



# The Canada School Journal.

Vol. IV.

TORONTO, JUNE, 1879.

No. 25.

HIRAM ROBINSON, ESQ.,  
CHAIRMAN PUBLIC SCHOOL BOARD, OTTAWA.

It is so generally admitted that the extraordinary advance of public education in Canada is, in a very large measure, due to the admirable Public School system devised and brought into vigorous operation by the Rev. Dr. Ryerson, ably seconded by his Deputy, Dr. Hodgins, during the whole period of his incumbency, that it seems hardly necessary to allude to the fact, but it is equally true, though not so generally taken into account, that but for the intelligent zeal and hearty co-operation of scores and hundreds of noble-minded men, who, without fee or reward, save the consciousness of a patriotic duty well performed, have, as trustees, in their various localities, worked out the principles of the system, its success could not possibly have been so fully and extensively assured.

Among the cities and towns which have profited most by this philanthropic devotion, Ottawa takes a foremost rank, and among the men who have expended their best energies in the work, Mr. Hiram Robinson, Chairman of the Public School Board of that city (whose portrait accompanies this article), must take a leading place.

Mr. Robinson is a native-born Canadian, and, as his debonaire countenance indicates, a man in the full prime and vigour of life. He was born in the Township of West Hawkesbury, County of Prescott, in the year 1831, and is consequently forty-eight years of age. His own education was acquired in the Public and Grammar Schools of his county, which apparently has stood him in good stead, for from his early manhood to the present, he has filled offices of trust and responsibility in the great lumbering house of Hamilton Brothers, of whose extensive business in Ottawa he has been general manager since 1872.

Mr. Robinson was first elected school trustee in 1867, and as his biennial terms expired, was invariably re-elected by acclamation, than which no better evidence could be adduced of the high estimate placed upon his services by his fellow-citizens. Upon the retirement from the Board of the late Mr. Slater in 1871, Mr. Robinson was chosen Chairman, and year by year has been re-appointed to the office by the unanimous vote of his colleagues.

In 1867 the Public School Board of Ottawa did not own any school houses, but since then they have erected seven, six of which are large substantial buildings, with spacious grounds attached,

and furnished with all the appliances necessary to the successful accomplishment of the purpose for which they were erected. These buildings have cost something over \$72,000, and it may be doubted whether any other city in Ontario, in proportion to population, is better provided for in this respect.

It may also be worthy of remark that so well satisfied have the ratepayers been with the management of the Board that, large as the outlay has been, the chief promoters of it, among whom the Chairman occupies a foremost place, have, term by term, been re-elected either by acclamation or by very large majorities. Of these we may name Messrs. Kirby, LeSueur, Bronson, and Barber, chairmen respectively of the Furnishing, Management, Building, and Finance Committees.



(From a photograph by J. W. Topley, Ottawa.)

In 1867, the number of children on the rolls was 1,449 and the amount expended for education \$6,613.09; to-day the number is 8,100, and the annual expenditure \$28,216.18. The Chairman being himself a man of high moral tone, the proceedings of the Board, ever since his occupancy of the Chair, have uniformly been marked by courtesy and harmony—pleasant and honorable alike to himself and his colleagues.

The remarkable efficiency of the Public Schools of Ottawa was very emphatically recognized by the late Chief Superintendent and his excellent Deputy, and more recently by the Hon. Mr. Crooks, the present Minister of Education, himself, who went to that city last year for the express purpose of making a personal examination into the condition and working of those institutions.

On the occasion of the above visit a reception was tendered to the Hon. the Minister of

Education by the Trustees of the Public Schools, at which an address was presented to him. In his reply the Minister expressed his pleasure at listening to the exercises of the pupils, and remarked that the answers given to the various questions went to prove that the system of teaching pursued in the Ottawa schools was a sound one. He expressed himself as being especially well pleased with the geography examination. He was much pleased with the evident progressive state of the schools in Ottawa, and stated that the manifest success of the educational institutions of the city was due to the fact that trained teachers had always been engaged by the Board. The school buildings in Ottawa, he was glad to observe, were excellent, well kept, and there appeared to be an excellent feeling existing between the teachers and the pupils. He

stated that, so far as the Public Schools were concerned, he had not expected to see such handsome and well-arranged buildings; no structure could be better adapted for school purposes than the one used for Central School West.

When assuming the office of Chairman last January, to which he had been re-elected the ninth time, Mr. Robinson said: "The Board employs a staff of Teachers second to none in Canada, and it is most gratifying to the Trustees, who have been instrumental in promoting to the highest degree the efficiency of the Public Schools, to find their efforts so thoroughly appreciated, the schools being crowded with the children of the rich and the poor alike." This fact is sufficient of itself to show that the schools have abundantly fulfilled their mission; and Ottawa may well feel grateful to Mr. Robinson and his co-trustees for the valuable services they have rendered, and are still rendering, to the community.

## Gleanings.

### "GOING TO SCHOOL."

"Now, children, you have told me many members we have in the Legislature, who presides over each body, how laws are made, and how often a United States Senator is elected, and in return I will—"

I had reached this point the other evening when there came a ring at the door bell, and after a minute I discovered that Mr. Old Foggy had decided on another attack. He brought along two or three teachers with him, and they at once walked into my school-room. I did at first have a sign of "State Prison" over the door, so as to make it seem like a regular school house to the pupils, but as they insisted upon regarding it as a novelty I removed the sign.

"Well, you have been teaching, I see?" observed Mr. Old Foggy.

"Yes, six of these children belong in the neighborhood, and don't attend any regular school."

"We don't exactly agree on the school question, you know," said Mr. Old Foggy. "You did rather puzzle me the other night, but I'd like you to ask some of those teachers a few questions."

"Very well, Mr. Blank; how many bushels of wheat will make a barrel of flour?"

"Why, that isn't a regular question," he replied as he looked around.

"Isn't it? Your arithmetic says that sixty pounds of wheat make a bushel, and because it does not say how many bushels make a barrel of flour the farmer who is figuring on his year's supply must be left in ignorance. Here is Charlie, only nine years old—he may answer."

"From four and a half to five bushels," the boy replied.

"Now, Mr. Blank, can you name the more prominent stars?"

"I can, sir."

"I thought so, but can you tell me how many spokes there are in the front wheel of a buggy—can any of you?"

"I protest!" cried Mr. Old Foggy, but they didn't answer for all that.

"Well, Mr. Blank, can you translate Latin?"

"I can, sir."

"No doubt of it; but can you tell me how to preserve cider?"

"There you go again!" cried Mr. Old Foggy, but none of them could tell.

"Are you familiar with cube-root, Mr. Blank?"

"I am."

"But can you tell me the salary of our Governor?"

None of them could.

"Try some of the ladies," suggested Mr. Old Foggy, after a few more questions.

"All right. Miss Blank, are you good in algebra?"

"I think so."

"And can you tell me how many yards of cotton to buy for a pair of pillow slips?"

"Why no."

"Do you know what will take stains out of a table cloth, or grease out of a carpet?"

"No, sir."

"Can you mix a mustard plaster, tell me a ready family antidote for poison, suggest a family remedy for a cold or a sore throat, tell me how many yards in a bunch of dress braid, the number of

yards of ticking to make a bed-tick, a way to remove paint from windows, or how to make gruel for the sick?"

"No, sir."

"What are you driving at?" indignantly demanded Mr. Old Foggy.

"I'll let my class go and tell you. Let me first remark that I have not asked a question which these children here cannot answer. This little girl will promptly answer everything I have asked Miss Blank, and yet she is not ten years old. A month ago I told her that alum and brown sugar mixed together would relieve croup. A week ago, at dead of night, roused from sleep by her parents and the wails of her sick brother, she prepared the remedy while her father was after the doctor and her mother excited and helpless, and in half an hour the croup was gone. You ask me what I'm driving at? Women are called helpless, and we do not look to see them have presence of mind. Why are they so? Simply because they may know algebra by heart and yet not know what is an antidote for almost every poison. They learn astronomy; and yet don't know what is good for a burn, or how to stop the nose bleed. They know all about botany, and yet cannot tell what to do for a person who has fainted away."

"But I'm not a housekeeper," protested Miss Blank.

"No; well, every woman looks forward to marriage. They were born to. Every female expects to marry rich, but not one in five hundred can so marry as to throw the entire responsibility of her house on hired help. Six out of ten may have a servant, but unless the mistress knows how things should go, what can be expected of the girl? While the lady sits in the parlor and realizes that she can draw, play the piano and read French, the 'help' left to experiments, and having no interest, breaks, smashes and throws away, and the family are soon looking for a cheaper house. Miss Blank here may marry and never have to lift a hand, but if she knew every duty—if she knew remedies and recipes—wouldn't she have more self-reliance and be better prepared for her responsibilities?"

"Can you name one married lady in Detroit who makes use of algebra? Can you name one who is ever inconvenienced for the want of a knowledge of geometry? Do you know of one who wouldn't trade off all her Latin for a cure for corns?"

The other day a lady who can speak several languages and who graduated with high honors at Vassar wanted some nice pies made and put away for New Year's. Neither of her servant girls knew how to make them, and so the lady went out among her neighbors. She tried to remember what they told her, but her pies were made without sugar or salt and with only one crust. When told why "they tasted like bass-wood chips," she burst into tears and sobbed out:

"They educated me to be an idiot, instead of a woman!"—*M. Quad in Detroit Free Press.*

## SCHOOL APPARATUS.

School apparatus embraces all instrumentalities used for the purpose of illustration. Tools are not more important to the mechanic than *school apparatus* is to the teacher. The good teacher is skilful in the use of it, and when suitable it more than doubles his efficiency.

The district school set of implements, alone, is here considered. Schools of a higher grade are, usually, well supplied with apparatus. Only in district schools, where apparatus is most needed, do we find a lamentable destitution of it.

### I. THE BLACKBOARD HEADS THE LIST OF APPARATUS.

In all branches it is in constant requisition. The teacher who ignores the blackboard deserves to be ignored by the school board. It is an open confession of inefficiency.

1. *Extent.* The board should extend around the room, and should be from four to six feet wide. The bottom of the board should not be more than three feet from the floor. The teacher's board should extend up to the ceiling, to give place for programme, standing diagrams, etc. It is impossible to have too much blackboard surface in the school room.

2. *Material.* Slate is the best, but is rather expensive. *Liquid slating* is preferred by many to slate. Placed on a smooth plaster Paris wall, or a board, it gives entire satisfaction. Slated paper, attached to the wall, answers admirably and is not costly. The superiority and cheapness of liquid slating have caused the disuse

of all other materials. Slating may be procured from all dealers in school apparatus.

3. *Color.* Green is most grateful to the eye, and answers for all purposes as well as black. After years of observation and experiment, I am constrained to recommend the use of green. Give the board two coats of black, then two of green, and it will not need repairing for several years.

4. *Erasers.* During recitation, each member of the class should have an eraser. Small strips of sheepskin will answer, but it is better to secure a sufficient number of the best erasers.

5. *Crayon.* The common, cheap crayon gives the best satisfaction. If the erasing is done slowly, and with a downward movement, the dust is not seriously offensive. Pupils need to be trained to erase properly.

6. *Crayon Trough.* The wainscoting should extend up to the board. At the bottom of the board should be securely fastened a trough, three inches wide and one inch deep. In this is kept the erasers, also a supply of crayon. This is the best possible arrangement. Pupils need to be trained not to touch the crayons except in class, or by direction of the teacher.

7. *Use of Blackboard.* The least competent and most obscure teachers use the board in mathematics. The skilful teacher uses it in all recitations. In language and grammar the exercises are written on the board, and sentences are analyzed and parsed on the board. In geography maps are drawn and lessons outlined. In reading, words are spelled and defined; inflection, emphasis, pitch, force, and quality of voice are marked. But it is needless to enumerate. The qualified teacher will no more attempt to teach without ample blackboard surface than the farmer will attempt to farm without a plow.

#### II. READING APPARATUS.

Illustrated reading charts, slates and blackboards are all that are needed. To interpret and illustrate the lessons, every available object will be marshaled into service.

#### III. MATHEMATICAL APPARATUS.

Form and number must be taught to children concretely. Every step must be first taken objectively. Interest, clear ideas, and culture of the perceptive faculties result from this method.

1. *Geometrical Forms.* These can be made by teacher and pupils, but it is better to secure a box of accurately made forms. These forms are of great value in education.

2. *Bundles of small sticks,* 6 inches long, and about the thickness of matches, furnish the best means of illustrating the processes and operations of arithmetic. Each pupil is furnished a bundle of these sticks and trained to use them.

3. *The numeral frame* is valuable, and should have a place in every district school.

4. *Weights and measures* are necessary aids. With these, the drudgery of committing to memory unmeaning tables disappears. The study of denominate numbers becomes a real pleasure. The pupils understand what they are doing. Each child learns easily what he himself demonstrates by experiment. With these, the metric system may be rendered familiar to all, and the way prepared for its universal use.

#### IV. GEOGRAPHICAL APPARATUS.

The earth is the real basis of instruction in this branch. Each lesson is based on the child's observation and experience. Correct teaching leads the child to observe and discover for himself. Apparatus greatly aids.

1. *Globes.* A globe, in a case, eight to twelve inches in diameter, and a five-inch hemisphere globe are needed. With these nearly all geographical topics may be illustrated.

2. *Maps.* A set of outline maps, and local maps of the township, the county, and the State, are indispensable. These maps, as well as the globes, will be advantageously used in almost every recitation. Only quack teachers are guilty of the crime of leaving these valuable aids unused, or of suffering them to be destroyed. Shame on such stupidity and neglect.

3. As important as any of the instrumentalities mentioned, is the box of sand, the use of which gives the pupils accurate ideas of certain physical features of the earth. No teacher is excusable who omits making use of these easily obtained articles.

#### V. CABINET.

A small collection, to illustrate the natural sciences, can be made by the teachers and the pupils. The school board, of course, will provide cases.

1. *Mineral specimens* of the neighbourhood can be collected and

classified. Exchanges can be made with other sections. The pupils may secure the donation of fine specimens. Many geological specimens may also be procured.

2. *Botanical specimens.* The kinds of wood, leaves, flowers, grains, etc., of the surrounding country, may be prepared and arranged for the purposes of illustration. While affording recreation, the work of collecting and preparing these specimens will prove to be exceedingly profitable.

3. *Zoological specimens.* Birds, insects, shells, etc., may be secured and classified. These, and indeed nearly all the other objects collected, may be used to illustrate reading lessons, object lessons, lessons in geography, etc., etc.

4. *Value of the cabinet.* A small cabinet, suitable for a country school, is inexpensive; and, from year to year, it will increase in importance. Its value, educationally and practically, is very great. Pupils are trained to the habit of analytic observation. They learn to gain knowledge at first hand. It enables the teacher to open up to the children some of the most interesting phases of nature. The basis is laid in experience for all future achievements of science. The masses no longer limited to the R's, are introduced to the great realms of the natural world.

#### VI. COST.

It is astonishing, when we find that the common school set of apparatus costs only about \$60, that any school should be unsupplied. It is mortifying to know that less than one-third of the schools of the United States are unsupplied. Men squander millions on their appetites, and leave their children destitute of the necessities of intellectual life. Judicious expenditure is true economy. Money invested in

#### SCHOOL APPARATUS

pays the highest possible dividends.

#### VII. USE OF APPARATUS.

A prominent work in normal schools and normal institutes is to train teachers in the use of apparatus. But without such training the ingenious teacher may work up to a high degree of skill. Teaching is decidedly common sense work. Here is the child to be educated. Here are the instrumentalities. Great educational principles are the teacher's chart and compass. Good judgment guides in the application of means to ends.

The teacher is an artist. He fashions immortal spirits. Here, avoidable mistakes and the withholding of the necessary educational instrumentalities are worse than crimes.—*American Journal of Education.*

The Carleton Place *Herald* in an article on "School-room Headaches" says:—"Many people who have public school teachers among their acquaintances are firmly of the opinion that the school-room has a headache system all its own, and their impression would be strengthened if they were to interview boys and girls. There is nothing strange about the complaint; the only wonder is that it is not continuous and that anybody escaped it. With systems of heating and ventilation that are almost uniformly defective, and, worse yet, under the control of janitors who have no knowledge whatever of these departments of their business, and who are as apt as any other men to neglect or despise whatever they do not understand, many of our school-rooms are boxes almost hermetically sealed, into which hot air is being driven and compressed. The heat is frequently intolerable, the expired breath and other physical emanations of the children pollute the air to a degree extremely dangerous to health, so teacher and children, who, at nine o'clock entered the room in fair health and spirits, emerge at noon with listless step, aching head and deranged vital organs."

A mistaken notion of love sometimes induces a form of caresses and a show of affection not prompted by the heart, and only worthy of being despised. We have personally known teachers who were seized with an indiscriminate, overwhelming affection, at the very moment of their entrance into a school, who scattered in lavish profusion the most endearing adjectives, and who closed every day by sending each young hopeful home to his mother with a parting kiss.

A certain jolly member of the board of education once visited such a school. Four o'clock came, and the boys and girls stood up in marching order. The school-mistress took her station at the door, and, one by one, the departing urchins received a loving embrace. The afore-mentioned "member," to use his own words, in the excitement of the moment, forgot himself, and, thinking he was a boy again, joined the procession.

# The Canada School Journal

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## TO ADVERTISERS.

The SCHOOL JOURNAL is now the best medium in the Dominion of Canada for reaching Teachers and Trustees. As a proof of the rapid increase of its circulation ~~17~~ 1100 NEW SUBSCRIBERS were received from Nova Scotia in January, and 550 FROM NEW BRUNSWICK in February.

TORONTO, JUNE, 1879.

## HIGH SCHOOLS.

The 29th clause of the School Bill passed during the last session of the Ontario Legislature, is already bearing fruit. The Toronto Collegiate Institute is an exceedingly modest institution for the commercial and educational centre of the Province of Ontario. Several small towns in the province have finer buildings for their High Schools. It has been found too small, for some time, to accommodate those who were applying for admission. The trustees recently applied to the City Council for the sum of \$7,000 for the purpose of making the much needed addition to the building. Of course the money was refused. The City Council did what they never should have had the power to do, and for a time crippled one of Toronto's most worthy institutions. We say "for a time," because we have the fullest confidence that the intelligence of the people of Ontario will speedily demand the removal of the "29th clause."

