and an imense stöck of dry goods added to his stock from steemship sarmation on wednesday february 22nd which i am determined not to be undersold by any in the trade.

N. B. i am abel to do this by purchasing for cash only.

3. Write a composition of not less than 25 lines on any of the following subjects: The Cow; Railway; Kindness; Truth.

Time one-half hour. Values—1, 10; 2, 5; 3, 15—total, 30.

GRAMMAR.

1. Analyze: He had exhausted all the resources of his skill; but he still wanted one of those effective dishes, capable of producing a great sensation, which rear on a solid basis the reputation of the cook of a great house. [12.]

2. Parse: The ships sailing across the ocean, looked like great ocean birds. [22.]

3. Give the plural of *potato*, *brother*, *datum*, *phenomenon*, *beam*, and *cherub*. [6.]

4. Correct where necessary, giving clear reasons in each case: (a) Thou should love thy neighbour as thou loves thyself; (b) None of my hands are empty; (c) Many have profited from good advice; (d) The number of our days are with thee; (e) Either the

boy or the girl were present; (f) Which is the heaviest? Her's or Yours? [12.]

5. Write a sentence containing: (a) A noun clause; (b) An infinitive or an infinitive phrase in the subject; (c) A sentence containing a Relative Pronoun; (a) A verb in the passive voice. [8.]

6. Give the principal parts of *snow*, *spit*, *rive*, *mow*, *tread*, *weave*. [12.]

Time, one hour and a quarter.

ENGLISH HISTORY.

1. Name the kings of the Norman period. Give dates when you can and tell the leading features of the period. [10.]

2. Was London always the Capital of England, if not, what was? What were the Crusades, and what King of England became famous in one of them? In whose reign was the title of Prince of Wales given to the eldest son of the King of England? [10.]

3. How came Henry the 4th of the House of Lancaster to be King of England? Explain fully. [10.]

4. What do you mean by the Wars of the Roses? The King Maker; who was he? At what period were many of the Nobility of England utterly destroyed and Feudalism become extinct? Who was the last of the Plantagenets, and by whom was he succeeded? [10.]

5. What events of the reign of Henry VIII. can you relate, giving dates where you can? In whose reign was Mary Queen of Scots beheaded, The Spanish Armada repulsed, The Church of England reformed, and what great men lived during the same? [10.]

6. When were the Crowns of England and Scotland first worn by one Monarch? What was the cause of the Civil War in the time of Charles the First and how did it end? Who was Oliver Cromwell, and what was the extent of his authority in England at the close of his life? Give the character of Charles II. and James II., and the reason why Prince William of Orange, his son-in-law, succeeded the latter. What famous General lived in the reign of Queen Anne, and in what battles did he defeat the French? [12.]

7. Tell what you know of the South Sea

Company, of the battles of Culloden, Plassey, and the Plains of Abraham, William Pitt, George Washington, Napoleon, The Duke of Wellington, and Prince Albert. [12.]

Time, one hour and a quarter.

HOW TO TEACH LITERATURE.

IN compliance with numerous requests for "suggestions" in regard to methods of conducting recitations, I submit the following—with reluctance, for I cannot but think that each teacher must prefer his own ways of teaching, and with pleasure, for it recalls the faces of my pupils, and the class-rooms in which these methods had their origin.

1. In order to exercise or cultivate the taste of beginners, it is well to read aloud some rare, short poem, and at its close, or during the reading, if the pupils cannot retain the line in memory until the reading is ended, let them name the line that especially pleases them. I used frequently to take Tennyson's little poem, *The Poet's Song*, trying not to show my own impressions as I read. But I never could get beyond the line,

"And waves of shadow went over the wheat,"

without a thrill of pleasure communicating itself to the whole class. Then, as I would proceed, hands would be raised at each effective line, descriptive of the power of the song on the "wild swan," "the lark," "the swallow," "the snake." And then, perhaps, would come my disappointment if they failed to notice the strongest lines of all,

"The wild hawk stood with the down on his beak,
And stared, with his foot on the prey."

The few words present, at once, a striking image. The hawk, arrested in his savage meal, not with appetite satiated, but whetted with the first taste of blood, is lured to listen, and with head erect stands "with the down on his beak," and stares, "with his foot on the prey."

Nor will the idea in the last lines escape the attention of the more thoughtful pupils,

who see in the poet the hopeful prophet of the future.

THE POET'S SONG.

The rain had fallen, the Poet arose,
He pass'd by the town, and out of the street,
A light wind blew from the gates of the sun,
And waves of shadow went over the wheat,
And he sat him down in a lonely place,
And chanted a melody loud and sweet,
That made the wild-swan pause in her cloud,
And the lark drop down at his feet.

The swallow stopt as he hunted the bee,
The snake slipt under a spray,
The wild-hawk stood with the down on his beak,
And stared, with his foot on the prey;
And the nightingale thought "I have sung many songs,
But never a one so gay.
For he sings of what the world will be
When the years have died away."

2. As soon as a writer's place is fixed in the mind, and the writer has received individuality, let the pupil turn at once, as the main study, to the author's works. Illustrations of the literature of each period are given at the close of every chapter, but it being impossible to give more than brief specimens of each, let selections from these writers be brought from every source, best of all from a writer's own works. For instance, the lesson may be Longfellow, or Whittier, or Tennyson. Let each pupil select the poem of his choice, and having studied it well, let the reading of it, and comments upon it, be his contribution to the lesson, in addition to the assigned lesson from the text.

3. The recitation may consist wholly of the study of one piece. This, even for beginners, may be made exceedingly profitable and interesting. Take, for instance, Whittier's *Barefoot Boy*. See that each line produces a picture in the pupil's mind. Nothing should go unexplained that is not well understood. Every allusion that requires research is a help, and the more trouble the pupil has in finding the meaning, the more surely will he remember it. In this poem the interest centres in the sports of

boyhood, but is replete with poetic sentiments and happy phrases. No line should escape attention, whether simple, as the rare description of the "blackberry-cone," or gorgeous, as the picture given of the "regal tent" of sunset.

"Purple curtained, fringed with gold,
Looped in many a wind-swing fold."

Let the pupil feel the beauty of such lines. Gray's *Elegy* and Buchanan Read's *Closing Scene* contrasted, Wordsworth's *Ode on Immortality*, and Lowell's *Vision of Sir Launfal*, and, for more advanced students, Dryden's and Pope's *Odes on St. Cecilia*,—all furnish admirable studies. In these exercises the careful use of words should be observed, for words themselves when analyzed reveal whole poems. Such a course will evidently lead up to a still higher and more analytical course, taking for subjects Milton's longer poems, Shakespeare's Plays, plays of the other dramatists, Spenser's *Faerie Queen*, Chaucer's *Canterbury Tales*, prose works of the great masters, as Bacon, Hooker, Jeremy Taylor, Bunyan, Addison, Burke, etc. But such studies require libraries, and, until the pupil can have access at pleasure to all the great writers, it is better that he should become familiar with them by first having a slight knowledge of each. This will materially aid his after-studies of some one or two great writers, if such a course is then deemed best.

4. Group minor facts around the central subject of interest. Teach pupils to discriminate between that which is of real importance and that which is but secondary, and do not dwell too long on minute details. Teach, rather, that

"Not to know some trifles is a praise."

5. Do not insist on the pupils remembering dates. After those of Chaucer, Shakespeare, and Milton, I should insist on but few others. Dates will of themselves, if not forced upon the memory, cling to it by association, and it shows more intelligence to know *about* what time a minor poet lived than to know the exact date of his birth and death. The thoughtful student will note

coincidences. He will remember, because he cannot help it, that Chaucer died in 1400, Dryden in 1700, Cowper in 1800, Wordsworth in 1850. By association he will remember that Sir Walter Scott, and the great German poet, Goethe, died in the same year, 1832; that Macaulay, Irving, Prescott, Hallam, Leigh Hunt, De Quincey, all died in 1859. But should he fail to notice this, knowing that Wordsworth lived during the first half of this century, and that the above writers together with Coleridge, Lamb, Hood, etc., were his contemporaries, it is not necessary that the exact dates of each should be studied.

6. One method of conducting an exercise which interests pupils exceedingly, and makes an exhaustive study of the period, is to place upon the black-board a variety of subjects belonging to the period, and let each pupil select from the list the subject upon which he will discourse for the next lesson, either telling orally all that he has learned upon the subject, or writing out as interesting an account as possible. Sometimes, not often, a well delivered oral recitation will be quite as beneficial as a written one,—the main end being to give, in a good style of language, all that has been learned upon the subject. For such an exercise, suppose the lesson to be the Period of the Revival of Learning, 1400—1500. The teacher would place upon the board under the heading such subjects as the following:

1400—1500.

REVIVAL OF LEARNING.

Sir Thomas More,	The Invention of
The Discovery of	Printing,
America,	Caxton,
Henry VIII.,	Translation of the
Lorenzo de Medici,	Bible,
James I., of Scotland,	Ballad Poetry,
Surrey and Wyatt,	Minstrelsy,
Stories of Arthur,	The Byzantine Em-
	pire,
	Erasmus.