In declining to grant the sum required, no one of the aldermen claimed that the school was as large as it should be. The estimates had to be reduced, the civic ship had to be lightened to make her float, and education was the first thing thrown overboard. Intelligent people would be disposed to smile at a crew who would attempt to lighten their vessel by throwing her compass overboard.

There is no doubt that great as is the injury caused by the clause named to the Public Schools, it is the High School System which will receive the severest shock—it is so easy to fasten the fallacy in the minds of many people who give little attention to the subject, that the state or municipality is only responsible for giving a good Public School education to the children of its citizens, and that those who desire anything more should pay for it. It is astonishing, too, how readily the humbler classes receive this dangerous philosophy. They do not seem to realize that it strikes most directly at what they should regard as one of the most sacred rights of their families—the privilege of receiving, not a merely elementary education, but a thorough mental training, free, or very nearly so, in the national schools of their country.

As a statement, in brief form, of the claims which the High School System has on the state, the following by the Rev. Joseph Cook, of Boston, is the clearest we have seen :

1. The education of poor children is the Plymouth Rock of American liberty.
2. No more mischievous lie is in public circulation than the assertion that the high schools are maintained by the poor man's money. The poor man pays only a poll tax. The rich support the schools.
3. The education of poor children, until they show of what they are capable, is the only measure that can give the state the full strength of its citizens.
4. Children are not educated to this degree in the common schools; but the abler of them may, in the high schools, awaken to a consciousness of their own capacities.
5. So far from its being an objection to high schools that they teach the poor and ignorant to be dissatisfied with their condition, the merit of high schools is that they awaken in poor children that have capacity a dissatisfaction with their condition and an omnipresent spirit of aspiration and self help.
6. Educated only in the rudiments taught in the common schools, the mass of poor children, even when of equal natural ability with the sons of the rich, are not likely to obtain an equipment that will enable them to compete with rich men's children, educated well.
7. The abolition of the high schools, open to the poor, tends, therefore, to widen the chasm between the children of rich and poor and to make of the latter an inferior class.
8. American institutions cannot bear the existence of permanent and hereditary class distinctions, based merely on birth and wealth.
9. The high schools are needed as much as military, naval, and agricultural schools. The latter are supported at the public expense and only a few attend them. The benefit they confer on the whole people is the justification of the tax on the whole people for their support.
10. The high schools are the nursery of that united citizenship which is essential to the perpetuity of American institutions.
11. The high schools are the indispensable nursery of teachers for the public common schools.
12. They are the nursery of industrial schools and of the inventors, who spring from the ranks of labor.
13. They are the nursery of colleges, and of the lawyers, physicians, and preachers, which the colleges help to prepare for the service of the people.
14. Secondary instruction gives civilization the benefit of its best leadership. It is a silver link between the iron link of primary and the golden link of liberal education, and gives the best public men a connection closer than they would otherwise have with the masses, and gives the masses a confidence they would not, in America, otherwise attain in their best educated public men.
15. High schools are opposed by and to sectarians, who wish to have all instruction in their own hands, and who attack the common schools, which are the corner-stone of American civilization.

## TEACHERS' ASSOCIATIONS.

There is no doubt that teachers can themselves do a great deal to secure a proper appreciation of their services by society. That teaching has not received due recognition as a profession, is owing, to a certain extent, to the lack of unity of purpose and fidelity to each others' interests by teachers themselves. Teachers' Associations are developing professional spirit on the part of those who attend them; a greater degree of enthusiasm is manifested by teachers in their work in the schoolroom, and a correspondingly increasing value is set upon their labors. County Model Schools and County Associations conducted so regularly under the regulations of the Educational Department are doing excellent service in securing these and other desirable ends.

There is, work, however, of a wider character than that performed by County Associations which requires to be done. It is desirable that an educational parliament should be held annually to take into consideration the great questions directly and indirectly affecting the education of the province as a

whole. The decisions of this parliament, although not recognized by law, must of necessity have great weight with the law makers. The more extended in its sphere, and the more representative in its character this convention becomes, the greater will be the importance attached to its conclusions. When it becomes co-extensive with the province, when the leading educators meet yearly and become united in aim, and consolidated by the ties of friendly intercourse, the foundation for a great educational future for our country will be deeply and firmly laid.

The programme for the approaching Provincial Convention in August contains several very important practical subjects. It may be the last convention open to all teachers, and it is to be hoped that a large number of teachers and inspectors may attend it. The Association of Eastern Ontario has also issued a very attractive programme, which contains several subjects of immediate interest to teachers. This Association is not in any sense a rival of the Provincial Association. If the teachers of the district which it embraces give it a cordial support they must receive much benefit from it.

The Normal Educational Conference, to be held on Wellesley Island, promises to be one of the most practical meetings ever held in America. It is to be regretted that it is held at the same time as the Ontario Teachers' Convention. This was unavoidable for the present year, but will be remedied in future. Ontario teachers may, however, attend both.

The programmes of the three gatherings referred to are as follows:

**THE ANNUAL CONVENTION OF THE TEACHERS' ASSOCIATION OF THE PROVINCE OF ONTARIO.**

*To the Teachers, Inspectors of Schools, and Friends of Education, in the Province of Ontario.*

The nineteenth Annual Convention of the Ontario Teachers' Association will be held in the Public Hall of the Normal School Buildings, Toronto, on Tuesday, the 12th day of August next, at ten o'clock in the forenoon, and continue in session three days.

Tickets of membership may be procured by communicating with the Secretary. The Annual Fee is fifty cents to those who are members of Branch Associations, and one dollar to others. Ladies, engaged in teaching, free.

Most of the Railway Companies have agreed to grant Return Tickets to members attending the Convention, for one and a third fare, on the presentation of certificates at the beginning of the journey. Certificates may be obtained from Inspectors.

**PROGRAMME.**

- Tuesday* ..... 10.00 a.m.—Organization.  
 Treasurer's Report; F. S. Spence, Esq.  
 10.30 a.m.—Section Work.  
 2.00 p.m.—Reports of Committees on—1. The advisability of making the Association Representative; 2. The distribution of the Legislative and Municipal Grants.  
 8.00 p.m.—President's Address, James A. McLellan, M.A., LL.D., H.S.I.
- Wednesday*... 2.00 p.m.—Higher Education of Women; D. McHenry, M.A., Principal Collegiate Institute, Cobourg.  
 3.30 p.m.—Uniform Examinations for promotion in Public Schools; M. J. Kelly, M.A., M.D., P.S.I., Brantford.  
 8.00 p.m.—The order of Development of the Faculties in relation to Education; George Paxton Young, M.A., University College, Toronto.

- Thursday* ..... 2.00 p.m.—Physical Education in School; J. Coyle Brown, M.A., P.S.I., Peterborough.  
 3.30 p.m.—Is Compulsory Uniformity in Text Books Desirable? James Hughes, P.S.I., Toronto.  
 8.00 p.m.—Lecture by Rev. Dr. McVicar, Principal Presbyterian College, Montreal.

**PUBLIC SCHOOL SECTION.**

- The Utility of Teachers' Associations—D. Johnston, Cobourg.  
 Model School Work—W. B. Harvy, Barrie.  
 Recent Legislation—R. Alexander, Galt.  
 Phonic Reading—J. Hughes, Toronto.  
 Educational Journals—H. Dickenson, Stratford.

There will be a meeting of Model School Masters and Inspectors during the Convention.

The High School and Public School Inspectors' Sections have prepared programmes of work of an appropriate character.

Any member of the Association may propose other subjects for discussion, which, if approved by the Board of Directors, will be introduced to the Association, with the understanding that the proposer lead off in the discussion.

The Board of Directors earnestly hope that Local Associations will be represented by Delegates at the ensuing Convention, as provided for by the Constitution.

J. A. MCLLELLAN, M.A., *President.*  
 JAMES HUGHES, *Secretary.*

**ANNUAL MEETING OF THE EDUCATION SOCIETY OF EASTERN ONTARIO,**

TO BE HELD IN THE NORMAL SCHOOL, OTTAWA, JULY 30, JULY 31 AND AUGUST 1ST, 1879.

**PROGRAMME.**

*Wednesday, July 30th.*

- 5-6 p.m.—Formal Business.  
 7.30 p.m.—President's Inaugural Address.  
 Samuel Woods, M.A., Kingston.

*Thursday, July 31st.*

- 9-10.30 a.m.—Entrance Examinations and High Schools.  
 J. C. Glashan, I.P.S., Ottawa.  
 10.30-12.30 a.m.—Position of the Model School in our Educational System.  
 A. C. Osborne, Napanee Model School.  
 W. E. Sprague, Cobourg do.  
 2-3.30 p.m.—Intermediate Examinations and High Schools.  
 P. C. McGregor, B.A., Almonte High School.  
 3.30-5 p.m.—Theory of Education as affected by Modern Advances in Knowledge.  
 Rev. J. May, M.A., I.P.S., Carleton County.  
 5-6 p.m.—Music in Schools.  
 W. G. Workman, Music Inst. Ottawa Normal School.  
 7.30 p.m.—Public Lecture—"The Arthurian Legends."  
 W. R. Riddell, B.A., LL.B., Ottawa Normal School.

*Friday, August 1st.*

- 9-10.30 a.m.—Influence of Teachers in Training on Model School Pupils.  
 W. J. Summerby, Kingston Model School.  
 10.30-12 m.—Election of Officers, &c.  
 2-4 p.m.—Science in High Schools.  
 A. P. Coleman, B.A., Collegiate Institute, Cobourg.  
 4-6 p.m.—Influence of Model Schools on Public Schools of County.  
 T. O. Steele, I.P.S., Prescott County.  
 7.80 p.m.—Public Lecture—"Psychology in its Relation to Education."  
 Rev. Prof. Young, M.A., University College, Toronto.

S. Woods, *President.*  
 J. MacMILLAN, *Corresponding Sec.*

## INTERNATIONAL NORMAL EDUCATIONAL CONFERENCE.

UNDER THE AUSPICES OF THE THOUSAND ISLAND PARK ASSOCIATION.

Subjects to be presented :

I. (1) "Industrial Drawing and how Regular Teachers can Teach it;" (2) "The Kindergarten in Relation to the Public School." These will be presented by James Hughes, Inspector of Public Schools, Toronto.

II. "The Ethics of Humor," by Mr. C. W. Bardeen, A.M., editor of "The School Bulletin," Syracuse, N.Y.

III. "Philosophy of Education." This subject will be very elaborately expounded by Malcolm McVicar, A.M., Ph.D., LL.D., Principal of the State Normal and Training School, Potsdam, N.Y. He will give one lecture daily during the week, and will be aided in the presentation by a committee of educators of his own selecting, among whom is Prof. Herman Krusi, M.A., Instructor of Geometry, History, and Philosophy of Education in the State Normal School at Oswego, N. Y.

IV. Some theme to be selected and presented by Dr. H. B. Wilbur, M.D., Superintendent of the Asylum for Idiots, Syracuse, N. Y.

V. "Importance of Drawing, as an Element of Education, and as an Aid to the Development and Training of the Mind," by Edward C. Cleaves, B.S., Assistant Professor of Free-Hand Drawing and of Mechanical Draughting, in Cornell University, Ithaca, N.Y.

VI. "On the Modes of Teaching Drawing in the Normal and Training Schools of the State of New York," by M. M. Maycock, B. P., Instructor of Drawing in the State Normal and Training School at Buffalo, N. Y. Prof. Maycock will present his subject in a series of exercises, extending daily through the week.

VII. (1) "Training of Teachers;" (2) "Science of Teaching." These will be discussed by Hon. G. W. Ross, M.P., Public School Inspector, Strathroy.

VIII. (1) "Higher Education in its Relation to the State;" (2) "Object Lessons;" by Mr. Samson Paul Robins, Inspector of Protestant Schools, Montreal, Canada.

IX. "What is the Use of Studying Latin and Greek?" Treated from the standpoint of intellectual growth, by Prof. E. J. Peck, Principal, and Instructor of Latin and Greek, in the Public School, Homer, N. Y.

X. "The Training Schools in Connection with the Normal School," by Thomas Hunter, Ph.D., Principal of the Normal College, New York City.

XI. Either "Higher Education," or "Relations of Education to Civilization," by Erastus O. Haven, D.D., LL.D., Chancellor of Syracuse University, Syracuse, N. Y.

XII. (1) "How to Teach Algebra;" (2) Some subject in Psychology. These will be presented by J. A. McLellan, M.A., LL.D., Senior High School Inspector, President of Ontario Teachers' Association.

XIII. "On the Psychological Growth and Habits to be attained by Studying Science, and the Modes to be pursued in securing it to the classes taught." This examination will be conducted by the several Professors who occupy the chairs of science in the Normal Schools of this State, viz.: Prof. Thos. B. Stowell, M.A., of Cortland; Prof. Jerome Allen, M.A., of Genesee, and editor of "Barnes' Educational Monthly;" Prof. J. S. St. John, M.A., Albany; Prof. Warren Mann, M.A., Potsdam; Prof. C. A. Babcock, M.A., Fredonia; Prof. W. F. Lannon, M.A., Brockport. It is expected also that the examination will be participated in by Prof. D. S. Kellicott, Ph.B., of the State Normal School at Buffalo; by Prof. H. H. Straight, M.A., of the Normal School at Oswego; and by Prof. Edwin H. Day, M.A., of the Normal College, New York.

XIV. "The Aesthetic Influence of the School Room," by J. A. MacCabe, M.A., Principal of the Normal School, Ontario; author of MacCabe's English Grammar, etc.

XV. "Methods of Teaching Latin and Greek," by Prof. F. B. Palmer, M.A., Principal of the State Normal and Training School, Fredonia, N. Y.

XVI. A lecture is expected from Principal McVicar, LL.D., of the Presbyterian College, Montreal, Province of Quebec. At this date (May 23, 1879,) it is not definitely settled that he will be present. Due announcement will be made if Rev. Dr. McVicar accepts the invitation.

XVII. A lecture on "The Separate School System of Ontario" will be given by Rev. Father M. Stafford. He is the P. P. of Lindsay, Ontario.

XVIII. Prof. H. C. Camp, of 805 Broadway, New York, will be present to assume charge of the music during the session.

XIX. The Conductor will lecture, at some time during the session, upon "The Province of Methods of Teaching."

J. H. Hoose,  
Conductor.

See page 145.

## Contributions and Correspondence.

## PHYSICAL EDUCATION.

BY MISS SMITH, TRACADIE, N.B.

## II.

Necessity for suitable clothing.

It is a little humiliating to admit that the excess of folly lies with the weaker sex, yet I am obliged to acknowledge that the want indicated, under this head, affects most fatally the female portion of our schools and of the country.

Since the day the apple was eaten in the Garden of Eden I believe no one, excepting perhaps Carlyle, has with impunity meddled with the subject of clothing, which has been and still is under the absolute sway of fashion, whose dictates I am sorry to say do sometimes appear strongly opposed to the sensations of comfort, to the conditions of physical health, and to the teachings of common sense.

It is true that a protest against the rule or misrule of the despotic Goddess has been entered, and an intention to limit her wide-spread influence has been manifested in the cry for Dress Reform which has arisen, in the distance, and the echo of which has been borne to us on the western wind; but Mrs. Grundy, with elevated nose and compressed lips, has with a wave of the hand, haughtily consigned the rioters to the Chamber of Horrors set apart for strong minded women who vociferously contend for universal suffrage, from the manly indulgence in a cigar, to the privilege of gracing the Presidential Chair.

Now, I should like to believe that a woman may have a full conviction that the ship of State is safe with the Lords of Creation in command, may have no yearnings towards the ballot-box, and yet may have an instinctive desire to preserve, at least, such physical health as shall save the expense of a physician's fees, and insure a certain amount of personal comfort, which cannot be realized if she yield unquestioning obedience to the commands of fashion.

Hitherto, retrenchment has appeared to be the governing principle in the economy of dress; hence we see hands encased in gloves that were only induced to go on after hours of patient persuasion, boots smaller than the feet they cover, and the wearing of which involves an intensity of suffering sufficient to distract the attention of the greatest enthusiast from the consideration of his pet subject—a suffering that overcomes all impressions of the good and the beautiful, and leaves only a sense of the sadness and the misery of human life. But it is useless to harrow your feelings by a repetition of well-remembered sensations, as there are few people who have not at some period of their lives been willing martyrs to tight boots.

And last, though by no means least, we see the chests and waists of women encased in bodices which, upon measurement, may be found to be several inches less than the actual dimensions they enclose.

As an illustration of the compressibility of matter the use of the strait-jacket is excellent, but as the habitual wearing of it involves the displacement of the vital organs of the body, and renders exertion of any kind, even that of breathing, painful, preventing any-

thing more than surface breathing from the top of the lungs, it must be considered directly opposed to the laws of comfort and health.

In the length of time that the victims continue to endure the ills resulting from this system of dress we have conclusive evidence of the truth of that proposition: "There is a sight of wear in human nature."

Until very recently, a teacher must be possessed of more than ordinary courage who would venture to suggest to his pupils, that a forcible compression of any part of the body is in opposition to the laws of natural development; that woollen stockings are more healthful than cotton, though they make the feet look larger, and possibly involve the necessity of larger shoes; that flannel garments, during the greater part of the year, are much superior to either cotton or linen; that children, as well as grown people, may generally, with impunity, brave cold or storm if the feet are protected and the body and throat properly covered with warm wrappings; and that insufficient clothing, tight gloves, tight boots, and tight bodices are abominations, the results of which are dwarfed bodies, impaired vitality, and weak intellects to the people of America.

So universal has been the devotion to the beauty supposed to result from the style of dress mentioned, that one is not surprised to see that however much they may condemn the pinched feet, the halting gait, the hollow chest, the faded cheek, the drooping head, the elevated shoulders, and, worse than all, the wasp waists which characterize the female portion of almost every locality, the majority of teachers have not only witnessed without a protest the slaughter of the innocents, but have themselves joined the ranks of votaries, and, without a murmur, immolated themselves upon the altar of the Goddess of Fashion.

But now that our attention has been turned to this subject, and we realize that we are in a measure morally responsible for the physical health of our pupils, we hope for better things, and I believe we may also hope to hear of fewer teachers breaking down after two or three years of service, and either being obliged to cease from labor or compelled to drag out an existence which has all the misery of death without its release.

In order to develop a knowledge of the conditions of health, I think we must first teach the pupil that he has a *body*. There are spiritual advisers and mental instructors, but very few teachers of physiology.