Each pupil before leaving the class must select his subject, so that there may be no confusion. If two or three should choose the same, it would only tax them to greater

efforts to excel. But the ground of the lesson should be entirely covered, and each theme should be presented in an attractive light by the teacher. If the pupils have done their part well, the next lesson will be a treat to all. The pupils will not have relied alone upon the text-book before them, but will recall all that they have ever read or heard upon the subject, and will consult every available source of information. Each of the above subjects may call out original thought on the part of the pupil, and the facts as he relates them must always be given in his own language. All terror of writing disappears before a subject upon which a pupil has something to say.

7. An exercise which most teachers have tried is that of paraphrasing. The exquisite description of winter in the *Vision of Sir Launfal* affords an attractive theme; so also Drake's *Culprit Fay*, a description from Goldsmith, or from any author whose words convey an exact image of that which is described.

8. After pupils have gained a respectable knowledge of several authors, it is a good exercise to let them bring in brief extracts from these authors—a striking sentence in prose, or a line or stanza of poetry—characteristic of the author, if possible—and recite them in class, letting the class recognize the author, either from memory of the lines quoted or from a knowledge of the general style of the writer. They should also know from what work the lines are extracted, and all that is possible to know about them.

9. An interesting review may be conducted by having the pupils themselves ask the questions. Give for instance, a certain period to be reviewed, and request each pupil to come prepared with, say ten questions upon that period—prepared, also, to answer them. The asking of a question frequently indicates the state of knowledge better than the answering.—*Trimble's Short Course in Literature*.

CONTEMPORARY LITERATURE.

AIDS TO WRITING LATIN PROSE, WITH EXERCISES, by G. G. Bradley, D.D., Dean of Westminster. Edited and arranged by I. L. Papillon, M.A. Rivington's, London, 1884.

IN THE MONTHLY for November, 1883, we reviewed at some length a number of works on Latin prose, published by the well-known house of Messrs. Rivington, London, and drew pointed attention to the superlative merits as an elementary class-book of Mr. Bradley's "Arnold," an essentially new work under an old name. We are glad to find that the high praise we then bestowed upon that book has been amply justified by the test of the school-room, and that to-day it is the book *par excellence* for Latin prose in our High Schools. We are happy to introduce to the notice of teachers a continuation of the same work from the hand of Papillon, that first-rate scholar and able writer of school and college text-books. This book, we learn from the preface, is a selection from

materials prepared by the Dean of Westminster while master of University College, Oxford, for a treatise upon Latin prose composition, and which he placed in the hands of the present editor with full discretion as to their selection and arrangement. The publication of the revised edition of *Arnold's Latin Prose Composition*, has rendered unnecessary any further exposition of the constructions of Latin syntax, and the editor is left free to build upon the foundation laid in the introductory work. The book is then of special use to undergraduates at the Universities and boys in the upper forms of the High Schools and Collegiate Institutes.

There are 174 pages of textual matter and 138 pages of exercises, followed by a grammatical index, an index of words and phrases, and an index to exercises. Without going further into detail, we may sum up by stating that in our opinion it is the most useful and interesting work on Latin prose acces-

sible to the English student. The people that can see no good in Latin prose would do well to read the introductory essay on the value of the study of Latin composition. We hope to be able to reproduce it, both for their confusion and for the support of those that still believe in "the humanities."

LECTURES ON THE SCIENCE AND ART OF EDUCATION, WITH OTHER LECTURES, by Joseph Payne. New York: E. L. Kellogg & Co., 1884. pp. 256, 16mo, cloth, \$1.00; paper, 50 cents.

The publishers have laid the teaching profession in America under obligations by re-publishing this notable book. As is probably known to our readers interested in the science of education, Mr. Payne was the first Professor of the Science and Art of Education in the College of Preceptors, London, England. He laboured there with much acceptance to the college, and amply justified the expectations of those that had been instrumental in establishing the chair of pedagogy. He not only found the key to the success of Froebel, Pestalozzi and Jacotot, but was able to add much original material to the science of education. No teacher who aims to be progressive should fail to obtain this book and master its contents. The key-note of the book is this: It is what the child does for and by himself that educates him. The mechanical part of the book is also excellent.

CUMULATIVE METHOD FOR LEARNING GERMAN, adapted to Schools or Home Instruction, by Adolphe Dreyspring. Second Edition. New York: D. Appleton & Co.

Methods of linguistic instruction are commonly distinguished as being *analytical* or *synthetical*. This distinction is not quite correct, inasmuch as no system can be either wholly the one or the other; the methods are only rightly so named as indicating that the one or the other principle prevails. We do not intend to discuss these distinctions further than to state that languages are and have been taught in our schools mainly by the analytic method. Herr Dreyspring's idea

seems to be this: The boy who has analysed the grammatical forms and syntax of "wessen Tisch ist das?" who can repeat these words, whenever he wishes to express the thought contained therein, and who so understands the grammatical principles involved as to express a similar thought with other words, *knows* German (in so far as he has learned the language) as perfectly as Goethe or Schiller. Anything short of this the author believes is not to *know*: it is only to *know about*. As a matter of fact the stage of progress most commonly attained is to be able to translate such a passage into English at sight, and probably to parse correctly the individual words. Very few can repeat the words in case of need, and marvellously few can express another thought similarly with other words. Such a knowledge is not permanent, is of little use as mental discipline, gives no pleasure to the possessor, and finally disappears with astonishing celerity.

To compass the whole German language, as indicated in the example given above, in analysis, syntax, pronunciation, and original effort on the part of the pupil, has been the object of the author of the "Cumulative Method." He has analysed the vocabulary of the story of "Schönkind," taken its 350 nouns, 125 adjectives, and 200 verbs with minor words, and with these as a basis has built up the whole German Grammar in concrete form.

We recommend the work to teachers of languages. If not prepared to adopt such a system in its entirety, they would assuredly derive benefit from familiarity with its principles, which may with equal advantage be applied to the teaching of any language.

EXERCISES IN TRANSLATION AT SIGHT: A selection of passages from Greek and Latin authors, arranged by A. W. Spratt, M. A. and A. Pretor M. A., Fellows of St. Catharines College, Cambridge. Vol. I., Original Passages, pp. 209. Rivingtons: London, 1884.

This book although intended to supply the needs of higher classes in British Schools with a selection of passages from the best classical authors for sight translation, is yet

in parts not beyond the capabilities of the most advanced students in our own High Schools and Collegiate Institutes. The Selections are marked "easy," "moderately easy" and "difficult" and afford ample practice even for undergraduates. It is an excellent compilation, and will meet the requirements of classical teachers who must often have felt the need of such a book.

THE NORMAL MUSIC COURSE: by J. W. Tufts and H. E. Holt, adapted for use in the Canadian schools by S. H. Preston. First and Second Readers: Canada Publishing Co., Toronto.

THESE books which we briefly noticed last month, are found upon further enquiry to possess unusual merits and some novelties in music. The system is graded and eminently practical. The special features, however, are that they present the relative pitch of sounds to the ear as mental objects which are as distinctly named and known as numbers are to the eye. By this system the hindrance of beating time is avoided. The pupils are taught to think and feel time not beat it. The books have already received the warm approval of the highest musical authorities in the United States, and will no doubt be largely used in this country.

THE COMMONLY-OCCURRING WILD PLANTS OF CANADA, and more especially of the Province of Ontario. A Flora for the use of beginners: by H. B. Spotton, M.A., F.L.S. W. J. Gage & Co.: Toronto and Winnipeg. [1884.]

WE are glad to see such an attempt as the present made to supply the young Canadian botanist with an inexpensive handbook of the wild plants of his country. There is no science better adapted for pleasantly training the student in habits of observation, and in a love of the beautiful in nature than botany, and it has, we believe, as few drawbacks as can be found in the whole field of scientific study. In the search for plants we find health and instruction as well as specimens, and we have the further satisfaction of believing that our health and our instruction are not gained at the expense of a single

page to the objects of our search. With out particularizing the features of merit that must occur to every intelligent reader it will be sufficient to state, that Mr. Spotton's labours are characterized by simplicity and accuracy of treatment. He has evidently spent a great deal of labour on the whole book, but, especially upon the key. His efforts amid heavy professional duties to produce a trustworthy handbook, are creditable to himself, and bring honour to the whole profession, and should do much to foster the study of botany in our schools. That Mr. Spotton's little book will help on this study, there can be hardly any doubt. A subsequent edition might, however, we think, with advantage widen the scope so as to make it include not only the commonly-occurring, but also the rarer species, for even beginners often find rare specimens. We hope that Mr. Spotton's labours will receive the acknowledgment which they deserve.

A MANUAL OF GREEK VERBS with rules for the formation of tenses, and tables of verbs for practice: by F. Ritchie, M.A., and E. H. Moore, M.A. Rivingtons. London.

THE authors have made a successful attempt to arrange in a clear and consecutive order the laws which govern the inflexion of the Greek verb, to supply copious examples of their application, and to collect and group the chief instances of irregularity.

HISTORY TOPICS for the use of High Schools and Colleges: by William Francis Allen, A.M. Boston: Ginn, Heath & Co., 1883 [pp. 121, mailing price 25 cents.]

THE chief features of merit in this primer are the evidences of intelligent purpose, practical skill in teaching, a thorough grasp of the philosophy of history and a well defined plan. The ground covered is perhaps not exactly suited to the immediate wants of the student in Canadian schools, but even without the aid of the promised English History course, there is sufficient to render the book quite valuable to candidates for matriculation. The sixty pages of the bibliography of history, is at once the most scholarly and useful compendium that has yet appeared

in English. To the young student or teacher doing some original reading or making additions to a library it is simply invaluable.

CANADA UNDER THE ADMINISTRATION OF LORD LORNE, by J. E. Collins, author of "The Life and Times of Sir John A. Macdonald, K. C. B., etc." 1 vol. 8vo. Toronto: Rose Publishing Co.

MR. COLLINS'S new book is characterized alike by great strength and great weakness. His work, in the present instance, is unequal, and what is sure to be prejudicial to him, he seems at times to write under the influence of what we may euphemistically call too exuberant animal spirits. His style has colour, has blood in it; but he appears not to be able always to surmount his own preferences and prejudices: for at times he allows his likings to carry him to the point of excessive laudation, and at others to stud his book with unrestrained, and sometimes acrid, comment. A license of criticism, lacking in judiciousness and prolific of biting power, generally defeats its own ends and destroys faith in the judgment of him who so writes. To this cause, we apprehend, is due either the silence of the press or the want of heartiness in noticing a work which, in many respects, is eminently worthy of notice, and has in it much of admirable writing, of usually sound criticism, and of laborious, painstaking compilation. Party predilections, unhappily, are too apt to colour the notices of the press in reviewing works of a political character; and, in the case even of our metropolitan journals, it has happened that criticism has been influenced by personal animosity. This is to be reprehended, for it is an injustice to literature in general and a cruel wrong to native letters. Canadian literature stands in need, not of the slogging of an irate reviewer, but of the calm, dignified, and helpful aid of a discriminating but kindly criticism.

Mr. Collins's new book has this further disadvantage, that it deals with contemporary events; and it is confessedly difficult to see these in their proper perspective, and hard to write about them without provoking comment. Particularly is this the case when you have an author who has his own way of

looking at things, and has the courage to say what he thinks. It is this, however, that gives to the present volume its spice and interest, and, while dealing with things that as yet cannot have passed from the public memory, places them in a specially new and fresh light.

The volume is divided into chapters; the first dealing with the arrival in Canada of Lord Lorne and the Princess Louise, a section of the work which has some spirited writing; and the second, with the Letellier affair, which, though it had broken out under the administration of the previous Governor-General, came to be officially dealt with by Lord Lorne. Chapters three to seven discuss the political and social events of the years 1880-'83, in which occur some capital bits of portraiture and clever political writing; chapter eight with their Excellencies' private and social record; chapter nine with literature and the Royal Society; and chapter ten with Canadian sports, scenery and pictures. In these several chapters the reader will get an intelligent, a forceful, and generally adequate idea of the trend of Canadian events, at a period of no little national interest; while he will have gathered up for future reference much material illustrative of present-day annals which he will be glad to find at hand when the occasion calls for historic research. With the reservation already made, Canadian history has, in the present volume, had some important chapters added to it which those who keep themselves *au courant* with native thought will not omit to read and find pleasure and profit in reading. In the chapter on Canadian sports and scenery, Mr. Collins, in our opinion, appears at his best, for whatever be his political sagacity his sympathy with nature is undoubted, and his descriptions of her varying moods and charms are delightful. In the appendix much interesting reading will be found in Lord Lorne's addresses on art, education, and kindred topics, which add greatly to the value of the book, and leave on the reader's mind a favourable impression of His Excellency's administration.

G. M. A.

EDITORIAL NOTES.

THE scholar who loves an occasional bit of examination humor will be delighted with the specimens given in the Classic department.

THE appointment of Mr. J. J. Tilley, late Public School Inspector for the County of Durham to the Inspectorship of the Provincial Model Schools is a recognition on the part of the Minister of Education of Mr. Tilley's professional ability and zeal. Mr. Tilley has many qualifications for the important position to which he has been appointed, and with the experience that his many years of county service have given him, he will have no difficulty in serving the Province with discretion and success.

IN the June *Century* magazine there is a thoughtful and scholarly contribution on "What is a liberal education?" by President Eliot, of Harvard University. The paper is, we understand, the first of a series which is to appear in that magazine on educational topics. President Eliot's position, if we rightly understand him, seems to be that languages, mathematics and science, should be placed on the same level. Thoroughness should be sought for in one of these branches, and on account of the impossibility of mastering more than one of these great departments, options should enter earlier into educational training. Although agreeing in many things with the learned President, we must differ from him on the point of options being introduced into the secondary schools. We do this principally for the reason that a scientist should be sufficiently versed in languages to express himself intelligibly, and in mathematics to be exact and accurate, and this requires no little careful training. President Eliot's contention for better and more thorough instruction is very reasonable, but he seems to have looked to the wrong end of

the educational programme to find the place for change. Instruction in too many subjects should not be attempted in any training institution, and least of all in the secondary schools. Multiple options have been found to be very unsatisfactory in the schools of Ontario. It must only be in a graduate or post-graduate course of study, we think that the opportunity for further and deeper research can safely be found. We shall, however, at an early day try to find a place for the paper in our columns.

THE friends of higher education for women have this year much reason for encouragement in the very marked success that has attended the efforts of ladies at the various university examinations. At Queen's University, Miss Fitzgerald, and Mrs. McGillivray have won the highest distinction, the former bearing off from all her competitors the Gold Medal in Classics, and the latter the Chemistry Gold Medal. At Victoria University, Miss Greenwood after a remarkable career in science has been graced with the degree of B.Sc. Mrs. Haanel, wife of Professor Haanel, of Victoria College, was granted the same degree *ad eundem*. At the Provincial University, there are eighty-two ladies under-graduates, amongst whom Miss Balmer, from St. Catharines Collegiate Institute bears the palm a second time, winning a double scholarship, the Modern Language of the second year and a General Proficiency, a phenomenal distinction in these days of numerous candidates and keen competition. Miss Henderson of Oshawa, not unknown to readers of THE MONTHLY, has added to her former distinctions by winning this year the blue ribbon amongst under-graduates, the university prize for English Verse.

All these evidences of ability and scholarship are most gratifying to the friends of

female education, and must be no less welcome to women themselves. They show among many things which we need not here specify, that women of talents are no longer content with the cheap and tawdry distinctions, which in too many quarters were supposed to lend grace to their acquirements. The establishment in this Province of the Local Examinations for Women was the first step towards securing the impress of authority for non professional female scholarship. The admission of women to the class lists of the universities in a full undergraduate course has finally demonstrated the ability and willingness of women to compete in the same curriculum with men, and has amply justified the correctness of the opinion that the state should provide in proper form the amplest facilities for giving to women all the scholastic training which now is open only to men.

THE ELECTION OF A HIGH SCHOOL MASTERS' REPRESENTATIVE.

THE contest for the position of second Representative of the High School Masters on the Senate of Toronto University, resulted in favour of Mr. Miller, Principal of St. Thomas Collegiate Institute. For some time the issue of the contest was in doubt owing to the fact that a number of voting papers containing the names of junior masters were found to be unsigned. The University Solicitor, proceeding upon the assumption that the person that filled in the voting paper was the party who should have signed it, and following precedent, it is said, held that such votes were good. Mr. Miller was therefore declared elected, though Mr. Connor of Berlin High School had the larger number of votes duly signed. Without wishing to cast any doubt upon the validity of Mr. Miller's election, we would suggest to all concerned the propriety of leaving no possible ground for doubt as to the choice of the electorate. And here we may remark that the growing practice of flooding constituencies with voting papers filled in with the names of candidates, is, to say the least, an offensive and very questionable pro-

ceeding. We do not imagine that the candidates themselves resort to such practices, and we do not doubt that they will heartily agree with us that the intemperate zeal of canvassers should be restrained.

THE SCHOOL READERS.

The question of the new series of School Readers for the Province of Ontario is still the most interesting topic in educational circles. Since our last reference to this burning question, some progress has been made, we hope, to a settlement of it by the appointment on the part of the Minister of Education, of a Committee of two, Mr. Principal Bryant and Mr. Inspector Little to prepare a new series. These gentlemen have been actively at work for some time, and it is stated that the new series will be ready for the schools early in the autumn. It may, perhaps, be doubted if, after all, this is the way to secure the best results. It can hardly be expected that two gentlemen however competent, can in two or three months surpass the efforts of publishers who are known to have spent long time, well directed labour, and much money in endeavouring to produce a satisfactory series. While saying this, and not anticipating too much, we are free to admit that the Minister's solution of the difficulty has much to recommend it on the ground of expediency. Meantime, we shall wait patiently for results, and hope to find that he has been able to harmonize the conflicting interests of rival publishers, and at the same time give an impulse to the growth of national literature and native enterprise.

ADVENTITIOUS AIDS TO THE SUCCESS OF TEACHERS' ASSOCIATIONS.