The spiritual teachers instruct the pupil that he has a soul, and sometimes they attempt to explain to him a good deal about the *vile dust* of the earthly frame, which is for a season its habitation. They warn him against carnal appetites, and strive to impress him with a sense of the sinfulness of thinking too much about the adornment, the comforts, or even the necessities of perishable matter.

The Mentors, whose sole duty it is to develop the faculties of the mind, to cultivate intellect, urge upon him the necessity of continually exercising and strengthening the faculties which go to make up that intellect, but they do not mention any connection between it and the body, which would appear to be, by the merest accident, the habitation of the mind—a something *with* it, but not *of* it. The pupil himself may possibly infer a close connection between mind and matter from a lively consciousness of the impression that may be effected upon at least one faculty of the mind, through the medium of a birch rod, operating actively upon the muscular integuments.

It is our work to instruct the pupil in the laws underlying his physical organization, and to lead him to see that mind and matter are inseparable, and if we abuse one the other must suffer; that as steam is the result of the combined action of air, fire, and

water, so a vigorous mind is the result of the healthy action of the organs of the physical system; and that a wilful waste of physical power will not fail to produce a woful want of mental force. That the perfect education consists in the development of the powers of the hand, the head, and the heart; which implies the cultivation of the physical, the mental and the moral natures, and that the results are the three essential principles of the perfect life, strength, wisdom and love.

In order to secure an appreciation of the conditions of physical health in the minds of our pupils, we are generally told that, to make any teaching effective, the teacher must practise what he preaches, and must favor the pupil with quite as much example as precept. I think in this subject as well as any other he must be in earnest. It would be hardly possible to impress a pupil with a sense of the importance of cleanliness and tidiness if the teacher habitually presented himself in an untidy dress, with soiled collar and cuffs, a paper in his mouth, while he punctuated his paragraphs by copious and skilful ejections of saliva to the right and left of his desk. Nor would he be very apt to convince him of the saving qualities of pure air if he left the ventilating registers closed for weeks at a time, or failing these, if he neglected opening windows and doors, and, if he added, during at least half of the day, to the already objectionable atmosphere, the fumes of tobacco.

Now, I am sensible that a teacher, be he ever so earnest and enthusiastic, sometimes secures little or no appreciation, or else that a consideration the very reverse of what he intended is awarded him, for unfortunately there are parents who endure the very erratic notions (as they consider them) of the teacher only under protest, and would upon no account allow them to have weight in the regulations of home government. Therefore, however persuasive he may be in his invitations to others to mount and ride his favorite hobbies, he often receives a decided refusal; or if they accept he has never the satisfaction of seeing his hobby-horse exhibit his best points, as the rider holds the reins in fear and trembling, and will only consent to be carried at the slowest pace.

At the time that Professor Monroe made his first visit to the Province, when, I believe, the subject of physical culture was first brought under the notice of the teachers of public schools, I was so fortunate as to share in the three days' instructions that were given in the Mechanics' Institute in St. John, and I think there could scarcely be a more thorough convert to any teachings than I was to his. I determined to convince others as I had been convinced, and to that end began operations at once. That year I removed to a school in Duke-street, St. John, and had given instructions in the vocal and physical exercises with considerable delight to myself and considerable amusement to my pupils, when on the last afternoon of the first week my school-room was invaded by an irate mother, who had been informed of my doings by her offspring, five of whom graced my classes. She furiously demanded my reasons for marring the countenances of her children, exclaiming vehemently: "The Lord knows my children's mouths are ugly enough naturally (which was true), and here are you come to make them ten times worse." I tried to convince her that my intention was not malicious but she refused to listen to reason, declaring that she would have a stop put to such work or she would make the trustees shake in their shoes, and she took her departure in a state of excitement somewhat resembling that of an anxious hen when she believes that a hovering hawk has intentions in regard to her brood. Failing to receive from the trustees the sympathy her case warranted, she next addressed a letter to the Lieutenant Governor, setting forth the double names of her five hopefuls, together with a statement of the indignities to which

they had been subjected, and closing with an insinuation regarding his fitness to fill the elevated position to which he had been appointed unless he met her views upon the subject under consideration. His Honor, not very clearly comprehending what was required of him, forwarded the epistle to the trustees in St. John, who preserved it until the fire of June, 1877, when I presume it met the fate of other valuable documents. At another time, when I was attempting to secure an appreciation of the benefit to be derived from the practice of the physical and vocal exercises prescribed in Mouroe's Manual, my intentions were frustrated by the impression getting abroad that I was an emissary in the employ of a sect called Macdonaldites, familiarly known as *Jerkers*, and was instilling the doctrines of their religion by means of bodily and facial contortions. And again, when I was trying to develop an increased volume of voice in my school, I was accredited with the power to recall the shades of those who had gone before, by means of the human sounds that were said to issue from my sanctum, and somewhat to my embarrassment, appreciative though slightly horror-stricken audiences were not unfrequently found outside the windows. And, only a short time ago, when I was striving to develop an admiration for a pleasant tone of voice, I was one evening waited upon by my head pupil, a man of nearly thirty years, who rejoiced in the harshest tones it has ever been my privilege to endure, and who informed me in a patronizing sort of way, that "he did not wish to find fault or make a fuss, and he didn't believe that I meant any harm, in fact he believed that my intentions were good, but he couldn't stand all that nonsense about a pleasant voice. People liked him, voice and all, just about as well as he wanted. He reckoned his voice would never get him a living anyway, so if I would just help him through the severe words in the reading lessons he would be much obliged, and he would feel that he was doing something with some sense to it." I did not suggest that a cultured tone of voice would be more of an ornament than the very elaborate pin in his tie. In fact, I didn't suggest anything. Not being able to do what I *would*, I contented myself with doing what I *could*. I helped him through the severe words.

But failures in our attempts are not always to be classed among the ills of life, and from those I have mentioned, I have, I think, learned several lessons, viz., the necessity of tempering enthusiasm with judgment, the necessity of patience at all times, and the necessity of at all times entertaining very moderate expectations of success in every undertaking. There are cases where, do what we will, we cannot gain the appreciation we desire, and in such cases I would suggest that we do what we can, not what we ought, trusting and believing that the "bread cast upon the waters will be found after many days."

### THE TRUE AIM OF EDUCATION.

BY MARY HELEN LORING, FREDERICTON.

We should always try to keep in view the highest aim of education; but, in our school work, too many of us ignore or forget this aim altogether; and instead of using our energies to develop those under our charge, into men and women of strong moral, mental and physical capacity, we merely burden their memories with facts and convert them into vessels into which we may cram knowledge, but which are incapable of putting forth efforts to draw anything in of themselves.

Many eminent and deep thinking persons have dealt with this subject, but in spite of all that has been said regarding it, the evil still remains.

In all ages, education has been defective, else we would have a larger list of geniuses, and would not have been forced to regard Copernicus, Gallileo, Euclid, Shakespere, Newton, Milton, and many others of many different ages, as intellectual giants instead of "ordinary mortals."

Enter many of our schools and examine an advanced class, one, perhaps, the members of which pride themselves upon having learned logarithms, and who know something of Algebra and Geometry. They may be able to repeat very glibly any rule of arithmetic, and solve questions to which a direct application of the rule may be made; but give them a question a little obscure, one which requires the exercise of reason, not the application of a stereotyped rule, and you have made the true test of the correctness of their reasoning powers; perhaps one out of a class of fifteen or twenty will solve the question, and perhaps the greater portion of the class will stare stupidly, and be unable to make the first step towards a solution.

Where does the fault lie? In the teaching, without a doubt. Rules have been learned, and questions taken, which exemplify the rule given; instead of giving questions to be reasoned out, and requiring rules as an exercise in language; enabling the pupil to state in concise form the process by which the solution was arrived at. In some cases the pupil is taught only those subjects which the parents consider will be of service to him; but where development is made the chief object, the practical education of the pupil will be found more thorough than if it had been the only object in view.

We may tell our pupils that a train running towards the poles, at a certain rate, would run off on the eastern side of the track, while one approaching the equator would leave the track on the opposite side, and that this is owing to the earth's rotary motion from west to east. Parents and visitors, at an examination, may be delighted with the wonderful proficiency of the pupils in their studies, while they are only judging by the ability of the pupils to repeat facts, similar to the one above-mentioned. Are these facts of any educational value? Not much. All knowledge should form a continuous chain. If a teacher communicates a fact which does not follow from something which went before, and which does not form a stepping stone to something to follow it, he has thrown in a broken link, a fact which burdens the memory without strengthening the intellect.

If every teacher would consider this matter, there would be fewer people following the opinion of others, and more who would think for themselves in the rising generation, than in the present or any preceding one.

The first step should be for teachers to attend to their own education, and be sure that they understand a subject before they undertake to teach it to others. Then, knowledge should never be brought to our pupils, but they should be led to seek it; and in all cases the understanding should be brought into play before the memory.

The mere statement of the above-mentioned fact illustrates mere memory knowledge, for the pupil may forget on which side the train would run off, and he has no means of finding out for himself. Now, if he had thoroughly understood the matter, he need not burden his memory with the fact at all, for the real state of affairs would appear from the careful consideration of a few minutes.

I am afraid that, in many of our schools, the pupils learn tasks which convey to their minds no meaning at all, or a very erroneous one, if any.

PRACTICAL EDUCATION IN RURAL SCHOOLS.

Mr. EDITOR,—In teaching Geography, do we not descend too much to a detailed and particular knowledge of the names of places. I once met a teacher who told me that his scholars could tell all the principal towns of Europe and their distance from the Metropolis, meaning the City of London. Another, that his scholars knew all the bays and capes around that little crooked peninsula down at Halifax, and perhaps one could be found whose scholars could enumerate all the townships in the Province of Ontario. Is it not enough for a pupil to have a general knowledge of the Dominion at large, and a minute knowledge of his own Province, including the county and county towns, and the townships of his own county? Some teachers teach the counties of Quebec, New Brunswick and Nova Scotia, and even of Great Britain and Ireland. Is this necessary? is it desirable?

Again, I would ask are we practical enough in the teaching of Arithmetic? I think we are not. Indeed, it is difficult to be so under the present state of things. Look at our authorized Elementary Arithmetic; fractions almost from the beginning to the end. Who does not know what a practical and elementary exercise the 32nd is? How a book like this can be called an Elementary Arithmetic, is a matter of astonishment. I suppose that it was considered that all our young Canadians were going to be bankers, stock-brokers or philosophers; and that their elementary training should commence upon these things. The fault is not in keeping up such a high standard of Arithmetic for those who have the time and ability, but in forcing this unpractical work into our Public Schools, to the detriment of many of our pupils who will never have the time nor the opportunity to make use of it. Our great aim should be especially in schools in the rural districts, to teach what is likely to be practically useful to the great bulk of our schools. Now the fact is, in rural schools the teacher who wishes to fit his scholars for the ordinary business of life has to leave the book and invent such questions as the price of a load of grain, or a pile of lumber, or a stick of timber, or a patch of land.

We are set to teach and to train all our scholars as if they were designed for the High School, the College, or the University; aiming at fitting them for College and high life, while we are in a measure unfitting them for the ordinary walks of life, that most of them will inevitably have to follow.

Our Public School education should be finished and complete in itself. The higher schools and professions have their curriculum; doctors, lawyers, and teachers all have a standard by which to judge whether or not they are fit for the business of life. But the farmer's son, where is his curriculum? He may stumble out of school at any moment without his diploma. He may not be fitted even to discharge the ordinary duties of a citizen.

I may here make a remark about the much talked of compulsory clause. If the Government would lay a disability upon every man who did not know how to read and write, by not allowing him to vote at any election, there would not be many in one year who would not know how to do both. If the young men and women were not allowed to marry until they could sign their own names and read the Government proclamations, such a disability would be better than all the compulsory clauses on the statute book.

Yours truly, R. LEGATE.

COLLECTION OF SCHOOL RATES UNDER THE NEW ACT.

To the Editor of the Canada School Journal.

SIR,—Since 1850 Rural School Trustees have had the right to collect school rates by warrant under their own hand and seal, or, at their option, to apply to a Township Council to do so for them. As a general rule they performed this duty themselves.

From 1850 to 1871, the only restriction imposed upon trustees (as to the collection of school moneys) was, that at the annual school meeting they had formally to submit the question to the election, as to how the necessary moneys for "current expenses" of the year should be raised—whether by "rate bill" upon parents or by "school rate" upon property. The same question had also to be proposed by them in regard to all expenditures on "capital account." This was usually done at a special school meeting called for that purpose; but the question submitted was generally varied from that proposed in regard to "current expenses." It was as to whether the money required for expenditure on "capital

account" should be raised by loan, or by rate upon property. The rate bill plan was rarely proposed for such expenditure, as it would either prove very burdensome upon parents, or be entirely inadequate. In case a loan was decided upon, the trustees were required to apply to the Township Council for authority to effect the loan upon the credit of township debentures issued by the Council. When a rate on property was authorized by the school meeting the trustees generally placed its collection in the hands of the Council.

In 1871, Free Schools were established; compulsory education in a restricted form was authorized, and the trustees were in consequence required "to provide suitable accommodation" for the school children in their section or division. The whole subject of raising moneys for all purposes, moreover, was left in their hands, as the elected school representatives of the ratepayers, so that they could have no excuse for neglecting to see that facilities were duly provided for the education of all the children of school age under their jurisdiction.

I have in a late publication\* pointed out all of the recent changes in the "Revised School Law." In it I have also fully explained, among other things, the effect of the alteration in the law relating to the collection of school rates in the rural sections. In this communication, these changes may be briefly summarized as follows:

I.—IN REGARD TO RURAL SCHOOLS.

1. *Current Expenses.*—All rates for the current expenses of a school section must now be raised by the Township Council alone, upon the estimate and requisition of the trustees. The assent of a school meeting is not necessary to this levy.

2. *Capital account.*—All expenditure on capital account (and the nature of it) must be authorized by the ratepayers. Having obtained that assent, the Township Council can be compelled to levy the necessary rate, upon the requisition of the trustees.

II.—SCHOOLS IN CITIES, TOWNS, AND VILLAGES.

From 1850 to 1879, Municipal Councils in cities, towns, and villages were required to raise rates for all school purposes upon the estimate and requisition of the trustees. The law is unaltered in regard to rates for "current expenditure;" but, under the Act of 1879, the Council can, by a two-thirds vote, decline to levy rates for expenditure on "capital account." In such a case, however, the Council can be compelled by the trustees to submit a by-law on the subject for the concurrence of the ratepayers, and be governed accordingly.

Toronto, May, 1879.

J. GEORGE HODGINS.

\* Explanatory Notes on the Changes in the "Revised School Law," caused by the Supplementary School Act of 1879, by J. George Hodgins, M.L.D. Price 25 cents. Copp, Clark & Co. and Adam Miller & Co., Toronto.

Mathematical Department.

Communications intended for this part of the JOURNAL should be on separate sheets, written on only one side, and properly paged to prevent mistakes. They must be received on or before the 20th of the month to secure notice in the succeeding issue.

ALFRED BAKER, M.A., EDITOR.

SOLUTIONS OF PROBLEMS IN MAY NUMBER.

1.  $a + b = -\frac{q}{p}, ab = \frac{r}{p}$ . Equation is  $(x - \frac{1}{a})(x - \frac{1}{b}) = 0$ ,

or  $x^2 - \frac{a+b}{ab}x + \frac{1}{ab} = 0$ ,

or  $x^2 - \frac{-\frac{q}{p}}{\frac{r}{p}}x + \frac{1}{\frac{r}{p}} = 0$ , or  $rx^2 + qx + p = 0$ .

2.  $a + b = -\frac{1}{m}, ab = \frac{n}{m}; \therefore (1 + \frac{a}{b})(1 + \frac{b}{a}) = 1 + \frac{a^2 + b^2}{ab}$

$+ 1 = 2 + \frac{(a+b)^2 - 2ab}{ab} = \frac{(a+b)^2}{ab} = \frac{1}{\frac{n}{m}} = \frac{1}{mn}$ .

3.  $a + b = -\frac{q}{p}, ab = \frac{r}{p}$ . Equation is  $(x - \frac{a^3}{b^2})(x - \frac{b^3}{a^2})$

= 0, or  $x^2 - \frac{a^4 + b^4}{a^2 b^2} x + ab = 0$ .

Now  $a^4 + b^4 = (a + b)(a^4 - a^3 b + a^2 b^2 - ab^3 + b^4) = (a + b)\{a^4 + ab + b^4\}$ ,  $(a^3 - ab + b^2) - ab(a^3 + b^3) = (a + b)\{ (a + b)^3 - 3ab\} - ab\{(a + b)^3 - 2ab\} = (a + b)\{(a + b)^4 - 5ab(a + b)^3 + 5a^2 b^2\} = -\frac{q^5}{p^5} + 5\frac{r}{p} \cdot \frac{q^3}{p^3} - 5\frac{r^2}{q^2} \cdot \frac{q}{p}$ .  $\therefore$  equation becomes  $x^2 + \frac{q^5 - 5prq^3 + p^2qr^2}{p^5} x + \frac{p^2}{r^2} x + \frac{r}{p} = 0$ , or  $p^3 r^2 x^3 + (5p^2 q r^2 - 5p q^3 r + q^5) x + p^2 r^3 = 0$ . (There was an error in the question,  $x - q^6$  should have been  $q^5$ ).

4.  $a + b = -p, ab = q; \therefore a^2 - 2ab + b^2 = p^2 - 4q$ , or  $a - b = \pm \sqrt{p^2 - 4q}$ . The equations required are  $x^2 + (b - a)x - ab = 0$ , and  $x^2 + (a - b)x - ab = 0$ . They are both expressed by  $x^2 \pm \sqrt{p^2 - 4q} x - q = 0$ , whether  $\pm$  is to be taken for  $b - a$  or  $a - b$  being determined by the signs and magnitudes of  $a$  and  $b$ . Multiplying these equations we obtain  $x^4 + (2q - p^2)x^2 + q^2 = 0$  as the equation whose roots are  $a, -b, -a, b$ , a result which may also be obtained by forming the equation whose roots are  $\pm a, \pm b$ , i. e., by multiplying together  $x - a, x + a, x - b, x + b$ , putting the result equal 0 and substituting for  $a$  and  $b$  in terms of  $p$  and  $q$ .