Several of the Teachers' Association, we notice, have endeavoured to invest the proceedings of their conventions with new interest by securing the attendance of teachers of eminence from the neighbouring Republic, or men of note from metropolitan centres. This method of galvanizing languid associa-

tions into life and activity is most helpful. Nothing can be better for the young teacher than to be brought into contact with men and women eminent in the profession, or with laymen who, from their experience and position, are able wisely to discuss general questions relating to education. It is to be regretted, however, that the officers of Teachers' Associations too often find it necessary to resort to artificial methods to fire the languid pulse even of teachers themselves with the fine joy of professional zeal. Too often the young teacher is found unwilling to prepare a paper for the Association, sheltering himself behind a dozen worthless excuses, and through lack of interest in the programme or the want of previous thought upon the subjects, unable and reluctant to take part in the discussions. While then, it is wise, often to import into the association the best foreign talent available, it is much more wise to stimulate the activities of members of the association, and to cultivate the talents and gather the fruit of that experience which is the best outfit of every teacher worth the name. Every teacher at a convention has something of interest to communicate to his professional brethren, and it should be the aim of the Association to bring that forth for the common benefit.

ART EDUCATION AGAIN.

As may be seen from our advertising columns, the Minister of Education has made a new departure in the matter of Industrial Art in this Province. He has decided to establish classes during the holidays for the free tuition of such teachers as desire to avail themselves of the facilities afforded by the Department, for obtaining practical acquaintance with this portion of the school programme. The response made by the teaching profession to the boon thus offered to them, has been so hearty, that it is feared there will not be sufficient accommodation for all who have signified to the Department their wish to attend. At last, then, there is some hope that in time there will be a supply of competent teachers of drawing, and that

the education given in our Public Schools will in certain directions go some length in assisting those who from choice or necessity may find it profitable to be skilled in Industrial Art. It is not, we need scarcely say, proposed to introduce technical education into the schools. All that is aimed at is to lay such a foundation that the future artisan shall have mastered as a school boy the principles upon which formative skill depends.

It may be gathered from what has already appeared in our columns, that it has been found necessary to differentiate between the aims of Art pure and simple as fostered by the Ontario Society of Artists in its school and Industrial Art, as directed and controlled by the Departmental officers.

If we correctly understand the situation, the Department will, in its Art School, direct its energies to the practical and useful side of Art; the Artists' School will be left to pursue the teaching of Decorative and Aesthetic Art. If these essentially different aims be kept in view there need be no clashing between the different schools. There is, we are glad to believe, room for both, and we trust the government will see its way by liberal expenditure to foster and develop both schools, and afford facilities to all who have the desire and the talents to take advantage of them. It will not, we hope, be found necessary to subordinate altogether the instinct for beauty to the instinct for wealth.

THE NEW UNIVERSITY CURRICULUM IN ITS RELATION TO THE HIGH SCHOOLS.

THE Board of Arts Studies Toronto University has been for some time diligently engaged in revising the Arts Curriculum, and the result of their labour has been submitted for approval to the Senate. We shall probably take occasion to speak of the Curriculum on a whole when it is in final shape, but in the meantime shall direct some attention to those parts that more immediately concern the High Schools, the work for Junior and Senior Matriculation.

It may fairly be questioned if the dual system of matriculation has been on the whole successful. There can be no question that the High Schools do not regard the senior test as worth much consideration. A few schools regularly send up candidates, but it cannot be said that these candidates represent the best work of which the schools are capable. While no doubt there are individual instances of senior matriculants standing well in the class lists throughout yet it is indisputable that the highest places are generally filled by candidates who began their university course at the junior examination. And we have good reason to think that many of those who began their university course with the senior matriculation if they had, in the light of experience, an opportunity to begin again would go with the majority.

We have no sympathy with those that hold that the University course should be shortened to three years, and that the work of the first year should be thrown upon the High Schools. No good argument in support of this scheme can be adduced from the anxiety of two or three of the larger schools to undertake this work. The question is not to be decided by the ambitions and resources of one or two well equipped schools. Of late years there has been quite too much ambition in this direction and it needs no elaborate demonstration to prove that increasing one's stature by walking on tip-toe is both a toilsome and ludicrous performance. Sooner or later the normal gait must be resumed; and it is well if it is discovered that vanity has not produced permanent deformity. We are abundantly satisfied that what is required to improve the scholarship of our High Schools is not so much more work as better work. No one who has had an opportunity of reading the answer papers of candidates at the University Examinations can come to any other conclusion than that much of the work in High Schools is hurried and superficial. The masters are not to blame for this. The pupils are unwilling from the well-known facility of ingress to take time for thorough

preparation, and most of them are ambitious only to make a pass. Hence the rush and the leanness.

There are also, if it be not rank heresy to say it, too much poor material in training for the Universities. The number too of young people at the various Universities is wholly out of proportion to the needs of the Province. There are too many of the most mediocre talents upon whom it is folly to spend public money and who will never lend grace to any profession. The Universities should be nurseries of talent and of sound scholarship, but as matters now are, they are swarming with multitudes that have literally been pitchforked into College by the efforts of the High School Masters.

The remedy for this unwholesome state of things is for the authorities to raise the standard at the examinations, to insist that a candidate shall know his work thoroughly as far as he goes and that too many things should not be attempted. Can there be anything more foolish than in the few short years that our boys and girls are to spend in going to school that they should be crammed with this and that and that and have a smattering of this and that, and yet grow up incapable of expressing themselves with force and elegance in their mother tongue nor be able even to keep the minutes of a School Board with accuracy and neatness.

We trust the masters who, we are glad to find, thanks to the efforts of their senior Representative, are to be consulted upon the propriety of the changes proposed in the new curriculum, will see their way to recommending a fixed uniform course for the schools with but few options and cast the whole weight of their increasing influence in favour of depth and not superficiality in secondary training. The existence of the High Schools, we beg leave to remind them is not justified by the number sent to the Universities, but by the thoroughness of the education given to all the pupils. And we trust also that the Senate of the University will not be misled by the vaunted capabilities and ambitions of a few—a very few—of the secondary schools.

EDUCATIONAL INTELLIGENCE.

THE Toronto University Prize and Honour Lists will appear in our next number.

MR. W. DALE M.A., has been appointed Classical Tutor, University College, *vice* Mr. Vines resigned.

A THIRD Division has been formed in the Listowell High School, with Mr. W. H. Smith as teacher.

MR. J. J. TILLEY has been appointed one of the Inspectors of the Model Schools of the Province of Ontario.

THE Governor-General will present a medal and prize for competition among the students at the Plateau Catholic Academy, Montreal.

MR. ALFRED BAKER, M.A., Registrar of Toronto University has been appointed Dean of University College *vice* Mr. Vines resigned.

MR. MCKINNON, of Peel, while retaining his own inspectorate, has received the additional appointment of Inspector of Public Schools for the city of St. Catharines.

MR. T. A. OWEN, B.A., who has been teaching the Demorestville Public School for some months, has secured a position as first assistant teacher in the Trenton High School.

IT is understood that the Ontario Minister of Education will provide, at an early date, for an alteration of the sessions of the Normal Schools, so as to include both sessions within the calendar year.

MR. CARSCADDEN is acting as Principal of Galt Collegiate Institute during the absence of Mr. Bryant, while the latter is engaged in editing the new readers. Mr. J. W. Reid, B.A., takes Mr. Bryant's place as Mathematical Master.

MR. PATRICK BOYLE, formerly of Brantford, has been appointed Head Master of the Separate Schools in Hamilton, in the room of Mr. C. Donovan, appointed Assistant Inspector of Separate Schools for the Province.

THE GILCHRIST EXAMINATION.—Only one gentleman has signified his intention of writing at this examination—Mr. C. F. Durand, of this city. Messrs. W. H. Fraser, B.A., and J. G. Holmes, are the presiding examiners at Toronto.

THE subscriptions for the Moss scholarship, to be established in the University of Toronto, in memory of the late Chief Justice Moss, are sufficiently large to enable the Senate to offer an annual scholarship of

\$150. Vice-Chancellor Mulock headed the list with \$500.

REV. W. T. HERRIDGE, M.A., son of Rev. W. Herridge, formerly of London, has won a \$500 scholarship at the Edinburgh University since last October. Mr. Herridge, it will be remembered, is an old pupil of Brampton, Galt, and Hamilton schools, and a graduate of Toronto University.

DR. KEMP, at one time Principal of the Brantford Young Ladies' College and subsequently of the Ottawa Ladies' College, died recently in Hamilton, Ont. Beside the important services Dr. Kemp rendered the Presbyterian Church both as a pastor and a teacher, his literary labours were abundant.

WE regret to have to state that Mr. A. B. Cooke, B.A., Principal of the Streetville High School, formerly of the High School here, had the misfortune to break one of his legs recently, in consequence of having been thrown out of a buggy. In the meanwhile Mr. Frank Riddell is taking his place in the school.

MR. WELBURN ALKIN, Assistant Mathematical Master in the St. Catharines' Collegiate Institute, has just been appointed successor to the late Mr. Butler in the inspectorate of the County of Elgin. Mr. Alkin is an earnest, energetic, and successful teacher, and cannot but prove an admirable Inspector.

THE closing exercises of the various Theological Halls throughout the Dominion, and especially of Knox College, McMaster Hall, Wycliffe College, Toronto, were this year of an unusually interesting character, and revealed a degree of progress that must be gratifying to the friends of these important factors in the educational system of the country.

MR. W. E. TILLEY, M.A., Head Master of the Lindsay High School has been appointed Inspector of Public Schools for the County of Durham *vice* Mr. J. J. Tilley appointed Inspector of County Model Schools. The announcement says the *Lindsay Post* will be read with general regret, for it means the loss of an admirable and thorough-going teacher, but all will join us in congratulating Mr. Tilley on his deserved promotion.

NEW HIGH SCHOOL.—The High School trustees have at last decided on the site of the new school-house. At their meeting on Tuesday evening they agreed to purchase the lot owned by Mr. Fead, adjoining Mr.

Haun's residence. No better choice could have been made. The situation is good in every respect, being easy of access, surrounded with streets, in a prominent and healthy position, and the price is very low—nearly an acre for \$300.—*Orangetown Advertiser.*

So favourably has the Education Department been impressed with the success of what the Government Inspector calls the "Commercial College department of the Collegiate Institute," that Mr. Knight has been specially asked to report to the Government on the advisability of "widening the High School programme so as to afford a more direct training for business."—*The Whig.*

At the Toronto Semi-Centennial Celebration there is to be an "Educational Day, to be specially commemorative of our educational institutions." The programme is as follows:—Saturday, July 5th—Parade to comprise officers of our educational departments, and tableaux illustrative of progress made; representatives from our universities, colleges, schools, and charitable institutions. Afternoon—Concert at the Pavilion—choruses by over six hundred school children.

At a meeting of the School Board Bowmanville, May 9th, it was moved by Mr. Fairbairn, seconded by Mr. Harnden, that a special committee be appointed to procure a plan for a new High School building, to recommend the portion of present lot on which said building may be erected, the cost of building; or, if in their opinion a suitable addition can be made to the present school, to submit a plan of the same at the next meeting, said committee to consist of the chairman, Col. Cubitt, the chairman of property committee, and chairman of visiting committee. The High School Inspector states in his report to the Minister a new building is greatly needed. For the wealth and importance of the town, the High School accommodation is probably the worst in Ontario.

At the meeting of the Ottawa Teachers' Association it was resolved "That the members of the Ottawa Teachers' Association deeply regret that the Presbytery of Ottawa should, at the recent meeting, publicly proclaim its hostility to the education provided in our public schools; that the hostility thus manifested is not warranted from any fair, honest, and impartial consideration of the general character of the education provided in our public schools; that by assuming that the character of education provided in our public schools is hostile to the cause of Christ, and is an evil to be watched against, and as far as possible to be removed, such deliverances will tend to hinder, and not to further, the raising of the Bible from

its present assumed subordinate position in the public schools to the higher position sought to be secured for it."

At a meeting of the directors of the Industrial School Association, Toronto, it was reported that \$6,000 had been received from the Government, and \$20,000 was required to complete the buildings. It was also reported that only \$400 had been received in reference to the appeal for contributions, and this response was considered very meagre. The architect, Mr. Storm, reported that he had made the preliminary plans for the proposed building for the accommodation of the school. Mr. Howland stated that he had been given to understand that a lady interested in the work of the Association was willing to erect at her own expense one of the proposed cottages, provided the same be constructed of brick. Various measures looking to the early starting of the school and placing it upon a permanent basis were considered, and several committees were appointed to gather details respecting them, to be reported at a meeting to be held at 4 p.m.—*Globe.*

THE twenty-fourth Annual Convention of the Ontario Teachers' Association, will be held in Toronto, on Tuesday, Wednesday, and Thursday, August 12th, 13th, and 14th, 1884. PROGRAMME—*General Association.* Uniformity of Text Books, Mr. William Carlyle, Woodstock; Increased Legislative Aid to Public Schools, Mr. William Macintosh, Madoc; How best to secure the Permanence and to increase the efficiency of the County Model Schools, Mr. G. W. Johnston, Hamilton; Status and Value of Third Class Certificates, Mr. F. H. Mitchell, Perth; University Consolidation and Legislative Aid to Colleges, Mr. A. P. Knight, Kingston; Industrial Education, Mr. James L. Hughes, Toronto; Addresses will also be delivered by the Hon. G. W. Ross, Minister of Education, Dr. Geo. M. Grant, of Kingston, and Colonel F. W. Parker, of Illinois. *Public School Section.*—Our Profession from an experience of thirty-two years, Mr. James Duncan, Windsor; The Superannuation Fund, Mr. John Campbell, Toronto; A Plea for Reading and Writing in our Schools, Mr. F. C. Powell, Kincardine; Advancing Certificates from Grade to Grade on experience, Mr. R. Alexander, Galt. *Public School Inspector's Section.*—Amendments to the School Law, Messrs. D. J. McKinnon, Brampton, and Robert Little, Acton; How may an Inspector be of most service to his Inspectorate? Mr. William Mackintosh, Madoc; The Public School Programme, Mr. A. Campbell, Kincardine; Advisability of extending the time for which Third Class Certificates are

Valid, Mr. F. L. Michell, Perth. *High School Section.*—A Commercial Department in High Schools and Collegiate Institutes, Mr. J. E. Bryant, Galt; Matriculation Examination of Toronto University, Mr. H. I. Strang, Goderich; The Equalization of the work in High School Options for Second and Third Class Certificates, Mr. J. A. Clarke, Smith's Falls; Report of Committee on "Subjects in Natural Science for Matriculation," Messrs. J. E. Bryant, J. Turnbull, and D. C. McHenry.

THE Toronto Public School Principals' Association thinking that an attempt will be made to abolish the Superannuation Fund in the Province of Ontario, has submitted the following questions for consideration to the different Teachers' Conventions of the Province:—

1. Was not the fund established (1) to encourage teachers to remain in the profession; (2) to compensate teachers in some measure for the inadequate salaries they received, by making some provision for them when they became incapacitated for duty?

2. What effect will the abolition of the pension grants have on the educational interests of the Province?

3. As it is admitted that the labours of teachers are indispensable to the public good, are their claims for aid, in their declining years, unusual or are they derogatory to their dignity or self-respect, in view of the fact that Ministers of State, Judges, and other public functionaries receive similar compensation for their services, and that churches regard it as a sacred obligation to superannuate their clergymen, to whose duties, in their moral aspect and influences, those of the school teachers bear so close an analogy?

4. Is it probable that the existence of the teachers' pension grant tends to prevent an increase of salaries, and that its abolition would induce the public to compensate them adequately for the loss thus sustained?

5. Would it not be more just to act on the merits of the case by a consideration of the services and claims of those teachers who spend their lives in the profession, rather than be guided by the decision of those who engage in school teaching only until they can enter upon more lucrative employment?

6. Are any teachers, whether they remain in the profession or not, justified in objecting to pay the small amount levied, in view of the advantages they receive, and of the claims of those who remain until incapacitated by age or infirmity?

EAST VICTORIA TEACHERS' ASSOCIATION.
—There was a large gathering of trustees as well as teachers at the Friday afternoon session of the Victoria teachers' convention

to hear Hon. Mr. Ross's address on education subjects. After some preliminary business had received attention, Hon. Mr. Ross adverted to the several subjects on the programme. He said it was very desirable to limit the third-class teacher to his own county so as to see how he got on under the inspector. They would grant renewals or permits in certain cases or districts but always under protest. They did not want to let permits enter into competition with experienced teachers. The permit would tend to keep salaries low; but worse than that he represented limited attainments. Another question was: Shall we go back to the old board of examiners? Mr. Ross said he was in favour of that course. With county boards we could adjust the educational standard to the educational status of the counties. At present everybody was fitted to the same standard at Toronto, and it made no difference what the county status was. Then again he thought there was something in the examiners knowing something of the candidates. It was not always those who had the most technical knowledge who made the best teachers. The county boards would know the candidates, their circumstances and attainments, and of what stuff they were made. The county boards would have more experience and judgment than the provincial examiners could possibly have. The third-class examination should have a public school course only, leaving optional subjects for the second-class. Reading, writing and arithmetic should be the great essentials for this class; and for second class the teachers' knowledge should be so widened and broadened that they would keep abreast of the times and advance the cause of education. They desired to urge third-class to study and advance to the second if not higher. Mr. Ross then proceeded to deal with the superannuation fund. Of the \$51,000 required each year the sum of \$12,000 was contributed by the teachers, leaving over \$38,000 to be made up by the province. There was a strong feeling in the house that the Provincial Exchequer should be relieved of that charge; and something would have to be done in the matter. His own opinion was that teachers could manage their own savings as well as any other person. There had been petitions to Parliament to have vote by ballot for trustees and to have the nominations in villages, towns and cities on the same day as municipal elections were held. It was thought that this would excite greater interest in school matters. Personally he was in favour of that view. He was in favour of any plan that would save time and labour. It was not intended to apply this plan to separate schools or to rural schools. One objection

stated to having the nominations on the same day as the municipal elections, was that it would be the means of introducing politics into school matters; but he was not afraid of the politics that might be introduced incidentally into school matters. The great danger is that the good Christian, strong-minded men did not come out and identify themselves enough in active politics. He proposed to reduce the grant to teachers' institutes to \$25 each per year; but to make up for that it was proposed that at least once in each year a conductor of institutes should attend and discuss educational subjects and deliver a lecture without cost to the association. He hoped to be able to abolish intermediate examinations for they had outlived their usefulness. It was deemed desirable to erect some standard to represent graduation from a high school and to provide a distinct end for the high school course, just as the B.A. indicates the end of the university course, and he would endeavour to co-operate with the university so that graduation from the high school would be the same as matriculation at the university. Mr. Ross then took up the text-book question. He said they had decided to have but one set of readers. These were now in course of preparation and would be ready for the opening of the schools in 1885. They now had six grammars, but he was told by teachers that there was not a good one in the lot. It was proposed that there should be one grammar for the public school course, and another grammar for the high school course. The same plan would be adopted for geographies. Mr. Ross then referred briefly to holidays which would in future be arranged so as to suit the varying conditions of the different parts of the province.