5. If  $a, b$  be the roots,  $a + b = m + n, 2ab = m^2 + n^2$ . The equation required is  $\{x - (a + b)\}^2 \{x - (a - b)\}^2 = 0$ , or  $x^2 - 2(a^2 + b^2)x + a^4 - 2a^2 b^2 + b^4 = 0$ , or  $x^2 - 2\{(a + b)^2 - 2ab\}x + \{(a + b)^2 - 2ab\}^2 - 4a^2 b^2 = 0$ , or  $x^2 - 2\{(m + n)^2 - (m^2 + n^2)\}x + \{(m + n)^2 - (m^2 + n^2)\}^2 - (m^2 + n^2)^2 = 0$ , or  $x^2 - 4mnx - (m^2 - n^2)^2 = 0$ .

6. Roots of  $x^2 + rx + \frac{r}{16} r^2 = 0$  are  $-\frac{r}{4}, -\frac{3r}{4}; \therefore a^3 + b^3 = -\frac{7}{16} r^3, a^3 - b^3 = \pm \frac{13r^3}{32}$ , + or - accord. as  $a = -\frac{r}{4}$  or  $-\frac{3r}{4}$ . Hence required equation is  $(x + \frac{7}{16} r^3)(x \mp \frac{13}{32} r^3) = 0$ .

7.  $a + b = -p, ab = q, a + c = -r, ac = s$ .  
(1)  $\therefore 2a + b + c = -p - r, a(b + c) = q + s$ . Substituting for  $a$  in the former from the latter  $(b + c)^2 + (p + r)(b + c) + 2(q + s) = 0; \therefore b + c$  is a root of  $x^2 + (p + r)x + 2(q + s) = 0$ .  
(2) Also  $a^2 + (b + c)a + bc = pr, a^2 bc = qs$ . Substituting for  $a^2$  in the former from the latter, and remembering that  $(b + c)a = q + s$ , we have  $b^2 c^2 + (q + s - pr)bc + qs = 0; \therefore bc$  is a root of  $x^2 + (q + s - pr)x + qs = 0$ .

In the six following problems we have  
 $a + b + c = -p,$   
 $ab + ac + bc = q,$   
 $abc = -r.$

8. Equation required is  $(x - \overline{b + c})(x - \overline{c + a})(x - \overline{a + b}) = 0$ ; or  $(x + p + a)(x + p + b)(x + p + c) = 0$ ; or  $(x + p)^3 + (a + b + c)(x + p)^2 + (ab + ac + bc)(x + p) + abc = 0$ , or  $(x + p)^3 - p(x + p)^2 + q(x + p) - r = 0$ , or  $x^3 + 2px^2 + (p^2 + q)x + pq - r = 0$ .

9. Equation required is  $(x - \frac{1}{b + c}) \dots = 0$ , or  $(x - \frac{1}{a + b + c - a}) \dots = 0$ , or  $(x + \frac{1}{p + a}) \dots = 0$ , or  $(px + 1 + ax)(px + 1 + bx)(px + 1 + cx) = 0$ , or  $(px + 1)^3 + x(a + b + c)(px + 1)^2 + x^3(ab + ac + bc)(px + 1) + abc x^3 = 0$ , or  $(pq - r)x^3 + (p^2 + q)x^2 + 2px + 1 = 0$ , a result that might have been obtained from the equation of the previous example by remembering that the roots in this are the reciprocals of the roots in it, and therefore writing  $\frac{1}{x}$  for  $x$ .

10. Equation required is  $(x - \frac{a}{bc}) \dots = 0$ , or  $(x - \frac{a^3}{abc}) \dots = 0$ , or  $(x + \frac{a^2}{r}) \dots = 0$ , or  $r^2 x^3 + (a^2 + b^2 + c^2) r^2 x^2 + (a^2 b^2 + a^2 c^2 + b^2 c^2) r x + a^2 b^2 c^2 = 0$ . But  $a^2 + b^2 + c^2 = p^2 - 2q$ , and  $a^2 b^2 + a^2 c^2 + b^2 c^2 = q^2 - 2pr$ . (Ex. 2, May No.) Therefore equation becomes  $r^2 x^3 + (p^2 - 2q) r^2 x^2 + (q^2 - 2pr) r x + r^2 = 0$ .

11. Equation required is  $(x - b^2 c^2) \dots = 0$ , or  $x^3 - (a^2 b^2 + a^2 c^2 + b^2 c^2) x^2 + a^2 b^2 c^2 (a^2 + b^2 + c^2) x + a^4 b^4 c^4 = 0$ , or  $x^3 - (q^2 - 2pr)x^2 + r^2(p^2 - 2q)x + r^4 = 0$ .

12. Equation required is  $\{x - \frac{1}{2}(b + c - a)\} \dots = 0$ , or  $\{x - \frac{1}{2}(a + b + c - 2a)\} \dots = 0$ , or  $\{(x + \frac{1}{2}p) + a\} \dots = 0$ , or  $(x + \frac{1}{2}p)^3 + (a + b + c)(x + \frac{1}{2}p)^2 + (ab + ac + bc)(x + \frac{1}{2}p) + abc$ , or  $(x + \frac{1}{2}p)^3 - p(x + \frac{1}{2}p)^2 + q(x + \frac{1}{2}p) - r = 0$ , or  $x^3 + \frac{1}{2}p x^2 + (q - \frac{1}{2}p^2)x - \frac{1}{8}p^3 + \frac{1}{2}pq - r = 0$ .

13. Equation required is  $(x - \frac{abc + 1}{a}) \dots = 0$ , or  $(ax + r - 1) \dots = 0$ , or  $abcx^3 + (ab + ac + bc)(r - 1)x^2 + (a + b + c)(r - 1)^2 x + (r - 1)^3 = 0$ , or  $-rx^3 + q(r - 1)x^2 - p(r - 1)^2 x + (r - 1)^3 = 0$ .

14. We shall suppose that the money is borrowed at the beginning of the year at the end of which the taxes are collected, so that the tax raised each year (in addition to the sinking fund) has to provide for two semi-annual payments of interest, one of which was made six months before this tax was collected. The money added to the sinking fund we shall suppose to be compounded half-yearly. For simplicity, let us keep the interest fund and sinking fund separate. \$350 is paid each half-year, and to provide for this we must have at the end of the year \$700 + int. on \$350 for half a year, i. e., \$712.25.

We have next to find the amount to be paid annually into the sinking fund that at the end of 10 years we may have \$10,000, remembering that this money is compounded half-yearly. Let  $x$  be this amount, then

$$10000 = x(1.035)^{18} + x(1.035)^{16} + \dots + x(1.035)^2 + x$$

$$= x \frac{(1.035)^{20} - 1}{(1.035)^2 - 1};$$

$$\therefore x = 10000 \frac{(1.035)^2 - 1}{(1.035)^{20} - 1} = 10000 \frac{1.07122 - 1}{1.98978 - 1} = \frac{712.2}{.98978} = \$719.55.$$

$\therefore$  total amt. to be raised annually = \$712.25 + \$719.55 = \$1431.80, Ans.

15. Eliminating  $y$ , we have the equation  $x^4 - 14x^2 + x + 38 = 0$ , of which  $x - 2$  is a factor, and  $\therefore x = 2$  is a root. The same result may be more legitimately arrived at by using Newton's method of finding the commensurable roots. Thus  $x = 2, y = 3$  is one solution. The other roots are all possible, but incommensurable. By using Horner's method they will be found to be, approximately,

$$x = 3.18 \quad x = -1.84 \quad x = 3.28$$

$$y = -2.79 \quad y = 3.61 \quad y = -3.75$$

Messrs. John Anderson of Wingham, and A. Graham, of Campbellford, gave the first of these solutions, having obtained it by factoring.

16. The following is by S. of Woodstock:  
N.B. Construct a triangle  $ABC$  whose sides shall equal the respective distances, and on its shortest side  $AC$  describe an equilateral triangle  $ADC$ . Join  $DB$ . On  $DB$  describe an equilateral triangle  $EDB$ . Then  $EA = BC$ , and  $AD = AC$ ; and  $EDB$  is the triangle required. The following proof has also been given without name:

17. We shall first give a construction for the following: To find the locus of a point from which lines are drawn to the extremities of a given line are in a given constant ratio. Let  $AB$  be the given straight line. Divide it in  $C$  in the given ratio, and on it as chord construct any circle. Bisect  $AB$  in  $E$ ; draw  $ED$  perpendicular to  $AB$  to meet the circle in  $D$ . Join  $DC$  and produce it to meet the circle again in  $F$ . Then, since angle  $AFD = \text{angle } BFD$ ,  $AF$  is to  $FB$  as  $AC$  is to  $CB$ , and  $F$  is a point in the required locus. Similarly by taking points  $G, H$  in  $DE$ , and producing  $GC, HC$  to  $K, L$ , so that the rectangle  $GC, CK$ , and also the rectangle  $H, L, CL$  are equal to the rectangle  $AC, CB$ , the points  $K$  and  $L$  are points in the required locus. Now, since a circle may be described to pass through  $K, F, G, D$  (since rectangle  $KC, CG = \text{rectangle } FC, CD$ ), the angles  $KFC, CGD$  are equal; and for a similar reason the angles  $KLC, CGH$  are equal. Hence the angles  $KLC, KFC$  are together equal to two right angles, and the circle which passes through  $C, F$  and  $K$  will also pass through  $L$ . Thus the required locus is a circle, and its position is determined by constructing for any three points on the locus, and describing a circle passing through them.

To return to the original problem,—Let  $A, B, C$ , be the three given lines. Take any equilateral triangle  $DEF$ , and by the preceding construct the locus of the point whose distances from  $D$  and  $E$  shall always be in the ratio of  $A$  to  $B$ . Also construct the locus of the point whose distances from  $E$  and  $F$  shall always be in the ratio of  $B$  to  $C$ . Let  $G$  be the point of intersection of these loci; then  $GD, GE, GF$  are as  $A$  to  $B$  to  $C$ , and  $G$  is to the triangle  $DEF$  what the point from which  $A, B, C$  are drawn is to the required triangle. Hence we obtain the required triangle by placing  $A$  and  $B$  inclined to each other at an angle equal to  $DGE$ , and  $B$  and  $C$  inclined to each other at an angle equal to  $EGF$ , and joining the ends of  $A, B$  and  $C$ .

J. W. P.—In giving a construction for this you should have given proof also; although we are of opinion that your construction is wrong.

18. Solution by the proposer, J. W. Place, Augusta: Let the slant side be represented by  $b$ , the diameter of the base by  $c$ , and the height of the vertex of the parabola measured along the slant side by  $x$ . Then it may easily be shown that the ordinate of the parabola  $= \frac{2}{b} \sqrt{bc^2x - c^2x^2}$ ; and the abscissa is  $x$ ; hence its area  $= \frac{2}{3} \times \frac{2}{b} \int_0^x \sqrt{bc^2x - c^2x^2} dx = \frac{4}{3b} \int_0^x \sqrt{bc^2x - c^2x^2} dx$ . Differentiating

this for a maximum, we find that it will be a maximum when  $x = \frac{3}{2}b = 15$  inches, which gives the height of the vertex above the base 12 inches, the result asked for.

SOLUTIONS ASKED FOR.

"Bob" of Yarmouth, N. S., asks for solutions of the following:

(1). What is the length of the longest board 1 ft. wide that can be laid down diagonally in a room 12 ft. by 6 ft.?

(2). Given a fireplace 4 ft. high and 2 ft. deep, what is the length of the longest pole that can be run up the chimney, the plane in which the pole moves to be perpendicular to the plane of the back of the fireplace?

(1). Let  $ABCD$  be the room, and  $EFGH$  the board,  $EF$  being an end. Then if the corners  $E, F$ , both rest against the same side, we evidently do not get the longest board. If  $E$  rests against  $AD$  and  $F$  against  $AB$ , but neither  $G$  nor  $H$  rests against another side of the room, we do not get the longest board. If  $E$  rests against  $AD, F$  against  $AB$ , and  $H$  against  $CD$ , and if  $G$  does not rest against  $BC$  we can evidently increase the length of the board by inclining it towards  $B$ , keeping  $E$  and  $F$  in contact with the sides  $AD, AB$ . These considerations show that we obtain the greatest length when  $E, F, G$  and  $H$  are in contact with  $DA, AB, BC, CD$  respectively. Then the triangles  $AEF, CGH$  are equal, and if  $x$

represent  $AF$  we have  $AE = \sqrt{1-x^2}, ED = 12 - \sqrt{1-x^2}, DC = 6 - x$ ; and  $x$  is determined by observing that the triangles  $FAE, EDH$  are similar. Thence the length of the board is found.

(2). If  $a$  be the length of the pole, the curve which it continually touches as it slides up the chimney is  $x^3 + y^3 = a^3$  (Hemming's Calculus, p. 174), and if this curve passes through the point  $(2, 4)$  we have  $a = \{2^3 + 4^3\}^{\frac{1}{3}}$ , which gives the greatest value of  $a$ ; for if the pole be longer than this it will continually touch a curve which lies outside the curve  $x^3 + y^3 = 2^3 + 4^3$ , and therefore could not pass up the chimney.

"A Subscriber" sends the following for answers:

(1). Can the method laid down in paragraph 95, page 54, of Loudon's Algebra be extended so as to include cases where the divisor contains squares or cubes, as

(a). Show that  $(x^2 - xy + y^2)^3 + (x^2 + xy + y^2)^3$  is divisible by  $2x^2 + 2y^2$ .

(b). Show that  $(ay - bx)^2 + (bz - cy)^2 + (cx - az)^2 + (ax + by + cz)^2$  is divisible by  $a^2 + b^2 + c^2$ , and by  $x^2 + y^2 + z^2$ .

(2). Can the following equation be solved without using Determinants?

$$\left. \begin{aligned} x &= by + cz + du, \\ y &= ax + cz + du, \\ z &= ax + by + du, \\ u &= ax + by + cz, \end{aligned} \right\}$$

(1). It can. Thus, to find the remainder on dividing  $f(x)$  by  $x - px - q$ . Let  $Q$  be the quotient, and  $R$  the remainder, where  $R$  involves no power of  $x$  above the first. Then  $f(x) = Q(x^2 - px - q) + R$ . Now since the sides of this equality are identical, the same operation performed on both sides will produce the same results; thus if, wherever  $x^2$  occurs, we write  $px + q$ , the results from both sides will be the same. On the right side we get for result  $R$  which has not changed during the process, since it does not involve  $x^2$ ; and the same result must have appeared on the left side. Hence we find the value of  $R$  by writing  $px + q$  for  $x^2$  in  $f(x)$ , whenever and as often as  $x^2$  occurs. Thus, find the remainder on dividing  $x^3 - 6x^2 + 4x - 2$  by  $x^2 - x + 1$ . Here for  $x^2$  we shall substitute  $x - 1$ , and we first obtain  $x(x - 1) - 6(x - 1) + 4x - 2$ ; again substituting for  $x^2$  we have  $x - 1 - x - 6(x - 1) + 4x - 2$ , or  $-2x + 3$ , the remainder. The same method holds when the divisor involves powers of  $x$  higher than the second.

(a). Evidently 2 is a divisor. Also putting  $-y^2$  for  $x^2$  we obtain  $(-xy^3) + (xy)^3$ , and this  $= 0$ .

(b). The most convenient way to show this is to expand, and the expression at once assumes the form  $(x^2 + y^2 + z^2)(a^2 + b^2 + c^2)$ .

(2). Certainly, although we can only find the ratios of  $x$  to  $y$  to  $z$  to  $u$ , and a condition must be satisfied that the equations may be simultaneous. Treating the first three equations by the ordinary method for solving simultaneous equations we may find the values of  $\frac{x}{u}, \frac{y}{u}$ , and  $\frac{z}{u}$ , giving the ratios, and, substituting these values in the fourth, we obtain the condition that must be satisfied that the equations may be simultaneous.

A correct solution, to which no name is attached, of the oxen and grass question in the December issue, has been sent in.

J. W. P.—Cannot admit your attempt to solve Prob. 4, March issue. How do you know that  $\frac{BC}{BC} = \frac{PI}{GI}$ , or that  $BC : Bv :: GI : PH$ ?

D. R., Birmingham.—Thanks for your suggestion. We are always very glad to get such.

A. E. T., Teeswater.—Like yourself, we too would be pleased to see a *purely* arithmetical solution of this problem. In reference to your request, curiously enough, we have been intending for some time to give an article on the subject you mention, but it has hitherto been crowded out.

## Practical Department.

### ATTENTION; HOW TO SECURE AND RETAIN IT.—II.

BY JAMES HUGHES.

#### II. THE TEACHER MUST CONTROL HIS CLASS.

It is clear from what has already been said that gaining *control* is a totally different matter from securing *attention*. Attention includes control, however, and it is therefore necessary that a teacher should control his pupils as a basis for obtaining attention from them. This he must do as follows:

1. **By standing or sitting so as to see his whole class.**—If a pupil feels that his teacher's eye is *constantly* and quietly taking note of all that is going on in his class, he cannot fail to be conscious of its controlling power. Unless he is defiant or exceedingly thoughtless he will need little more than the teacher's untiring eye to restrain him. The eye can be cultivated and its range of vision greatly widened. Few teachers have the power to *see* and *watch* every pupil in a class of fifty at the same instant, but every teacher may acquire the ability to do so. It is astonishing to what extent clearness of lateral vision may be developed, without rolling the eyes from side to side. An uneasy, nervous movement of the eyes, or a fixed stare neutralizes the influence they might exert. The seeing should be done without any apparent effort, but it should be done, and done unerringly. Even when using the blackboard the teacher should avoid turning his back to his class.

2. **Inattention must be noticed and checked in time.**—It is an epidemic, which may be easily controlled in its incipient stages. The fire that sweeps away in a breath the proudest structures of a mighty city might have been quenched with a few drops of water. It is madness to allow a wave of disorder to roll on and on until it has engulfed a whole class, and then attempt to break its force by a counter disorder of greater violence. "A stitch in time saves nine" is as true in school as in other places. The inattention of one pupil in a large class, if of such a negative character as not to attract the attention of others, sometimes may be allowed to pass unnoticed. It may cost too much to secure the attention of such a pupil. The whole class may be diverted from the subject under consideration in doing so, and a positive evil substituted for a negative one. The class should not be sacrificed for the individual. He may be informed at the close of the lesson, or before passing to a new line of thought, that his negligence has been noticed. This will soon cure him, and it will at the same time impress the rest of the class with the idea that the teacher regards their attention as of such vital importance as to avoid allowing anything unnecessarily to interrupt it. They will learn the importance of giving attention from his actions and manner more clearly than from his words. But as soon as passive inattention develops into the first symptoms of disorder, action must be taken instantly. How should this action be taken? In the quietest possible manner. The cure of the affected portion should be made without injury to any other part. If the teacher's object is to startle the whole class and completely dissipate their attention from the subject in hand, he should scold the offender or strike the desk, or stamp on the floor, or snappishly demand "attention." If he wishes to gain the attention of

the careless pupil without allowing any one else to know that he has been inattentive, he can usually do so in one of the following ways:

1. By briefly pausing in the lesson.
  2. By a quiet movement of the hand or head.
  3. By a significant glance.
  4. By giving a question to the wandering one.
- With a fair degree of tact the remedy may be applied without loss of time to any but the pupil immediately concerned.

It is very desirable that the class should be saved from interruptions by the teacher himself. The kind of interruptions referred to is the worst possible, for they not only cause loss of time and distraction of attention, but they lead the whole class to believe that inattention is a very common, and therefore not a very grave offence.

3. **By calm, fixed, fearless, determined, patient "will power."** The teacher should have no difficulty in convincing his class that some *one* person must be the controlling power in the management of the school, and that this age, experience and developed force of character eminently fit him for the position of unchallenged leader. His every act, look and tone should clearly indicate decision. He must wear the dignity of his superior position as though it fitted him well. He must understand himself and his subjects. There must be no assumption in his bearing. There is a magnetic force connected with a man who has definiteness of aim and deliberation in action. The will power of such a man is irresistible in its influence over those with whom he comes in contact. This is true even when they are of his own age; it is much more true when they are his juniors. Every teacher should exercise "will power" in relation to his class. It should never be exercised haughtily or tyrannically, but always kindly and naturally. Willfulness and self-will are very different from "will power." "Will power" simply means the ability to proceed undeviatingly to a desired end, and bring others along with you. There are various characteristics which "will power" should possess.

1. *It should be calm.* Obedience on any terms is better than disobedience, but willing obedience must be secured by the teacher if he wishes to benefit his pupils. If "will power" is exerted in a noisy or violent manner it is offensive; if it is of the fussy kind, it excites ridicule. It must be calm if it would secure control, beneath whose placid surface no rebellion lurks in ambush.

2. *It should be fixed.* Some teachers are intermittent in their exercise of "will power." They are fully charged with energy and force one day, but seem to have lost connection with their character batteries on the next. Steady, even, regular, uniform control is the kind required. In the schoolroom and in the yard the teacher's influence should be supreme, whether he himself is present or absent. He must never be a tyrant, he should always be a governor.

3. *It should be fearless.* No one can control a pupil if he fears him, or his parents. The teacher should carefully study his proper social and legal relationship to the pupils, their parents, and the school authorities. He should stand on a foundation of solid rock, and be ready for prompt action in cases of emergency. Promptness and deliberation should go hand in hand. Promptitude and haste or excitement are not synonymous. Hesitation and timidity on the part of a teacher will stir to life germs of rebellion which might have been left to die for lack of nutriment.

4. *It should be determined.* While a teacher should always pay due respect and attention to the advice of his friends, he should never allow either the counsel of friends or the opposition of foes to make him deviate from the course which he knows to be the right and just one. Many men fail because when a wave of op-

position meets them they feebly yield to its power and aimlessly drift with it; when if they had met it bravely and remained firm it would soon have passed them and left them better for its washing. The teacher may yield many times with profit to his school and himself if he does it gracefully, but he can never do so when the question of control is at stake. He must then assert his "will power" in a most determined manner, without making himself offensive or tyrannical.

5. *It must be patient.* This is the greatest requisite. The quality of "will power" is of great importance, the quantity of it at a teacher's disposal is of far more consequence. It must wear well. There is a dignity and a majesty in the patient assertion of the right and the ability to control, which never fails to command respect. It is well, especially when taking charge of a new class, not to try to compel absolute order too suddenly. So long as pupils are really trying to do what the teacher wishes, he will, if a reasonable man, overlook slight offences, until good conduct has become a habit.

Control asserts itself chiefly through the *lip*, the *tongue* and the *eye*. They should be used in the inverse order to that in which they are named. The eye should be the exclusive medium of control, so far as possible; the tongue may be called to its aid in cases of emergency; the lip should be used very sparingly. The lip expresses firmness, combined with scorn or contempt, and these are sure to stir up active antagonism, rather than submission. A pupil may be, and often is, forced to yield without full obedience. The eye alone can convey a message of power and conciliation at the same time, and these are the elements of genuine control.

However good a teacher's control may be, he must not feel that he has secured the attention of his class merely on that account.

## MENTAL ARITHMETIC.—VI.

BY J. A. McLELLAN, M.A., LL.D.

If the modes described in the preceding articles have been carefully followed, the pupil, it may now be supposed, has made a "good beginning" in this important subject.

1. By a proper course of objective teaching, he has acquired clear notions of the numbers from one to twenty inclusive.

2. He has been thoroughly drilled in the *analysis* of the numbers from one to ten—knows how any of these numbers is formed by combinations of smaller numbers—and between these limits, is able to answer easy questions involving any of the fundamental operations: *e. g.*, he knows that  $6 = 5 + 1 = 1 + 5 = 4 + 2 = 2 + 4 = 3 + 3 = 2 + 2 + 2 = 1 + 1 + 1 + 1 + 1 + 1$ , &c.:  $4 + 3 = 7$ ,  $7 - 3 = 4$ ,  $7 - 4 = 3$ , &c.

3. He has advanced from *ten* to *twenty*—carefully comparing the numbers with each other and with *ten*.

4. He has been thoroughly drilled in the addition and subtraction tables, including numbers from *one* to *twenty*.

5. He has been constantly exercised in the solution of *practical* questions illustrating the simple rules.

6. Both eye and ear have been appealed to in the oral drilling, so that when numbers are named by the teacher the *hearing* pupil gives the desired result—and when numbers are pointed out by the teacher, the *seeing* pupil instantly names the required result, &c.

7. He has been constantly practised in written exercises corresponding to those with which he has been made familiar by abundant oral drilling; he can give orally all the results in the addition and subtraction table, and exhibit in written exercises the operations involved.

It will be expedient now to give the numbers from 20 to 100—dwelling first on the *tens*. With the numeral frame, or by marks, &c., groups of tens are shown; two tens, three tens, four tens, five tens, &c.,—then the names of these groups are given, or rather, some of them are given and the others inferred by the pupil; we call *three tens thirty*, then what will four tens be called? five tens? &c. And conversely, five tens are fifty, seven tens are seventy, &c. The knowledge which has been acquired in operating on the numbers from one to ten, may now be applied in performing similar operations on the *tens* from *one ten* to *ten tens*:  $1 \text{ ten} + 4 \text{ tens} = 5 \text{ tens}$  or 50;  $6 \text{ tens} = 1 \text{ ten} + 5 \text{ tens} = 2 \text{ tens} + 4 \text{ tens} = 3 \text{ tens} + 3 \text{ tens} = 2 \text{ tens} + 2 \text{ tens} + 2 \text{ tens}$ , &c.;  $3 \text{ tens} + 5 \text{ tens} = 8 \text{ tens} = 80$ .  $9 \text{ tens} - 4 \text{ tens} = 5 \text{ tens}$ , &c. The *intermediate* numbers may then be given. Two tens and one are twenty-one, two tens and two are twenty-two; then two tens and three = ? two tens and four = ? So, 3 tens and one = thirty-one; 3 tens and 2 = thirty-two, 3 tens and three = ? three tens and four = ? &c.

Of course the notation of the numbers may be given as soon as the *ideas* are clearly impressed. The pupil knows what the digits stand for: he knows that 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, stand for nothing (*i.e.* no balls, marks, &c.), *one*, *two*, *three*, &c.; he has been taught that the same symbols may stand not only for single things, but for *groups* of things, that *e.g.*, 7 may represent not only seven balls (or marks, &c.) but seven groups of *two*, or seven *twos*, 7 threes, 7 fours, 7 tens, &c., Hence if the figures are arranged in convenient groups, the notation will be easily learned.

(1). 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

(2). 10, 11, 12, 13, 14, 15, 16, 17, 18, 19.

(3). 20, 21, 22, 23, 24, 25, 26, 27, 28, 29.

(4). 30, 31, 32, 33, 34, 35, 36, 37, 38, 39.

The pupil is perfectly familiar with the first line—knows the meaning of the symbols—*zero*, *one*, *two*, &c.

Then the second line is 1 ten and nothing (or no balls or marks, &c.), 1 ten and *one* ball, *one* ten and *two* balls, *one* ten and *three* balls, &c.

The third line is *two* tens and *no* balls, *two* tens and *one* ball, *two* tens and *two* balls, *two* tens and *three* balls, &c.

The fourth line is *three* tens and *no* balls, *three* tens and *one* ball, *three* tens and *two* balls, *three* tens and *three* balls, &c.

And so on to *nine* tens and *nine* balls.

Exercises may now be given in these higher numbers; there must be constant oral drilling accompanied, or immediately followed by written exercises. There must be:

(1). Practice on the tens, as already pointed out:— $5 \text{ tens} + 4 \text{ tens} = 9 \text{ tens}$ , *i.e.*  $50 + 40 = 90$ .  $8 \text{ tens} - 5 \text{ tens} = 3 \text{ tens}$ , *i.e.*  $80 - 50 = 30$ .

(2). Separation (or "analysis") of the intermediate numbers into their tens and units, and conversely:

$47 = 4 \text{ tens and } 7 \text{ units or ones.}$

$89 = 8 \text{ tens and } 9 \text{ ones,}$

$8 \text{ tens and } 9 \text{ ones} = \text{eighty-nine} = 89.$

(3). Additions and subtractions *between* the limits 20 and 30, 30 and 40, &c.:

$24 + 5 = ?$   $26 + 3 = ?$   $22 + 8 = ?$   $35 + 4 = ?$

$39 - 4 = ?$   $48 - 2 = ?$   $79 - 8 = ?$

(4). There should be additions and subtractions *overlapping* (as it were) the decades:

$15 + 8 = ?$   $25 + 8 = ?$   $35 + 8 = ?$   $46 + 9 = ?$   $56 + 9 = ?$

$43 - 8 = ?$   $83 - 8 = ?$   $65 - 9 = ?$

It may be observed that these combinations may be readily mastered if the knowledge already acquired is properly applied:—The child for example knows that  $2 + 3 = 5$ ; he therefore knows, by inference, that  $12 + 3 = 15$ : knowing that  $12 + 3 = 15$ , he knows that  $22 + 3 = 25$ : knowing that  $8 + 6 = 14$ , he knows that  $18 + 6 = 24$ ,

that  $28+6=34$ ,  $38+6=44$ , &c. In short having mastered the addition and subtraction tables (i.e. including combinations from 1 to 20) he knows by implication the higher combinations,  $7+7=?$   $\therefore 7+-17?$   $7+37=?$   $38+39=?$   $\therefore 38+39=?$   $328+39=?$  Of course there should be constant practice in practical questions. John had 5 ten dollar bills; he paid two of them for a coat. How many had he left? How many dollars?

A man had \$40 (i.e. 4 tons) in a savings bank, he deposited \$50 more; how much had he then in the bank? Willie had 37 marbles and bought 8 more; how many had he then? Mary paid 5 cents for a bottle of ink, and 7 cents for a pencil case; how much change did she have out of a twenty-five cent piece?

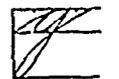
## PENMANSHIP IN SCHOOLS.—VIII.

### FORMATION OF LETTERS CONTINUED.



This letter occupies five spaces—three above and two below the base-line. It commences with a concave curve, starting at the base-line, and turning into a loop at its extreme height, where it unites with a straight line carried down on the regular slant through the five spaces, and returning on the right with a loop-turn at bottom, joining the main down-stroke at its centre, one-half space above base, here unite angularly and finish with right upward concave curve, one space above base-line. The shade is thrown on the lower part of the main down-stroke with a gradual increase and diminution. *Extended loop class. One shade. Width of loop, one-half space.*

*Analysis.*—Principles 2, 1, 2, 2.



The first part of small *g* is formed precisely like small *a*; the second part is carried down through three spaces, forming a loop which unites with the final up-curve—which is a single convex—crossing the down-stroke at the base-line and continuing to the height of the letter. *Extended loop class. Three spaces. One shade.*

*Analysis.*—Principles 3, 3, 2, 1, 3.

*Remarks.*—The small letters, *a*, *d*, *g*, and *q*, are precisely alike in the first or oval part and in the joining of this oval to the last part. In no instance should the parts touch, except at the top of the oval. This is secured by giving to the first part of the oval increased slant and curvature, and coming up to the point of connection with the ordinary concave curve.

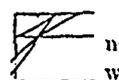


The small *h*, like small *b*, starts on base-line with a concave curve carried up three spaces, turns at top with contracted oval or loop turn and joins a modified straight stroke, which runs directly to base-line with a gradually increasing shade; the second or finishing part is formed like the last half of *n*. *Extended loop. Three spaces. One shade.*

*Analysis.*—Principles 2, 1, 3, 1, 2.

This letter is the result of three simple movements.  Begin on base-line with concave curve, move upward one space, return to base-line with straight stroke on regular slant, and unite, with half oval turn, to finishing concave curve, which passes upward to the height of the letter. The two curves should be parallel and equi-distant from straight line at starting and finishing points. The dot, which is peculiar to this letter, should be small, and placed the distance of a space above the top of the letter in direct line of its slant. *Minimum. One space. No shade.*

*Analysis.*—Principles 2, 1, 2.



Beginning on base-line ascend with right curve on connective slant one space; unite angularly and descend with straight line on main slant three spaces; turn short

and ascend with left curve crossing last stroke at base-line, and continue above on connective slant one space. Finish with light dot placed as in *i*. *Extended loop; three spaces. No shade.*

*Analysis.*—Principles 2, 1, 3.



The first part of small *k* is formed precisely like that of *h*, being composed of a concave curve, passing from base-line upward through three spaces, turning into a loop and descending to base-line on the regular slant, with a gradually increasing shade. The second part joins the main stroke at the centre of the lower space with the convex curve, which passes a little above the height of the space, and, turning well to the right, forms a reverse oval, connecting just below the height of the space with a small up-pointing loop, thence returning to base line with the first principle, united by half oval turn to terminating concave curve carried up through one space. *Extended loop; three spaces. One shade.*

*Analysis.*—Principles 2, 1, 3, 2, 1, 2.



Upward concave three spaces, downward straight to base-line, upward concave final. *Extended loop; three spaces. One shade.*

*Analysis.*—Principles 2, 1, 2.



Upward convex one space, downward straight, upward convex, downward straight, upward convex, downward straight, upward concave final. *Minimum; one space. No shade.*

*Analysis.*—Principles 3, 1, 3, 1, 3, 1, 2.

*Remarks.*—The correct example gives the proper union of the curves to the down-strokes. The lines touch at a point nearly on the base-line and immediately separate, which is a requirement not to be lost sight of, and which depends almost wholly on the curve-lines. A very common fault is to make the curves too rounding, which has the effect of merging them in the down-stroke, and changing the point of departure. As this is a characteristic fault in forming this class of letters, attention is thus particularly called to it.



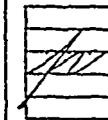
The small *n* has precisely the same elements and movements as the small *m*, differing only in the omission of the second part (or the second curve and second down-stroke). With this omission, the direction for forming the *m* will apply with equal force to the *n*.



Beginning on base-line ascend with left curve on connective slant one space; join angularly and descend with left curve on main slant to base; turn short and ascend with right curve meeting the others at top; finish with horizontal right curve one-half space to right. *Width of oval, one-half space.*

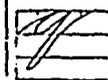
*Minimum; one space.*

*Analysis.*—Principles 3, 3, 2, 2.



Begin on base-line and ascend with right curve a little to the left of connective slant two spaces; unite angularly and descend with straight line on main slant, crossing base-line one space to right of beginning, and terminating one and one-half spaces below crossing; retrace to base-line, and there diverging to right, complete like last half of *n*. *Extended stem, three and one-half spaces, two above and one and one-half below base-line. One shade.*

*Analysis.*—Principles 2, 1, 3, 1, 2.



This letter differs from the small *g* only in the position and form of the terminating curve. Instead of a loop formation of the extended part, as in *g*, the main down-stroke passes  $1\frac{1}{2}$  spaces below the base line, and with a short turn to the right, the letter is finished with an upward convex curve, running, in the main, parallel with the down-stroke as far as the base-line, and thence more positively to the right, ending at

the height of one space. The first or oval part is formed exactly like the first part of *a*, *d*, and *g*. *Extended stem; two and a half spaces.*

*Analysis.*—Principles 3, 3, 2, 1, 2.

The small *r* is nearly identical in movement and form with small *i*. The first up-curve (concave) is carried one-fourth of a space above the height of *i*; from this point an almost perpendicular convex curve passes down to the top of first space, forming a sort of shoulder, and joined to a straight down-stroke on the usual slant, which turns at base-line with half-oval turn, finishing with concave curve carried up through one space. *Minimum. No shade.*

*Analysis.*—Principles 2, 3, 1, 2.

Commence on base-line with concave curve carried upward one and one-fourth space; return on this curve to the height of one space, whence diverge into a more full curve, turning roundly at base-line and uniting with the first stroke just above the base-line in a small dot. Thence follow the curve back to the base-line, and finish with concave curve carried to the height of one space. *Minimum. One space. No shade.*

*Analysis.*—Principles 2, 2, 2.

The movements of this letter are identical with those of small *i*, the difference being in the height—*t* occupying two spaces, and *i* one. Begin on base line with concave curve, and pass upward to height of letter, two spaces; with an abrupt square shade at top, return to base-line on the regular slant, covering the upward curve through half the distance, separating therefrom at the height of one space from base-line. Turn short on base-line, and finish with concave curve carried up through one space. The shade, which commences abruptly at the top of the letter, gradually decreases to base-line. The cross, which is made one half space from the top, should be light, short, and run parallel with base-line. *Extended stem; two spaces. One shade.*

*Analysis.*—Principles 2, 1, 2.

Small *u* is a simple small *n* inverted. It occupies a space in height, and comprises five simple movements, viz., three concave curves, and two straight strokes. The principles occur in the following order: 2, 1, 2, 1, 2.

NOTE.—Observe the distance between the parts, as also the connection at top and bottom. No two lines run together; the curves and straight lines alternate, the curves being parallel to each other and the straight lines the same.