The superannuation question then received animated discussion, and finally a resolution by Mr. Lees, seconded by Mr. Herron, was adopted. The resolution stated that in the opinion of the association the principle of superannuation is wrong and should be abolished by the government as soon as any scheme can be devised to do justice to those who have contributed.

The question of returning to county boards was discussed, and a resolution by Rev. Mr. Pomeroy recommending a return to that plan was adopted.

On the question of voting by ballot for trustees Dr. Norris of Omamee said there was certainly great apathy under the present system, but he had seen great apathy in municipal matters. Voting by ballot would be very useful and he certainly had no objection. It would be a great benefit and convenience to have school nominations on the same day the people were all there to discuss school and municipal matters.

At the Saturday session the following officers were elected for the ensuing year: President, Mr. O'Boyle; 1st vice-president, Mr. Sheppard; 2nd vice-president, Miss Rowe; treasurer, Miss Peplow; librarian, Mr. Hallett; secretary, Mr. Head; committee, Messrs. Burgess, Lees, Sherwood, O'Brien, Knight and the Misses Wray and McSweyn.

Cordial votes of thanks were passed to the retiring president, Mr. Hallett, and other officers of the past year, and the convention was closed. The proceedings were more than ordinarily interesting.—*Lindsay Post*.

VICTORIA UNIVERSITY.

THE annual meeting of the Alumni Association was held, at Cobourg, on Tuesday evening, May 7. J. J. McLaren, Esq., M.A., LL.B., Q.C., occupied the chair, and delivered an earnest practical address, in which he expressed his pleasure at meeting so many of his associates of former days, and stated his views at great length on higher education.

Mr. H. Hough, secretary-treasurer, read the minutes of the previous meeting, which were approved.

A lengthened conversation ensued respecting the subject of the president's address, in which a considerable number of the alumni took part, but as the conversation was largely of an informal character, and was merely the exchange of views, no resolutions were adopted.

ELECTION OF OFFICERS.

The following officers were elected for the ensuing year:—President, Rev. D. G. Sutherland, M.A., LL.B.; Vice Presidents, Rev. Dr. Meecham and H. S. McMullen, Esq.; Secretary-Treasurer, H. Hough, M.A.; Assistant Secretary, Mr. Hayden, M.A.; Council, all graduates residing in Cobourg.

Ballots were cast for the representative of the Alumni on the Senate of the University, and Rev. F. H. Wallace, B.D., M.A., and Professor Bell were appointed scrutineers, who reported that the Rev. A. Burns, D.D., LL.D., was duly elected.

ANNUAL CONVOCATION.

The Annual convocation of the University of Victoria College was held in the Town hall.

Rev. Dr. Nelles, principal of the University, presided, and among those present with him on the platform were Hon. G. W. Ross, M.P.P., Rev. Dr. Carman, superintendent-elect of the Methodist Church; Rev. Dr. Meecham (Japan), Rev. Dr. Burwash, Rev. Prof. Workman, Rev. Prof. Rayner, Prof. Bell, Dr. D. G. Sutherland (St. Thomas), Dr. Haanel, Dr. Purslow, Rev. R. Jones, Mr. Wm. Beatty (Parry Sound), Rev. Prof. Shaw, Montreal; Rev. Dr.

Jacques, of Albert University, Belleville; Rev. F. H. Wallace, Rev. Dr. Badgely (Belleville), Rev. E. Burrass (Kleinburg), Mr. J. J. McLaren, Q. C. (Toronto), Mr. S. F. Lazier (Hamilton), Dr. Ogden (Toronto), Mr. Jas. Mills, principal of the Agricultural College, Guelph; Mr. D. C. McHenry, Collegiate Institute, Cobourg; Rev. James Allen (Ottawa), Prof. Bain, Mr. Wm. Kerr, Q. C., Judge Dumble, Prof. Wilson, Mr. E. O'Ham, delegate of the College Science Department to the British Association, and others.

The proceedings were opened with prayer by the Rev. R. Jones.

Mr. Wm. Elliott, B. A., then delivered the valedictory oration.

THE GRADUATES OF THE YEAR.

B. A.—G. S. Deeks, L. E. Horning, Prince of Wales gold medallists; R. S. Box, W. Elliott, F. M. Field, C. I. T. Gould, J. W. Grey, R. W. Harris, W. F. Kerr, S. C. Warner, A. L. Langford, R. M. Pascoe, H. W. Peck.

B. Sc.—Nellie C. Greenwood, Julia F. Hannel (*ad eundem*).

B. D.—J. B. Freeman, B. A.

L. L. B.—E. A. Stafford, M. A.

M. A.—D. W. Davis, B. A., J. W. St. John, B. A., J. B. Freeman, B. A., W. K. Short, M. A., Dublin (*ad eundem*) G. J. Laird, B. A.

M. D. and C. M.—Geo. H. Carveth, Chas. M. Foster, Thos. W. Simpson, Geo. A. Cherry, John E. Elliott, Henry S. Martin, Duncan Campbell, E. F. Hixon, Lewis G. Langstaff, Alex. Sangster, S. S. E. C. MacDowall; A. T. Rice, Chas. W. Hunt, Geo. S. Wattam, Jas. H. Joliffe, Jos. O. Orr, W. N. Robertson, Alex. Brodfoot, Frank Beemer, John K. Phillips, Walter C. Chaffer, J. H. C. Willoughby, Harry E. Webster, Alf. Corbitt Smith.

M. D.—F. H. Daignault, J. Od. Berthraume, Geo. E. Beaudoin, Jos. Courtois, Aug. Denis, J. F. Taner, Dubois, Jos. Wilfr. Theoret, P. Az. Letourneau, Rotr. Mignault, Alph. Langevin, S. Hec. Br. sseau Wilfr. Trudeau, Hormsid Gauthier, John F. McCaffrey, Aimé A. Leblanc, Luc. J. Belliveau, L. Ovidi Morassi, W. T. Fournier, Hect. Leduc, Alf. Edon Richard, Jules Paradis, Ismael Verner, Franc. Murray, Andre Seguin, Chas. Girard, J. Alf. Gagnon, Alf. Duckitt, Dav. Dufresne.

C. M.—Emile Simard.

M. D. and C. M.—L. Gust. Verneuil de Lorimier, G. A. Bourgeois.

D. D.—Rev. Benjamin Gregory.

L. L. D.—Rev. W. H. Dallinger.

Rev. Dr. Nelles said they had had the honour of admitting that day the first lady to a degree in the department of natural science, that they had ever been permitted to

admit. He wished to take occasion to congratulate the Methodist Universities of Canada in taking the lead in the great work, if it were a great work, of co-education. The first admission in Canada of a lady to the degree of B. Sc. was at the University of Sackville, New Brunswick, some nine years ago, and the degree of B. A. was conferred on a lady there some two years ago, so that they might congratulate their sister university of the Methodist Church in the Province of New Brunswick for being first to take this important step. This was the first time they had the opportunity of admitting a lady to a degree in science or arts, although for some time they had ladies in attendance at the lectures.

The different medals, honours, scholarships, and prizes were presented to the winners by Hon. G. W. Ross, Rev. Dr. Nelles, Rev. Dr. Carman, and Rev. Dr. D. G. Sutherland as follows:—

Faculty of Arts.—Prince of Wales' gold medals, G. S. Deeks, L. E. Horning; gold medal in metaphysics, W. Elliott; silver medal in metaphysics, L. E. Horning; silver medal in mathematics, G. S. Deeks; silver medal in natural science, R. W. Harris; silver medal in modern languages, W. F. Kerr; 1st. class honours in metaphysics, W. Elliott, L. E. Horning, F. M. Field; 2nd class honours in metaphysics, R. M. Pascoe, H. W. Peck; 2nd class honours in classics, J. W. Grey, A. L. Langford; 1st class honours in mathematics, G. S. Deeks; 1st class honours in natural science, R. W. Harris; 2nd class honours in natural science, H. W. Peck; 1st class honours in modern languages, W. F. Kerr; 1st class honours in modern languages, L. E. Horning; 1st scholarship in classics (matriculation), E. B. Ryckman; 1st scholarship in mathematics (matriculation), J. N. Fish; 2nd scholarship in mathematics (matriculation), E. B. Ryckman; 1st scholarship in English (matriculation) A. B. Willmott; 2nd scholarship in English (matriculation), E. B. Ryckman; 1st scholarship in modern languages (matriculation), E. B. Ryckman; 2nd scholarship in modern languages (matriculation), G. W. McCall; Punshon prize and valedictory, W. Elliott; Wilson memorial prize, G. S. Deeks; Clarke prize, F. M. Field; Wallbridge prize, T. J. Courtice; Webster Prize, E. H. Koyl; Ryerson Prize, W. W. Andrews, J. Wilson.