Commence on base-line with convex curve, carry upward one space, join with half-oval turn to straight down-stroke on the regular slant, turn on base-line and pass upward with concave curve through one space, ending with small dot and sagging curve carried to the right. *Minimum. One space. No shade.*

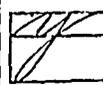
*Analysis.*—Principles 3, 1, 2, 2.

Upward concave one space, downward straight, upward concave, downward straight, upward concave, horizontal concave final. *Minimum. One space. No shade.*

*Analysis.*—Principles 2, 1, 2, 1, 2, 2.

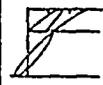
The first part of small *x* differs from the first part of *n* and *m* in the increased slant of the down stroke, which is necessary to give the letter correct form and proper position on the line. The second part is the exact reverse of the first part, the two touching in the centre. When properly formed and united, the letter has the appearance of a straight line crossing a compound curve. The distance between the two parts at top and bottom is the same as that between the parts of *m* and *n*. *Minimum. One space. No shade.*

*Analysis.*—Principles 3, 2, 3, 2.



Small *y* occupies three spaces—two below the base-line, and one above. It is in form exactly the reverse of small *h*, or small *h* inverted. The shade, however, is usually thrown on the contracted part, while in *h* it is located on the main portion, or stem, gradually increasing from the centre to the bottom, or base-line. Begin on base-line with convex curve; carry upward through one space, and, with half-oval turn, return to base-line; then unite through a corresponding turn to a concave curve carried upward one space; join with acute angle to a down-stroke on the usual slant, which passes through three spaces, turning at bottom, and with upward-moving convex curve form a graceful loop. The up-curve crosses down-stroke at base-line, and continues to the height of the letter. *Extended loop. One shade.*

*Analysis.*—Principles 3, 1, 2, 1, 3.



This letter occupies three spaces, one above and two below the base-line. Commence on base-line with convex curve, carry up one space, turning at top with a round turn; continue to base-line with an increasing slope, forming thereon a small loop; continue downward through two spaces, and with a leftward loop-turn at bottom pass up on a slight convex-curve, crossing the down-stroke at base-line, and finishing at height of letter. The dimensions of the lower loop are the same as loop of small *g* and small *y*. *Extended loop. One shade.*

*Analysis.*—Principles 3, 2, 2, 3.

NOTE.—The *z* is the only small loop letter in which the straight line or first principle is not used.

## LANGUAGE LESSONS.

An imperfect idea of a course of training in language is presented in the following series of exercises:

1. *Talking.*—The first lesson given to the little child in school, should be one in talking, and all through its primary course the maxim, "Talking before reading," should be carried out. It should be led to observe the qualities and uses of common objects, and then to express these observations in definite and complete sentences. The child has taken an important step when it can say "The paper is white;" "The coal is black;" "The fire burns;" "The bird sings," etc. Each reading lesson, however simple, should be talked about before it is read, and the ideas of the pupil should be expressed in short and complete sentences. Events and things in which children are interested will furnish a great variety of conversational exercises. Attention should be given, even thus early, to the correction of common errors.

2. *Printing or Writing Words.*—This is the first written step. Printing should begin as early as reading. The first word taught should not only be printed by the teacher on the blackboard, but also by the pupil on his slate. In like manner each new word should be introduced by chalk and pencil. Printing should be taught. Each letter should be printed on the blackboard, and the process of making it plainly described. Writing may be begun at the close of the primer, and even earlier. The copying of spelling lessons should be made an essential part of their preparation.

3. *Copying Maxims, Proverbs, Stanzas of Poetry, etc.*—The object of this is to make the pupil familiar with the written form of a sentence. The maxims and proverbs should be printed or written on the blackboard, and then neatly copied by the pupil. The reading lesson, one or two paragraphs of which should be copied each day, will afford additional exercises. Stanzas and even short pieces of poetry may be selected for the purpose. A little encouragement from the teacher will cause children to take great

pleasure in these copying exercises. Attention should be given to the proper use of capital letters and punctuation marks.

4. *Writing Sentences Dictated by the Teacher.*—In the preceding exercises the pupil has had the written or printed model before him. Now that which is addressed to the ear, is to be placed in proper form before the eye. This is a step in advance, and it should be carefully taken. Each sentence must commence with a capital letter and end with the proper punctuation marks; the words must be correctly spelled; and the whole neatly arranged and written. The exercises when written should be corrected by the teacher, and neatly copied by the pupil. Not only original sentences, but instructive maxims, verses of Scripture, etc., may be dictated.

5. *Writing Sentences Expressing Facts Observed.*—The pupil is now required to construct as well as copy sentences. The facts which he is led to observe, are first expressed orally, as in the first step, and then written neatly and correctly on the slate. The starting point is an object lesson—that is, a lesson in observing: the sentence making, and this is, as we believe, one of the highest uses of object lessons. They are the fountain out of which composition flows. The pupil may first express each fact observed in a separate sentence, as, "The chalk is white." "The chalk is round." "The chalk is hard." "The chalk is brittle." He may be taught to express these several facts in one sentence; as, "The chalk is white, round, hard and brittle."

6. *Writing Sentences Containing Given Words.*—This step may embrace two classes of exercises. In the first the pupil is required to use properly in sentences words selected from his reading lesson. Suppose the words selected to be "fragrant," "fleece," and "tossed." The pupil writes, "New hay is very fragrant." "My lamb has a snowy fleece." "The boy tossed the fish into the water." This is an excellent method of teaching the meaning of words. In the second class of exercises the teacher gives two or more words, and the pupil constructs a sentence containing them. Suppose the words given to be "skate," "ice," and "smooth." The pupil writes, "It is fine sport to skate on the smooth ice." The sentences should be first given orally and then in writing. We have seen a primary school wrought up to the highest pitch of enthusiasm by this simple exercise. The teacher scarcely completed the writing of the last word before a forest of hands indicated that the sentences were ready. In more advanced classes, this exercise may be employed to familiarize pupils with the nature and use of prefixes and affixes. The following sentences selected from an actual exercise on the word "form" will illustrate: "I form a piece of clay into a tube." "Vanity deforms the mind." "I ought to reform myself every day." "The caterpillar transforms itself into a chrysalis." "I perform on the piano with my fingers." "I conform to the wishes of my parents." "I inform myself by observing nature."

7. *The Description of Pictures.*—Pictures afford excellent materials for language lessons. Children like to see and talk about pictures. The simple question, "What do you see in that picture?" will call out several sentences. We recently heard a class of little children give a description of a camel. The teacher placed before the class a beautiful picture of this animal, and by skilful questions elicited sentence after sentence. We have in mind a primary school in which "picture lessons" furnish the material for an extended series of written exercises.

8. *Writing the Substance of Reading Lessons.*—The preceding exercises have led the pupil to the grouping of a few sentences so as to form a paragraph. The pupil's reading lessons will afford excellent materials for additional practice. A few questions will elicit the important facts, which, when expressed in the pupil's

own language and properly grouped, will form an excellent written exercise. The lesson should first be given orally. The pupil must talk before he writes. Only one or two paragraphs should be assigned for an exercise. This exercise is much used by the German teachers in the schools of Cincinnati, and with excellent results. The changing of stanzas of poetry into prose paragraphs is also a capital drill.

9. *Writing Incidents and Stories Related by the Teacher.*—This exercise is similar to the preceding, but more difficult. The pupil depends on his memory for the ideas to be expressed, and these he is obliged to clothe mainly in his own words. At first the teacher may by questions break up the narrative into short sentences, simply requiring the pupil to reunite them. The narrative should be short.

10. *Writing Descriptions by Answering Questions.*—So far the pupil has been largely furnished with the materials with which to construct his sentences. He has simply had to fashion and arrange. Now, under the guidance of suggestive questions, he is to furnish his own materials. The plan is simple. The teacher selects a familiar topic, as "Rain" or "Snow," and asks questions, which the pupils answer in writing. These answers are read in the class and freely discussed; then re-written by the pupil and properly grouped. A single topic may last several days, a few questions being answered each day.

11. *Letters.*—Pupils in our schools should have at least a year's instruction and practice in letter-writing. The ability to write an intelligent, well-expressed, neatly written letter at ten years of age, is a possible and important acquisition. We once had a pupil who, when a small boy in an English school, wrote a letter daily for two years. He greatly excelled all his class-mates in command of language, and in accuracy and readiness in composing. The dating, signing, folding and addressing of letters should receive special attention.

12. *Business Papers.*—These may include promissory notes, due bills, receipts, checks, drafts, &c. Every boy and girl should be early taught to draw up such papers in proper form. They afford, in addition to their practical value, an excellent practice in writing abbreviated words, dates, etc.

13. *Essays.*—The pupil now selects his subject, and expresses his ideas thereon in a connected manner; that is, he begins to *compose*. He may soon be thrown entirely on his own resources with the one essential injunction that he shall not attempt to write on subjects of which he knows nothing. He is to express ideas, and to this end he must first possess them.

In the above outline we have but little more than indicated the successive steps of the course. Each step may be made to include a great variety of exercises. It will be noticed that the course is progressively graded, rising in difficulty until the pupil reaches the composing of essays—a task which usually confronts and often baffles him at the very outset of his efforts to "write the English language correctly."

We call special attention to the fact that these exercises in language are to occur *daily*, the same as recitations in reading or arithmetic, and that the pupil's efforts are to be as faithfully examined by the teacher. The exercises are not only to be written, but to be read before the class and commented on, then examined and corrected by the teacher, and then neatly copied by the pupil. Every idea is to be correctly expressed and every sentence correctly written. Spelling, punctuation, the use of capitals—in short, every requisite of a perfect manuscript is to receive attention.

Nor is this all. When the pupil is sufficiently advanced in age and mental discipline to undertake the study of grammar, he must approach the same by the natural road of language. The laws and

generalization which constitute the science of language, are to be discovered by the pupil and made familiar by actual sentence-making. The relation of words and the nature and use of modifiers are to be learned by beginning with the sentence in its simplest form, as, "Grass grows," and then adding one modifying element after another until it is built up in all its completeness. Synthesis should constitute the bulk of the first six months' instruction in grammar. "Synthesis before analysis" is the true maxim in teaching language.—*Ohio Educational Monthly*.

### LACK OF INTEREST ON THE PART OF TEACHERS.

BY G. H. THOMPSON, HASTINGS CO.

Many young men and young women at the outset of life assume the very responsible duties of instructors of the youth of their native land,—not from any innate love of the calling, any praiseworthy ambition to elevate by their example, and permanently benefit by their life instructions, that portion of the growing population which represents the men and women of the future who are to succeed themselves in the various offices of life, but rather to obtain the means, perchance to some extent the education, wherewith to qualify for a different sphere of life altogether, to the actual detriment, may be, of the great work in hand; and the intellectual energies and aspirations of the neophytes, instead of being centred on the necessitous present, are directed to that blissful time to come when the sombre tinted, pupu-like state of the pedagogue may be exchanged for the full-plumed butterfly atmosphere of medicine or law, or some one of the numerous walks of life which have earned the designation of "*professions*."

Now, this is not as it should be. The teacher's calling is at least as honorable as the best—perhaps not as lucrative as some are, but I am not sure that it might not be made so, and that at no distant day. Why should the Public School Teacher stand still when all around him are pressing forward? Why should he alone be the passive instrument, when his very mouldings and intellectual subordinates are forging ahead, leviathan-like, over the tide of success, impelled by magnetic currents of brain-power and resolute will, and borne by the winds of prosperity into spacious havens and favoring ports? The teacher's calling is at a discount because there are so few really good teachers who intend to follow up the calling and continue teaching. The best forsake our ranks and only recruits remain. Crude material we have in plenty, but the seasoning is lacking, and we must not forget that before we can help to elevate any calling, no matter how honorable in itself, to the dignity of a *profession*, and especially of a well remunerated profession, we must prove indisputably that it is deserving of the privileges which we would obtain for it, and worthy of the height to which we would have it elevated. Now, I do say that this promotion and the acquisitions of those privileges are, in a great measure, in the youthful teacher's own hands. How? Why, just by honouring the calling himself; next by qualifying for it; and lastly by remaining in it.

How can any calling prove a useful or effective one, if its members do not believe in its utility and effectiveness; do not acknowledge it; do not take a pride in it; do not embrace it and adhere to it, first as the choice of their youth, and then as the mainstay of their vigor, and the hope of their decline? A man's and a woman's profession, to be successful, should be associated with every endearing epithet of life—friend, wife, husband and child. Struggling at the outset, may be, yet grandly overcoming, perseveringly progressive through the flight of years, and victorious at the end. What would law be, if a young man entered

the law office simply in the hope of so benefitting himself that in the course of time he might the better be able to cope with the difficulties presented by the examination for a diploma in medicine? What would the profession of medicine be if the druggist's store-room were but the peristyle to the courts of law, the avenue to the bar? Where would be our eminent lawyers? Where our physicians? I speak of public school teaching as a profession. I do not deny that many men have arrived at distinction through various channels, who have been public school teachers, but they did not earn that distinction as teachers. We have distinguished statesmen, distinguished barristers, distinguished doctors, distinguished divines, distinguished soldiers and sailors, distinguished professors, and high school teachers. Why should we not have distinguished public school teachers? I may be too ambitious, but depend upon it, too much ambition is better than none at all. I always entertained a feeling of deep respect for that Irish gentleman at Bath who, when the barrister complained in the coffee room that, although he had three fine-looking daughters with fortunes of £10,000 a piece, yet could get none to propose, stepped forward and said: "By your lave, sir, I will marry the three of them."

A little ambition is a good thing, and plenty is better. Without it, public school teaching will always remain where it is at present, and that is, as far as I can see, just nowhere at all, either in point of position, in point of proficiency, or in point of remuneration. I state this as a general principle. I am not now dealing with individuals or exceptions.

There is a class of teachers who teach merely for what the calling brings them. They have to do something for a living; have a certain amount of education, just sufficient, perhaps, to warrant them taking a low-class school, at a small remuneration. These enter the school door in the morning, never punctual, the personification of inanition, pass through the allotted school hours with about as much life and energy in them as that which animated the bedraggled and sorry frame of the "Jackdaw of Rheims," when discovered at the door, after his surreptitious removal of the relic, and consequent denunciation by the priesthood, and close the school gates behind them and make their final exit at four o'clock in the afternoon—punctually on the stroke, too—for all the world like automaton chess players, or Japanese praying machines, whose functions are performed by the revolutions of a crank. With this class of modern mummy I have no patience. I wish they could be embalmed, and placed on exhibition at our Teacher-training Institutions as frightful examples for young teachers.

They form a class of pedagogues for some of whose culpable negligence and indefensible ignorance better and worthier laborers have to suffer; for whenever a bipedal sloth of this description leaves a school it takes longer to banish false notions and eradicate evil habits which he leaves behind him than it does to instil right precepts and introduce methods of order and correct practices of study.

I will say, however, that such as these are the exception, and not the rule, among Canadian Teachers. However, even good teachers are liable to err a little on the side of non-interest. True it is that a teacher has to encounter many difficulties and discouragements in the exercise of his daily duties. His patience is often severely taxed; his energies sometimes nearly exhausted, but I think that every conscientious teacher will admit that it is only by maintaining interest, through and against all opposing circumstances, that the tide of opposition can be stemmed, the spirit of weariness and despondency conquered, true discipline maintained and efficient instruction imparted; and in proportion as the teacher

displays life and interest in the class room, will the pupils respond to the call upon their own intellectual and bodily energies. Activity is the outgrowth of interest. Give me a teacher who takes a real, live interest in his work, to use an Americanism, and I will answer for it his pupils will be proportionately intelligent, active, and correct, always providing that they have not previously been demoralized body and mind by one of the afore-noticed—exiles from the tombs.

But the teacher should not only show an interest in his work; he should train his pupils to respond by an answering display of interest; by precept; by example; by judicious correction, and by suitable recognition. Class registers, I have found to be a capital aid in promoting careful study, and in maintaining permanent interest in class work, where marks are given for perfect exercises and deducted for all imperfections, whether of attendance, conduct, recitation of lessons. Let those who exhibit the deepest interest in their work, and consequently who work the hardest, hold the places of honor in their respective classes, and by every means at disposal, strive to inculcate those feelings of ambition and competitive desire to excel, which, if rightly directed, cannot but succeed in producing an abundant harvest, to repay the outlay of labor on the part of the preceptor.

Thus much for interest in the school room. Let us now consider the subject of interest as connected with study. And here again I would like to ask another question. How many are there among the great and constantly increasing class of Public School teachers who, having obtained the necessary certificates of qualification, continue to maintain or improve the efficiency indispensable to a thorough and permanent success in the calling, by a conscientious and painstaking system of training for each successive day's labor with their respective classes; that direct preparation which is so essential to complete and thorough teaching; without which, indeed, no teaching worthy the name can be expected? Or, admitting that some do carefully and systematically prepare before hand for the class room, go a step farther, and descending for the nonce from the grade of teacher to that of learner, by indirect preparation of a still higher and more elevating kind, I mean by a general and extensive course of private reading and study, fit themselves to become, not merely smatterers of knowledge, journey-men intelligences, but authorities and powers—master craftsmen—not scholastic “hewers of wood and drawers of water” only, but great high priests of the calling, standing, as it were, at the educational altar, and dispensing the rich blessings and humanizing influences of great and varied acquisitions upon all around them. I think I may answer the question I have propounded with little or no hesitation. There are few who really deserve the name of conscientious students; many there are indeed, who, when once the school door has swung to behind them at the conclusion of the day's labors, think no more of the great aim and object of a teacher's life than if that life were to be a mere summer's holiday ramble down in the flowery by-lanes of existence, rather than an arduous and onerous passage over the straight and dusty highway of severe mental discipline. I will endeavor to show why a teacher should be a constant student.

In the first place, he should be a constant student because knowledge is his principal in life, from which he draws a life interest, and all knowledge is progressive. What was mastered yesterday will have to be relearned to-day. What may be acquired to-day will not answer for to-morrow; and what will be gleaned to-morrow cannot be expected to suffice to fill the store-houses of the far future. Man was never intended for a stationary being. His instincts, even when totally unaffected by the modifying influences of education, are all on the side of progress. Had it not been so from the very beginning, I fearlessly aver that man, with

all the antagonistic agencies which have been brought to bear against him; with all the fanatical prejudices and social hindrances with which he has had to contend at different epochs of the earth's history, more especially, perhaps, during the so-called dark ages, arrayed against him, could never have reached, far less have maintained, the enviable position which he occupies to-day in the scale of animated beings, and which is daily and hourly approaching nearer and nearer the bounds of absolute intellectual perfection. The revelations of science alone are continually adding to human knowledge new methods, and novel inventions are the order of the day; and thus, however stationary we may be in the law student's office, or at the merchant's counter, we cannot afford to stand still in the school room. Onward! is the battle-cry, and he who will not echo the shout must yield to one who will.

In the second place, a teacher should be a constant student, because the retention of knowledge, that is, the precise knowledge of facts and formula which he has to impart to others, depends, in a great measure, upon memory, and memory is proverbially treacherous. How few Macaulays do we find in the every day walks of life? And even the great historian and essayist was doubtless himself fallible, and his prodigious memory sometimes at fault. Study strengthens memory, as exercise develops the muscles of the body. Practice alone makes perfect; and depend upon it, no matter how good one's memory may be, it can further be improved by constant and unremitting application; a good memory may be made almost infallible, and a bad one at least so improved as to become tolerably efficient and reliable. How often do we find in reconsidering any acquired subject once familiar but long disused, some trivial incident missing, has slipped as it were from the web of memory; and try as we may, we cannot re-entrap the fugitive idea. This goes to show that memory is not at all times sufficiently reliable to warrant our giving lessons upon subjects which we have not ourselves studied, it may be for a number of years; since our schooldays, perhaps. What we want in class teaching is fresh, vigorous information, green and sparkling with morning dew, newly gathered from the tree of knowledge, not leafless, half withered relics, mementoes of the dead season of a past human life. “A thing of beauty is a joy forever.” Yes, and the acquirement of knowledge is a beautiful thing. Its loveliness increases. It can never fade into nothingness: no, not so long as we keep it fresh and green with the waters of continued application, constant revision and ceaseless research. And what a power there is in knowledge when once acquired!—Useful knowledge rightly acquired;—what a perpetual source of gratification to the savant! More surely fixed than the everlasting hills; more stable than the ocean's circling tide; emblem itself of eternity.

#### PERSONALS.

Mr. J. S. Bothwell has been appointed to a position in the Perth Schools.

Mr. Riddell, M. A., Mathematical Master in the Ottawa Normal School, has been elected local secretary for Ontario of the Royal Botanical Society of Edinburgh, Scotland.

Mr. N. W. Ford, of Otterville, was chosen by the St. Thomas High School Board to fill a vacancy in their prosperous institution from a list of seventy-one applicants.

Major C. R. Dearnley, Drill Instructor in the Toronto Normal School, has very successful calisthenic classes in the Ladies' Colleges in Hamilton and Whitby.

Rev. A. Sutherland and Rev. E. H. Dewart, editor of the *Christian Guardian*, had the degree of D.D. conferred on them recently by the Victoria University.

Miss Agnes Lawson retires on the first of May from the third department of the Model School, Fredericton, and takes charge of the advanced department of the Shediac schools. The trustees of Shediac are to be congratulated upon securing the services of so well qualified a teacher. Miss Katharine Bartlett, of St. John, a Dufferin Medallist of the Girls' High School, of St. John, and a recent graduate of the Normal School, succeeds Miss Lawson in the Model School.

Mr. Daniel McIntyre, of the Portland, N.B., staff, has been appointed by the Board of Trustees of the town of Portland to the office of Local Superintendent, in place of Arthur J. Trueman, A.M., resigned. Mr. Trueman's work has been well done, and Mr. McIntyre is well qualified to carry forward the work so well begun by his predecessor.

Dr. Bennett, Superintendent of the St. John, N.B., schools, has, we are glad to learn, recovered from his attack of paralysis.

Mr. F. F. Manley, M.A., Mathematical Master, Toronto Collegiate Institute, having been selected as a member of the Wimbledon team, will spend his holidays in England. We are certain Mr. Manley will give a good account of himself, as he is an excellent marksman.

W. E. Sprague, Head Master of Northumberland County Model School, has arranged to conduct the special class for teachers preparing for third, second, and first-class certificates at Ontario Business College, Belleville. Mr. Sprague holds a "1st A" (Provincial Medallist) certificate, is an able teacher and well qualified for the work.

Notes and News.

ONTARIO.

The next professional examinations for second-class teachers will be held at Toronto and Ottawa during the last week in June.

East London School has 640 pupils in attendance.

Peterborough schools have now 1,102 pupils on the roll.

In April, the Sarnia Public Schools had 630 pupils registered, and the High School 75.

St. Thomas High School Board has decided to plant trees on the Institute grounds.

Port Rowan High School has made remarkable progress under the efficient Head Master, Mr. Carlyle. It was at one time difficult to secure the minimum attendance of 10 pupils, but there are now over twenty pupils in preparation for the Intermediate and teachers' examinations.

The following extracts are made from the report of Mr. Hughes, P. S. Inspector for Toronto for 1878:

The total number of pupils registered during the year was 11,487. The average daily attendance was 7,467. Last year it was 6,860.

The increase in the attendance at our schools has been very rapid. In 1858 the Average Registered No. was 2,522, the Daily Attendance, 1,987

" 1868	"	"	3,657,	"	"	2,810
" 1878	"	"	8,276,	"	"	7,467

The Registered and Average Attendance have thus been more than doubled during the past ten years.

There were 140 teachers in the employ of the Board at the close of the year, exclusive of special teachers in Music and Drawing. There are 22 male and 118 female teachers employed. They hold certificates as follows: First Class Provincial, 50; First Class County Board, 18; Second Class Provincial, 72.

Steady progress has been made in the teaching of drawing. The system of Walter Smith is made the basis of the instruction given. The object is not to give the pupils an accomplishment simply, but to fit them for the better performance of their duties as citizens. The elements of Industrial Art and Designing are now taught in all our classes from the lowest to the highest. There is no doubt that in cities and towns, at any rate, Drawing taught in this manner is one of the most elevating, and at the same time, practical subjects of a School Course.

QUEBEC.

The Superintendent of Education, Hon. Mr. Onimet, has been gazetted a Justice of the Peace, with jurisdiction extending over the whole province.

Bishop Bond, of Montreal, has been appointed a member of the Protestant Committee of public instruction, and Judge Jette, of Montreal, and Dr. Larue, of Quebec, have been appointed members of the Catholic Committee. In connection with these appointments it may be remarked that nothing has yet come of the feeble attempt to secure for the schools of the province a representative on the committee. Every college has its representative or more, while the schools has none. These come in for the crumbs which fall from the masters' table in consequence.

A successful conversazione was held in Morrin College, Quebec, on the close of the session, at which the Principal, Rev. Dr. Cook, gave a statement of the initial difficulties of the college, and praised very highly the munificence of the late Dr. Morrin, the founder of the College, concluding with the hope that his example would not be lost upon Canadians. One hundred candidates presented themselves for certificates before the Catholic Board of Examiners at Three Rivers; eleven before the Protestant Board at Quebec. There were thirty one candidates for admission to the study of medicine at the examination held in Montreal.

On the 14th May the public examination of the Girls' High School, Montreal, was held. The pupils were examined in the various rooms. Principal MacVicar presided. Among those present was Dr. Dawson, of McGill College. At the close of the examination the pupils assembled in the large hall, where recitations and singing were gone through. The proceedings ended with congratulatory speeches from Dr. MacVicar and Dr. Dawson.

On the 20th May the examination of the Boys' Preparatory High School was held in Montreal. In this school are 189 boys, taught by a Principal, Mr. Artley, and four female teachers. After the usual routine the boys were dismissed, made glad with the promise of a holiday.

The following contributions have been given to the Faculty of Applied Science in McGill University: Mr. P. Redpath, \$400 per annum for five years; Mr. J. H. R. Molson, the same; Mr. H. McLennan, \$100 per annum for five years; Mr. A. F. Gault, the same; Miss M. Brothingham, \$400 per annum for three years; Hon. J. Ferrier, \$100 per annum; Mr. T. J. Claxton the same; Dr. Dawson, \$200; and Messrs. Redpath, G. Scott and Hickson, \$100 each.

The Annual Convocation of McGill College for the conferring of degrees and honors in the Faculties of Arts and Applied Sciences was held on the 30th April. The meeting was one of more than usual interest. Mr. Peter Redpath acted as Chairman. In addition to the Governors, Principal and Professors of the various faculties, there were present both the present Superintendent of Education, Hon. Mr. Onimet, and the ex-Superintendent, Hon. P. J. O. Chauveau, Sheriff of Montreal. The minutes of the last meeting were read by the Registrar, Mr. W. C. Baynes, and approved. Convocation then proceeded to elect two representatives of the different faculties. This election takes place according to statute. This resulted in the choice of Messrs. MacLaren and Ramsay, representatives of the Faculty of Law; Drs. Reddy and Brown, of Medicine; Rev. E. J. Roxford and Mr. Dougall, of Arts; and Messrs. R. Bell and Torrance, of Applied Science. Convocation then proceeded to the William Molson Hall, where a large concourse of citizens had assembled. The Ven. Archdeacon Leach opened the meeting with prayer. The Vice-Dean then read the list of those who had passed successfully the recent examinations. Eleven students passed for the degree of B.A.: W. McClure, Gold Medallist in Mathematics and Natural Philosophy; R. Eadie, Gold Medallist in Classics; R. J. B. Howard, Gold Medallist in Natural Science; H. S. Cross, Prince of Wales Gold Medallist in Mental and Moral Philosophy; W. D. Lighthall, Shakespeare Gold Medallist in English Language, Literature and History. Nineteen passed the sessional examinations of the third year, twenty-four of the second year, and eighteen of the first year. The Exhibitions were carried off in the third year by Messrs. Currie, P. T. Lafleur, Macdonald and Darcy; in the second year, by Messrs. Falconer and Ferguson; in the first year, by Messrs. H. A. Lafleur, Fry, Rielle and Fraser. One candidate from Morrin College and two from St. Francis College passed the Intermediate Examination. In the Faculty of Applied Sciences, five passed in the third year, six in the second year, and seven in the first year. The degree of M.A. ad eundem gradum was conferred upon the Rev. James Roy, of Montreal, and Mr. G. Dick-

son, Principal of the Collegiate Institute, Hamilton. The honorary degree of LL.D. was conferred upon the Rev. Dr. Jenkins, Chairman of the Board of Protestant School Commissioners, Montreal, and upon Mr. Francis Parkman, of Boston, so well known for his valuable contributions to early Canadian history. When the degrees had all been conferred, the Hon. Gédéon Ouimet, on the invitation of the Chancellor, delivered to the assembled graduates and students an appropriate Latin address. After a few remarks from Hon. Mr. Chauveau, the Principal gave a report of the history of the University for the past year. He stated that in McGill and the affiliated Colleges of Morrin, Quebec, and St. Francis, Richmond, there were altogether 474 students. That 74 degrees had been conferred during the year. That there were no graduates in the Faculty of Applied Science, in consequence of the course in that Faculty being extended to four years. That the Faculty of Arts had been strengthened by the appointment of Prof. Moyses to lecture in English Literature, and that vigorous efforts were being made in the direction of the extension of University influence to women and to schools.

Prof. Moyses, in the course of a few remarks, referred to University extension in England, and to the applicability of some of these extensions in furtherance of higher education in Canada. He remarked that the multiplication of Universities in Canada was a cause of anxiety for the educational future of our country. So jealous was England of this new-world peculiarity that University powers had recently been refused to Owen's College, Manchester, although that College was of European repute, and proposed to fix her standard of examination above the standard of London. Furthermore, that all thoughtful Englishmen had come to the conclusion that no sectarian University should exist.

In the evening, the University Dinner was held in the ladies' dining room of the Windsor Hotel, when over 100 gentlemen sat down and spent a very enjoyable time.

#### NOVA SCOTIA.

The report of the Board of School Commissioners for the City of Halifax shows that during the last school year 104 teachers—23 male, 81 female—were employed in the work of instruction in the city schools. The number of registered pupils was 5,279. The total cost of maintaining the schools for the year was \$78,081.73. Less than \$10,000 of this sum was received from the Government as Provincial allowances to teachers, the remaining and principal part having been raised in connection with the civic taxes. Few cities on the continent contribute more liberally to the cause of education than Halifax.

At its recent Town meeting, the Municipality of Pictou voted \$10,000 towards the erection of a new edifice for the historic "Pictou Academy." We regret that at their meeting a day or two after, the people of the sister municipality of Windsor did not "go and do likewise." It is alleged, and we believe with reason, that the friends of progress in Windsor are in a large majority, but were simply caught napping.

In connection with the regular exercises of "Anniversary Week" at Wolfville, it is understood that the new college edifice of Acadia will be formally opened.

Rev. Chancellor Hill, of the University of Halifax, is announced to speak at the commencement exercises of Mount Allison College, Sackville. N. B.

#### NEW BRUNSWICK.

The close of the month of April, when the last number of the JOURNAL was in press, was marked by the usual public examinations in the schools throughout the Province. From city, town, village and rural districts scores of paragraphs, and sometimes articles of a column's length, descriptive of the proceedings at these examinations poured in upon all the newspaper offices. For a week or two the teachers who had merited commendation by their zeal and ability, and the pupils who had distinguished themselves by readings, recitations, etc., were almost as prominently before the public as Hanlan and Cetawayo.

What is said of the success of teachers or the improvement of schools is all very well, and is likely to have a good effect; but not unfrequently the encomiums upon individual pupils are such as to occasion self-conceit in those so flattered, jealousy in others, and various undesirable emotions on the part of persons who know the truth. Two examples may be given from a single paragraph: "A perfect wonder was the reading of ——— by Miss A. B. The young lady read as though she had the experience of many years. Miss C. D.'s reading of the ——— was also very sweet, and was

a finished and an effective performance." Of course these girls believe every word of this. What improvement can henceforward be made on them?

The first of May is a time for the "flitting" of teachers as well as of families. While some removals, promotions and new appointments are always necessary, it is a thing to be deplored that so large a number of teachers are on the move, not only every year, but every term. We clip the following from the correspondence of the *St. John Globe*, as showing that the benefits of permanence are felt in some localities: "The advantages of retaining the same teachers for a succession of years have been very strikingly shown in the case of the school taught by Mr. C. A. Miles. Mr. Miles is a most zealous and efficient teacher, and has done more to promote the cause of education in Stanley during the past fourteen years than can be easily estimated. During the past term five schools in the vicinity of Stanley have been taught by young teachers trained in his school, and taught in a manner that reflects credit both upon themselves and their old teacher."

Among the changes reported are the following: Mr. Daniel McIntyre, lately Principal of the Portland High School, has succeeded Mr. Trueman as Superintendent of the Portland schools, and Mr. G. H. Fulton, B.A., has taken the position thus vacated. Miss Georgina Adams, Miss Clara Burrige and Miss L. J. Fullerton took charge of schools in St. John on the 1st of May, while Miss Lillie Herrington and Miss W. Hayes were placed on the reserve staff in that city. Miss Laura Hughes was transferred from Carleton to the 3rd grade in the Leinster Street building. The school trustees of Fredericton having decided to appoint a male principal to the Park Barrack schools, engaged the services of Mr. Robert M. Raymond, B.A. Mr. W. Y. T. Sims, B.A., takes the place of Mr. Allen as Mathematical Master in the Collegiate School. Miss Veazie, of St. Stephen, and Miss Katharine Bartlett, of St. John, both of whom attended the Normal School last session and obtained 1st class licenses, received appointments in Fredericton, the former to the 4th department, under Mr. Raymond, and the latter to the 3rd department of the Model School, vacated by Miss Lawson, who removed to Shediac. Miss Bartlett was Dufferin medallist at the Girls' High School, St. John.

Mr. Wm. McInnes, B.A., of Fredericton, recently at Grand Manan, has taken the Principalship of the Superior School at Bathurst Village, Mr. Girdwood having resigned the place he held for many years. Mr. Joshua Thompson was appointed teacher of the superior school at Hillsboro, lately taught by Mr. Wright.

The staff of teachers at Moncton now consists of Messrs. S. C. Wilbur, A.B., J. G. McCurdy and D. M. Trites, Misses Catherine Honnessy, Theora Fillmore, Isabella Wright, A. F. DeVere, Caroline A. Trenholm and Mrs. Simpson.

Among the recipients of addresses and testimonials on leaving their respective positions at the close of last term were Mr. Arthur Trueman, already mentioned; Miss Rebecca Logan, of the Advanced School at St. Stephen; Miss Lawson, of the Model School, Fredericton; J. B. Adams, at St. George, and Mr. James Vroom, of the Advanced School at St. Andrews. The last named gentleman, who was highly esteemed as a teacher, both by his pupils and the community, was dismissed from his position solely in order to effect a saving of expense. A writer to one of the newspapers says of St. Andrews: "This town now possesses schools which, for the good work done and for general efficiency, are not surpassed by any in the Province; and it is to be hoped that their continued efficiency will not be impaired by the inauguration of a cheese paring economy." Another case of questionable economy is that of the village of Grand Falls, which is to have no schools open this term, *paupertate causa*.

A very interesting exhibition was given by the Girls' High School in the Victoria Building, St. John, under the principalship of Mrs. Carr. The pupils went through with a well-arranged programme of readings, recitations and singing. John Boyd, Esq., Chairman of the City School Board, read the names of nine young ladies who had gained a place on the roll of honor, of the medallist for the year, and others deserving of honorable mention. Several gentlemen made appropriate speeches at the close. This school has recently received a valuable collection of mineralogical specimens, presented by the Geological Survey of Canada through the Chief Superintendent of Education.

The number of student teachers enrolled at the Normal School this session is 147. At the formal opening of the session, May 14th, the Chief Superintendent, the President of the University and the Hon. Attorney General were present and addressed the students.

The fencing and ornamenting of the Normal School Grounds, so long delayed, is reported to be at length under contract. The old willows and other trees on the ground have been removed, much to the regret of some to whom they were as ancient landmarks. Though possessing some of the inherent merits of large trees in general, they were in the way of the projected improvements, so that their fate was inevitable. The gravelled walks, the grassy plats, the choice shrubs and young trees tastefully disposed, with the handsome stone and iron fence that is to surround the whole, will present a very pleasing appearance.

The York County Teachers' Institute met at Fredericton on the 22nd and 23rd of May, too late for a report of the proceedings to appear this month.