Faculty of Theology.—Gold medal in theology, J. B. Freeman, B. A.; first-class honours in theology, J. B. Freeman, B. A.; McDonald bursary, F. B. Sacey; fellowship of theological union G. C. Poyser.

Literary Association Prizes.—First in elocution, R. P. Bowles; prize college song, F. M. Field.

REV. DR. FELLERS' ADDRESS.

The President said he did not propose to enter at any length into an account of the work of the college, as several other gentlemen were to speak to them. The past year had been rendered memorable for the very interesting and ably conducted controversy on the university question, the great matter of higher education. There was a lull in the question at present, and had been for months past. This great subject was still waiting for the wise and good man, the patriotic statesman, to come forward and give a solution of it, satisfactory to the different universities and to the people of the country at large. It was not his intention to say anything on that occasion, but he might just point out one thing which had been more obvious than ever, that of the six universities in the province—up to quite recently there were seven, but a happy union of Victoria and Albert Colleges had taken place, and made them stronger—these six universities were all affected by one common calamity, he might almost call it a common characteristic certainly—they were all poor. (Laughter.) They all professed poverty and the position in most cases evidently went with the profession. If the endowments of the whole six were rolled into one he did not think any one would say that the sum was too large for one university in this year of advanced intellectual training. In what way these funds could be increased he was not going to say. There were two methods open, one by private liberality the other by the gifts of the State. Whatever might be their lot in the future, whatever solution might be arrived at, no one could now foresee, and he would not attempt to indicate at all, but he was hopeful that during the career of the present enterprising and energetic Minister of Education that these important matters of university life and the necessities of our people in reference to liberal culture would receive such careful thought and such wisdom of planning and arranging as to place matters in a few years on a better footing than that on which they stood to-day. The only difficulty which seemed to stand in the way, was that of an objection on the part of people for different reasons in appropriating large sums of money for higher education, but it was a remarkable fact that while the universities were struggling and languishing, circumscribed in their efforts for the want of funds, millions were being appropriated in material improvement for the building of great railways and for other enterprises, all well in their way, but not more pressing than the intellectual progress and life of the people. (Hear, hear.) He trusted that the great claim of higher educa-

tion in the different seminaries of the land, would receive a more thoughtful and more successful treatment in the future on the part of our statesmen than had received in the past.

HON. G. W. ROSS'S ADDRESS.

Hon. G. W. Ross referred to the grand work of education the college was doing, and said it was for that reason he was there. They had a provincial university, said to be non-sectarian, doing a great work, and yet that university, deriving its funds from the liberality and bounty of the State, appreciated, as he appreciated, the work being done in Victoria and the other denominational colleges of the Dominion. The question had already been brought before them as to the dividing line between Church and State in the work of education. He was not going to discuss that question with a view to evolve any new principle, but would simply call attention to the policy of the people of this country on that question. Beginning with the foundation of our educational system, the Public Schools, they had a non-denominational system of education. Rising above that was the High School system, similarly supported, then there was the University, supported almost entirely by the bounty of the State. It was said there were Institutions which did similar work to the Provincial University and did it well, and in that respect in giving an arts course they were displaying the work of the Provincial University. He was a conservator of force. Where it was possible by the union of force to lessen labour and achieve certain results, he said let them unite their forces. If it were possible for the various Churches to carry out their denominational work, if they believed it could be done with safety to the moral and intellectual life of the people, leaving it to the State to do purely secular work, if they believe the State could be trusted to do it, there would be money saved, professional force saved, perhaps even greater results achieved. Mr. Ross concluded his address by a few words of advice to the graduating class.

The Annual Conversation under the auspices of the Literary and Alumni Association was held in the evening.—(Condensed from *Globe* Report).

QUEEN'S UNIVERSITY, KINGSTON.

The convocation proceedings in connection with the Queen's College occurred, April 29, and to witness them a large number came from a distance. After prayer by Dr. Smith, of St. John, N. B., the vice-Principal, Dr. Grant, delivered an address, in which he stated that the attendance in arts, in medicine, and in theology, in each and

every department of the University, had been larger than in any previous year in the history of Queen's. In arts 216 attended classes; in medicine, 102; in theology, 25. Allowing for those who were registered in more than one faculty, the total number of students is 270. The only other event in the history of the year to which I need avert is the receipt by the Treasurer of two bequests from old friends who have passed over to the majority—one of \$5,000 from the late David Greenshield, of Montreal, and one of \$4,000 from the late James Michie, of Toronto. Again to-morrow for the first time in the history of our University, women will be crowned with the bay-berry wreath. Miss Fitzgerald matriculated in Toronto, and Miss Fowler in Fredericton. Both have studied here long enough to prove themselves model students. Of all the graduates who shall be enrolled to-morrow in our calendar, I believe that none are more likely to confer honour on the University. Miss Fitzgerald carries off the Prince of Wales Gold Medal in classics. For the first time, too, in our history women are to be admitted to the degree of M.D. Mrs. McGillivray, not satisfied with the knowledge of chemistry required of medical students, has worked diligently in the arts laboratory for years, and now is to carry off the Chemistry Gold Medal given by Mr. Carruthers. Miss Beatty has offered herself to the Church for Foreign Mission work; Miss Smith, I believe, intends to take a past graduate course.

Then followed the addresses of the valedictorians. The first speaker was Mr. J. Burnett, B.A., in behalf of "Divinity according to the College records." Mr. Ramsay Duff, M.D., was spokesman for the students of the Royal College of Physicians. Mr. A. Gaudier, B.A., represented the interests of the Art students. The presentation of the portraits of ex-Principals Cook and Snodgrass now took place.

EXAMINATION RESULTS.

DEGREE OF B.A.

W. H. W. Boyle, Markdale; S. Childerhose, Cobden; G. E. Crown, Kingston; James C. Connell, Dundas; Jno. Cook, Cataraqui; Wm. E. D'Argent, Wolfe Island; John E. Duclos, Otter Lake; Eliza S. Fitzgerald, St. Catharines; Annie L. Fowler, Kingston; A. Gaudier, Fort Coulonge; H. Halliday, Renfrew; G. F. Henderston, Kingston; H. M. McCuaig, Kingston; A. J. McDonnell, Morrisburg; R. J. McLennan, Lindsay; J. P. McNaughton, Drummondville; Isaac Newlands, Kingston; Andrew Paterson, Richmond; Louis Perrin, Kincardine; M. S. Robertson, Violet; Daniel W. Stewart, Renfrew.

DEGREE OF M.A.

J. Young, B.A., Colborne; S. W. Dyde, B.A., Kingston.

DEGREE OF B.D.

James Murray, B.A., Pictou, N.S.

DEGREE OF D.Sc.

Rev. Robert Campbell, M.A. Renfrew.

GRADUATES IN MEDICINE.

W. H. Bullis, R. J. Cartwright, H. R. Duff, H. J. Emery, A. A. Forin, E. Forrester, B.A.; Edward Foxton, R. N. Frazier, J. Herald, M.A.; C. G. McCammon, D. H. Mackie, J. E. Stirling, W. J. Webster, H. S. Williams, Elizabeth R. Beatty, Alice McGillivray, Elizabeth Smith.

GOLD MEDALLISTS

Classics, Prince of Wales Medal—Eliza S. Fitzgerald, B.A.

Philosophy, Mayor's Medal—S. W. Dyde, M.A.

Chemistry, Carruthers Medal—Alice McGillivray, M.D.

SILVER MEDALLISTS

History special—Geo. F. Henderson, B.A.
Political Economy, graduates,—John Hay, B.A.

ARTS SCHOLARSHIPS.

Foundation No. 3 (\$50)—W. A. Logie, Hamilton.

Church No. 1 (\$65)—I. McKay, Williamstown.

St. Andrew's Church, Toronto, (\$50)—Johnson Henderson, Kingston.

Toronto (\$60)—J. Rutley, Kingston.

Glass Memorial (\$35)—John Finlay, Cataraqui.

McIntyre (\$50)—John McKinnon, Prince Edward Island.

Church No. 2 (\$60)—O. N. Bennett, Peterboro'.

Foundation No. 4 (\$50)—A. Gaudier, Fort Coulonge, and I. Snowden, Kincardine.

Foundation No. 5 (\$50)—H. E. Horsey, Kingston.

Foundation No. 6 (\$50)—Gardner, Kingston.

Nickle (\$50)—W. Nicol, Cataraqui.

Cataraqui (history, \$50)—Miss M. Spooner, Kingston.

SCHOLARSHIPS IN THEOLOGY.

Leitch Memorial (\$80)—A. R. Linton, Orono.

Spence (\$60)—With honours of Church of Scotland, No. 3, Rankin and Anderson No. 2, tenable for two years.

R. McKay; Pictou, N. S., Anderson No. 3 (\$20)—James Bennett, B.A., Scotland.

MacKerras memorial (\$25)—John More, B.A., Phillipston.

Hugh McLellan (\$25)—D. McTavish.

M.A., Stone, and James Murray, B.A., Pictou, N. S.

Rankin, with honour of Anderson No. 1 (\$25)—John Hay, B.A., Pemberton.

Anderson No. 2 (\$30)—John McLeod, P. E. Island.

Anderson No. 1 (\$50)—R. C. Murray, Pictou, N. S.

Church of Scotland, No. 4 (\$40)—James Grant, Guelph.

FIRST-CLASS HONOURS.

Classics—Eliza S. Fitzgerald, B.A.

Philosophy—S. W. Dyde, M.A.

Chemistry—Alice McGillivray.

Political Economy—John Hay, B.A., and Adam R. Linton, B.A.

English Language and Literature—George F. Henderson, B.A.

SECOND CLASS HONOURS.

History—G. F. Henderson, B.A.

Latin—John Cook, B.A.

Natural Science—C. A. Scott.

We regret that we cannot find room for the junior years

On April 30th the distribution of prizes took place.

PRIZE ESSAYS.

Rev. D. B. MacLaren's prize of \$75 for the best essay on "The relation of animals and plants," was won by Mr. W. Spankie, B.A., a graduate of 1882.

The chancellor offered a prize of \$50 for an essay on "How best to develop brain power in youth so as to preserve it in health and vigour for application in manhood and old age." There were two competitors, and both adopted as their motto *Mens sana in corpore sano*. The essays were so nearly like in merit that the amount was divided between them—W. Spankie, B.A., and John Herald, M.A.

Rev. Mr. Robertson, late of Nova Scotia, now of Erromango, gave \$25 for the best essay on missions. It was won by Mr. James Bennett, B.A., the valedictorian of yesterday.

The distribution of gold and silver medals followed, and great was the enthusiasm and demonstration when Miss E. F. Fitzgerald was summoned to receive that provided by the Prince of Wales for distinction in classics.

HONORARY TITLES.

Vice-Principal Williamson moved to have the names of three eminent gentlemen added to the list of those bearing honorary titles conferred by this University. In doing so he moved the following three addresses:—
Mr. Vice-Chancellor,—

I have the honour to present to you the name of Judge James R. Gowan as one on whom the Senate desires to confer the degree of LL.D., in special recognition of great public services in connection with our judicial system, the codification of our laws, and the educational and religious life of our country. It is scarcely possible to over-estimate the value of Judge Gowan's services, continued unwearily for nearly half a century, particularly as regards procedure in courts and the revision, consolidation, and classification of the statutes first of Upper Canada and subsequently of Ontario. For his labours in this latter work it may be mentioned that he was presented with a gold medal by the Government of Ontario. His literary labours and the many important and official positions he has held have not prevented him from undertaking other onerous duties to which the voice of his fellow-citizens called him, and in the discharge of which he has displayed the highest qualities of a good citizen and of an earnest Catholic Christian. He has acted for more than thirty years as chairman of the High School Board of the county of Simcoe, has aided to the utmost of his ability every good cause, and has endeared himself to his colleagues and the public by varied abilities—untiring industry, and sterling character.

Mr. Vice-Chancellor.—

I have the honour of presenting to you the name of Rev. Archibald Geikie, D.D., of Buthurst, New South Wales, as well meriting the degree of LL.D. from this University.

Mr. Vice-Chancellor.—

I have the honour to present a father in the church most worthy to receive the degree of D.D., the Rev. James Chalmers Burns, M.A., of Kirkliston, Scotland.

After addresses from the Vice-Principal and Dr. Jenkins of Montreal with a few words, Dr. Grant announced the close of the 43rd Session of Queens.—*Condensed from the Mail report.*

EDITOR'S TABLE.

WE are indebted to the Board of Education, New York, for a copy of the 42nd Annual Report. It contains a large mass of interesting information of which we hope to make some use in due time.

THE book-hunters of Toronto have been gratified of late by the rare finds made at the

shop of Mr. Britnell, 368 Yonge Street, Toronto. Mr. Britnell is bringing it from the old book stalls of London many valuable works long out of print. Visitors to the city during the Convention should give him a call.

STUDENTS of history are much interested

in the proposed excavation of Sèn, the Zoan of the Bible, the Jania of the Greeks, a city that has been aptly called "The Thebes of the Delta." Archæologists are hopeful of finding in it the lost history of the mysterious Hyskou, or Shepherd-Kings. The Rev. W. C. Winslow, of 429 Beacon St., Boston, has issued a circular inviting assistance for the project.

THE prospectus of the Philological Society's English Dictionary, edited by Dr. Murray and published at the Clarendon Press, may be had from any of the leading booksellers. Part I. A-A NT (pp. xvi. 352) of this extraordinary work which has been in preparation for more than a quarter of a century, has lately been published. We hope to be able to give it an extended notice in our next issue.

THE paper by W. H. Schuyler on "Academy Endowments" in *Lippincott's Magazine* for June is the one to which professional readers will turn first. Mr. Schuyler makes a strong plea in behalf of the extension of endowments as leading to more permanence and establishing a better grade of scholarship. Dr. Oswald's interesting and valuable papers on "Healthy Homes" are continued. *Lippincott's Magazine* is always readable.

PERHAPS the most interesting paper in *The Eclectic* (E. R. Pelton, New York) for June is Matthew Arnold's famous lecture on "Numbers." The classical scholar will also turn eagerly to "The Origin of the Alphabet" by Henry Bradley, and will not be disappointed. In spite of Mr. Swinburne, in "Wordsworth and Byron," the world will go on considering Byron a great poet. The man who has only the *Eclectic* to read will be sure to read the June number through, and be regretful that it is not longer.

WE are indebted to Vice-President Wilson for a copy of the proceedings and transactions of the Royal Society of Canada, Vol. I. (1882-1883). This superb volume, which is a credit to the publishing house of Messrs. Dawson Brothers, Montreal, deserves, both from its origin and its intrinsic merits, an extended notice at our hands. For the present this must be deferred, but in the meantime we can assure our High School friends that there are many papers in it of great interest to all reading men. It would not be amiss if the authorities would place a copy in every High School library.

THE professional as well as the general reader will be glad to learn that Dr. Hodgins, the Deputy-Minister of Education, has in preparation, though not for immediate publication, "The Educational System of Ontario," a corollary to his "Story of My Life," by Dr. Ryerson. Though the publi-

cation of the book will of necessity revive bitter controversies it is perhaps not well to delay publication too long. The present generation is far more interested in Dr. Ryerson than the next can possibly be. Dr. Hodgins will be glad to receive any original letters of Dr. Ryerson likely to be useful in preparing the narrative.

THE student of English literature who would like to see a slashing reply to ill-natured critics should read Richard Grant White's "Anatomizing of William Shakespeare," in *The Atlantic Monthly*. No Shakespearean scholar knows better what he is writing about: than the editor of the *Riverside Shakespeare*, and teachers of English in the High Schools should not miss what he has to say in these papers. Besides the excellent stories, "A Roman Singer" and "In War Time," "The Trail of the Sea-Serpent" and "Thomas Gold Appleton" will attract all readers. We must direct attention once more to the ever excellent "Books of the Month."

MESSRS. HARPERS assure us that they are striving to surpass all previous efforts in their publications, *The Monthly*, *The Banner*, *The Weekly*, and *Young People*, though it is difficult to see where any improvement is possible. In the June *Monthly* there is among other papers a very interesting and capably illustrated paper on "Biarritz." "The New York Custom House" by Wheatley, gives a good idea of the mysteries of fiscal regulations in a great sea-port. "Nature's Serial Story" goes on delightfully as does "Judith Shakespeare." Perhaps all scholars will turn first to "The Dagger: a story of the time of Sextus Pompey." We recommend once more to our boys and girls *Harper's Young People* as a most useful and entertaining paper.

THE issues of *The Popular Science Monthly* (D. Appleton & Co., New York, \$5.00 a year), for May and June, contain the usual array of valuable and interesting papers on scientific topics. Herbert Spencer's trenchant paper on "The Sins of Legislators" runs through both numbers. When all the articles reach a high standard of excellence it is difficult to particularize; but we may mention as being likely to prove interesting to our readers the papers: "The Progress of the Working Classes in the Last Half Century"; "The Morality of Happiness"; "A Sketch of Mary Somerville," in the May, and "Modes of Reproduction in Plants"; "The Life Work of Pasteur," and "Clean Drinking Water," in the June number. *The Popular Science Monthly* requires no praise, and the teacher is to be congratulated who can count it amongst his regular reading matter.