In the months of June and July, several of the County Institutes will hold their annual meetings, viz., Carleton County, at Woodstock, June 5th and 6th; Queen's County, atagetown, June 12th and 13th; Sunbury County, at Fredericton Junction, June 19th and 20th; Kent County, at Richibucto, July 3rd and 4th; Charlotte County, at St. Andrews, July 10th and 11th; Gloucester County, at Bathurst, July 10th and 11th; St. John County, at St. John, July 10th and 11th.

Both the time (Aug. 19) and the principal subjects for the Educational Institute of the Province have already been announced in our February number.

It may not be amiss to mention the fact that at the approaching anniversary of Acadia College, Wolfville, N. S., and the ceremonies in connection with the opening of the new college buildings there, the music will be furnished from St. John, N. B.

The "Educational Circular," No. 9, recently published, contains, besides other valuable matter, a "List of New Brunswick Plants," by James Fowler, M.A., Instructor in Natural Science in the Provincial Normal School, and an exceedingly interesting and instructive treatise on "Reading as an Art," by Ernest Legouvé, of the Académie Française. This is worthy of the attentive perusal of every teacher, as is also a short article on "Emphasis in Reading" by Professor Bell.

#### MANITOBA.

The Board of Education took possession of their new offices about two weeks ago. They are very comfortable, and are well adapted for the purposes for which they have been taken.

The office hours of the Superintendent of Education for Protestant Schools are from 2 to 5 p.m. on Mondays, Wednesdays and Fridays.

Schools are being opened every week in new districts. The following already have schools for the first time, viz., Greenwood, Selkirk, Rosseau, River aux Marais, Owowa, Kilmory, &c. New school houses are being erected at Plympton, High Bluff, Alexandria, &c.

At the last quarterly meeting of the Protestant section of the Board of Education a large amount of business was transacted. Amongst other matters, the superintendent stated that he proposed to prepare a "School Manual" as soon as possible, and introduced the following regulations, which with others that have been adopted from time to time by the Board would form part of next manual. These were unanimously adopted, viz.

1. **VENTILATION.**—In all public schools under the jurisdiction of the Board, ample provision must be made for the admission and circulation of pure air and the escape of impure air.

2. **SIZE OF SCHOOL GROUNDS.**—In the country school grounds should be an acre in extent, but not less than half an acre; in towns not less than a quarter of an acre; separate play grounds being required in towns for boys and girls.

3. **FENCING.**—If possible, the school grounds should be enclosed by a substantially built fence.

4. **SCHOOL APPARATUS.**—The trustees of every district must provide such apparatus as the Superintendent or Inspector shall deem necessary for the efficient teaching of any branch of study pursued in the school.

5. **VISITING DAYS.**—With the concurrence of a majority of the trustees of any district, a teacher may substitute two Saturdays in each term in place of two of the regular teaching days, in order that he may visit other schools for purposes of professional observation; but before making application in this behalf to the board of trustees, it shall be the duty of the teacher to ascertain that the school or schools he proposes to visit will be in operation on the days for which leave is sought, and also to acquaint in advance the teacher of any school which he intends to visit of the time of such visit.

6. **"TEACHERS' ASSOCIATIONS.**—The Board heartily recommends the formation, wherever practicable, of teachers' associations, similar to the one already formed in the county of Selkirk.

The question of establishing a High School was under consideration at the last meeting of the Board of School Trustees for the City of Winnipeg. The matter is to come up again at the next regular meeting.

The city schools are doing remarkably well under the present staff of teachers.

### Readings and Recitations.

#### HANS VOGEL.

The fight is o'er, the day is done,  
And through the clouds o'erhead  
The fingers of the setting sun  
Are pointing down blood-red;—  
Beneath, on the white battle-field,  
Lie strewn the rifts of dead.

No breath, no stir; but everywhere  
The cold frost crawlth slow,  
And Frank and Tonton side by side  
Lie stiffening in the snow,—  
While piteously each marble face  
Gleams in the ruby glow.

No sound; but yonder midst the dead  
There stands one steed snow-white,  
And clinging to its chilly mane,  
Half swooning, yet upright,  
Its rider totters, breathing hard,  
Barehanded in the light!

Hans Vogel, spectacles on nose,  
He gasps and gazes round—  
He shivers as his eyes survey  
That wintry battle-ground—  
Then parched with thirst, and chill with cold,  
He sinks without a sound.

Then swift as thought his wild eyes gleam  
On something at his side—  
He stirs—he glares—he sits erect—  
He grips it eager-eyed:  
A flask it is, some fiend or foe  
Hath dropt there ere he died.

Hans Vogel's heart leaps up in joy.  
"Here's hope and life!" he cries:  
Then pursing out his thirsty lips  
Prepares to quaff his prize,—  
When lo! a sound—he starts—and meets  
A pair of burning eyes!

Propp'd on a bed of comrades dead,  
His faint breath swiftly flying,  
His breast torn open by a shell,  
A Grenadier is lying:—  
Grim as a wolf, with gleaming fangs,  
The Frenchman glareth, dying!

White are his locks, his features worn  
With many a wild campaign,  
He rocks his head from side to side  
Like to a beast, in pain—  
He groans athirst with open mouth,  
Again and yet again.

Hans Vogel in the act to drink  
And render God the praise,  
Drops down his fevered hand in doubt  
And pauses in amaze,  
For on that flask that Grenadier  
Fixeth his filmy gaze!

Hans Vogel smiles, "Here lieth one  
Whose need is more than mine!"  
Then crawling over to his foe,  
"Look, Frenchman, here is wine!  
And by the God that made us both  
Shall every drop be thine!"

Hast thou beheld a dying boar,  
Struck bleeding to the ground,  
Spring with one last expiring thro  
To rip the foremost hound?  
Terrible, fatal, pitiless,  
It slays with one swift bound

Ev'n so that grizzly wolf of war,  
With eyes of hate and ire,  
Stirs as he lies and on the ground  
Gropes with a fierce desire,—  
Then lifts a mighty carbine up,  
And lo! one flash of fire!

A flash—a crash! Hans Vogel still  
Is kneeling on his knee,  
His heart is beating quick, his face  
Is pale as man's can be:  
The ball just grazed his bleeding brow,—  
"Thank Heaven!" murmureth he

Hans frowns; and raising to his lips  
The flask begins to quaff.  
Then holds it to the fading light  
With sly and cynic laugh.  
Deep was his draught—sweet was the wine—  
And he had drunk the half!

But now he glanceth once again  
Where that grim Frenchman lies  
Gasping still waits the wolf of war  
Like a wild beast that dies—  
He groans athirst, with open mouth,  
And slowly glazing eyes

Hans Vogel smiles: unto his foe  
Again now totters he  
So spent now is that wolf of war  
He scarce can hear or see.  
Hans Vogel holds his hands and takes  
His head upon his knee!

Then down the dying Frenchman's throat  
He sends the liquor fine:  
"Half yet remains, old boy," he cries,  
While pouring down the wine—  
"Hadst thou not play'd me such a trick,  
It would have all been thine!"

Hans Vogel speaketh in the tongue  
Of his good Fatherland;  
The Frenchman hears an alien sound,  
And cannot understand,  
But he can taste the warm red wine,  
And feel the kindly hand.

See! looking in Hans Vogel's face  
He stirs his grizzly head—  
Up, smiling, goes the grim moustache  
O'er cheeks as gray as lead:  
With one last glimmer of 'ho eyes,  
He smiles—and he is dead.

## Teachers' Associations.

The publishers of the JOURNAL will be obliged to Inspectors and Secretaries of Teachers' Associations if they will send for publication programmes of meetings to be held, and brief accounts of meetings held.

**PRINCE EDWARD**—The semi annual convention will be held on Friday and Saturday, June 6th and 7th, in the County Council chamber Picton Friday—10 a. m. to 12, Algebra, J. A. Clark, M.A., 2 p. m. to 5, Map Sketching, Composition, Mistakes in Teaching—J. Hughes, Esq. Saturday 9 to 12, Drawing, School Discipline, the Kindergarten—J. Hughes, Esq. 2 to 4, Papers by Teachers and Question Drawer. Every teacher is requested to forward to the Inspector before the 1st June a list of such difficulties as he or she may have met with, for solution and explanation by a committee, at the Convention.  
W. R. BROWN, Secretary.

**WEST HURON**—The semi-annual meeting of this Association will be held in the Temperance Hall, Goderich, Friday and Saturday, June 20th and 21st, commencing on Friday at 10 o'clock a. m. J. A. McLellan, M.A., LL.D., has kindly consented to be present and to occupy most of the time in discussing Reading and Mathematical subjects. Should time permit the following subjects will also be taken up.—Difficulties in Analysis and Parsing, Mr. H. I. Strang, B.A. Promotion Examinations, Mr. Geo. Baird, Natural Philosophy, Mr. S. L. Hains, Military Drill Mr. J. R. Miller, I.P.S. Maxims for Teachers, Mr. R. Moir. On Friday evening a literary and musical entertainment will be held.  
J. R. MILLER, President. W. R. MILLER, Sec.-Treas.

**BRANT**—Friday and Saturday, May 30th and 31st.—PROGRAMME of Exercises.—First day—9 to 10 a. m. Preliminary Business; 10 to 10.30, Lesson on Book-keeping, J. W. Westervelt; critics, Messrs. Cochran, Gouffroy and Sims; 10.30 to 11, Proper use of Dictionary in Public Schools, W. E. Bradley, Master No. 13, Brantford; critic, Messrs. Thomas, Sattell and Chasgrain; 11 to 11.30, On Uniform Promotion Examinations in P. S., M. J. Kelly; critics, Messrs. Bartie, Dadson, and John McLean; 11.30 to 12, On Discipline in P. Schools, W. Wilkinson, M.A. Principal O. School; critics, Messrs. Mills, Bradley, and Rothwell; 1.30 to 2 p. m., Mathematical Geography and how to teach it, A. T. Watson, Master No. 20, Brantford; critics, Messrs. Reid and J. Fulton; 2 to 2.30 English Grammar Lesson, James Mills, M.A., Rector Collegiate Institute; critics, Messrs. Wilkinson, Thomas and Watson; 2.30 to 3, Aimless Education, Aimless Lives, T. M. Macintyre, M.A., LL.B., Principal Brantford Y. L. College; critics, Messrs. McIntosh, Dale and Kelly; 3 to 4, Singing with class, J. J. Sims, Master No. 2 Oakland. Second day—9.30 to 10 a. m., Geometry, how to teach it, W. Rothwell, Mathematical Master, Collegiate Institute; critics, Messrs. Anderson, Kelly and McIntosh, 10 to 10.30, On Music in Public Schools, W. F. Seymour Principal Burford School, critics, Miss Clarke and Mr. White, 10.30 to 11.30, On the Ventilation of School Houses, Geo. Dixon, M.A., Rector Hamilton Collegiate Institute; critics, Messrs. Mills, Westervelt and Wilkinson; 11.30 a. m. to 12.30 p. m., English Literature, Geo. A. Chase, M.A., Modern Language Master, Galt Collegiate Institute, critics, Miss Clarke and Messrs. Acres and Petch; 2 to 3 p. m., On Reading in Schools, Prof. A. Melville Bell of Tutelo Heights; 3 to 3.30, Reading Lesson with Class, H. A. Thomas, Principal Mount Pleasant School.  
M. J. KELLY, LL.B., President. W. ROTHWELL, Secretary.

**NORTH YORK**—Friday and Saturday, 30th and 31st May—The assistance of Mr. Jas. Hughes, P.S.I., Toronto, and a member of the Central Committee, has been secured for the occasion. On the Friday evening at 7.30 Mr. Hughes will take up the Kindergarten, besides giving a number of popular readings. On Saturday morning he will discuss Discipline, Map Sketching, and probably, if desired, some methods pursued in teaching different subjects. The other work will be as follows: Teaching First Book, Miss Norman Newmarket; Advantages of a Normal School Training, Mr. J. Brackin, Richmond Hill, Synthesis, Mr. Robert I. Terry, Spring Hill; Analysis, Paradise Lost, Book I., Lines 61, 122, Mr. W. Isamie, Newmarket; Object Teaching, (with class) Miss Maggie Barr, Newmarket, Reading, V. Book, pages 253, 323, Mr. Henry Love, Aurora; Drawing in P.S., Mr. McIntosh, Newmarket, Question Drawer (for difficulties), Mr. Jas. Hughes.  
D. FOTHERINGHAM, President. W.M. RANNIE, Sec.-Treas.

**ELGIN**—May 22nd and 23rd.—PROGRAMME: Thursday, 10-11 a. m., Business Meeting, Election of Officers, 11-11.30, Drawing, C. A. Scott, 11.30-12, a Reading, Miss Watts; 2-3 p. m., Physical Education, J. W. Cook; 3-4, Music in Public Schools Rev. Mr. Paradise; 4-5, Reading, O. R. Gunne. Evening Session, 8 p. m.—a Lecture by Prof. Young, of Toronto. Friday, 9-10 a. m., Arithmetic, A. F. Butler, 10-11, Elementary Chemistry, G. Broderick; 11-12, Essay on School Government, Wm Burdick; 1.30-2.30 p. m., Method of Imparting Knowledge, R. C. Inglesby; 2.30-3, Essay, Miss H. Robinson; 3-4, Question Drawer. The presence of the Rev. Geo. Paxton Young, M.A., Chairman of the Central Committee, and Professor of Logic, Ethics, and Metaphysics, of Toronto University, will give additional interest to the proceedings, and his Lecture on the evening of the 22nd will, no doubt, be both interesting and instructive.  
A. F. BUTLER, President. THOMAS LEITCH, Secretary.  
St. Thomas, May 13th, 1879.

**SOUTH HASTINGS**—May 29th and 30th.—PROGRAMME. Thursday, 29th, 9-9.30 a. m., Election of Officers and Enrolment of Members, 9.30-10, Address by Inspector; Tablets, illustrated by a class, Miss Macinnes; 11-12, Junior Arithmetic, T. W. Kenny; 2-3 p. m., Algebra, J. A. McLellan, LL.D.; 3-3.30, Essay, Self-culture, T. O'Hagan, 3.30-4, Grammar to Juniors, J. Irwin, 4-5, Geography, Mr. Milburn. 8 p. m., Conversazione in the City Hall, to consist of Music, Readings, Recitations, and addresses by J. A. McLellan and others. Friday, 30th, 9-9.30 a. m., Psychology, T. W. Kenny; 9.30-10, Second-Book, illustrated by a class, Miss Potter; 10-10.30, History, Miss Tompleton; 10.30-11, Composition, H. M. Hicks, M.A.; 11.30-12, Essay—The Teachers of Yesterday, To-day and To-morrow—Gilbert Parker; 2-3 p. m., Arithmetic, Philosophy, Dr. McLellan; 3-30, Drawing, Miss Stewart; 3.30-4, Question Drawer, Messrs. McLellan, Dawson, Mackintosh and Johnson.  
S. A. GARDNER, Secretary. J. JOHNSTON, President.  
Belleville, May 13th, 1879.

**Div. No. 1, LEEDS**—Thursday and Friday, May 29th and 30th.—Addresses will be delivered, and the subjects of Reading, Algebra, Arithmetic, Chemistry, Object Lessons and Geography taken up, by Messrs. Atkinson, Worrell, Mitchell, Asseltine and Bigg. Practical Teaching will be exemplified with a class formed of the teachers. A consultation as to the augmentation of the library, and other miscellaneous business will also occupy a portion of the time. A full attendance is requested.  
W. R. BRIGG, Cor. Secy.

**EAST GREY**—Thursday and Friday, May 29th and 30th.—PROGRAMME: G. T. Evans, Book-keeping, Miss Tolton, Moral Training; H. T. Law, Penmanship; John Tait, Quadratic Equations and Statics, M. McKinnon, The Teacher out of the School room, Hiram L. Smith Chemistry, H. DeLamater, Reading and Election; J. Farewell, Practical Education; George Lindsay, How to Teach Grammar; Miss Mary Logan, Object Teaching; John Hewgill, Geography; Managing Committee, Question Drawer. There will be an entertainment on the evening of the first day's session.  
J. FAREWELL, Secy.

**NORTH, WELLINGTON**—May 29th and 30th, 1879.—PROGRAMME.—1 Uniform Promotion Examinations, D. P. Clapp, B.A., I. P. S., 2, Geography to a "II. Class," M. McKay, H. M. Clifford, P. S., 3, Grammar to a "III. Class," S. T. Perry H. M. Rothay P. S.; 4 Question Drawer Opened, 5 "Function X" and Factoring, R. Hislop H. M. Glendon P. S.; 6 Election of Officers; 7 Etymology, C. F. Ming, H. M. Harrison, P. S.; 8 Statics, James Craig, B. A. Mt. Forest H. S., 9 Milt. P. L., Bk II., J. Reid, B. A., H. M. Mt. Forest H. S.; 10 Question Drawer, Messrs. McKenzie & McPherson, Westervelt, Ming, P. McEachern and Hamilton; 11 Presentation to A. Dalgall Fordyce, Esq. An Entertainment, consisting of a Lecture by J. Reid, Esq., B. A., on "England's Homer;" Recitations, Addresses and Music, will be given on the evening of Friday, 29th.  
SAMUEL T. PERRY, Secretary, Rothsay P.O.

**NORTH HASTINGS**—Saturday May 31st, at 10 a. m.—PROGRAMME.—1 Appointment of a delegate to the Provincial Association, and other routine business 2 The method of teaching Reading, introduced by Mr. Mackintosh, I.P.S. 3 The Teacher's preparation of lessons, by Mr. Kirk. 4 Some thoughts on the teaching of Arithmetic, by Mr. McIntosh, I.P.S. 5 Readings, by Mr. Thompson and others, and vocal music by the pupils of the Model School.  
W. MACKINTOSH, President. GEO. KIRK, Secretary.

**No. 2, LEEDS.**—Thursday and Friday, May 29th and 30th—PROGRAMME: Thursday, May 29th, 9 a.m., Business Meeting, Reading Minutes, &c.: 9.30, Roll Call of Members; 10, President's Address; 10.30, Multiples and Measures, by Messrs. Rowatt, Rabb and Eyre; 11.20, Order, by Messrs. Evans, Davis and Easton; 1.30 p.m., Monthly Reports, by Messrs. Burke and Derbyshire; 2, Physical Geography, by Prof. Macoun; of Albert College; 3, Composition, by Mr. Wherry, Miss Addison and Miss Stafford; 3.30, Spelling, by Miss Fulton, Mr. Hanna and Mr. Doneven; 4, Geography, by Miss Bentiv, Miss Giles and Mr. McMeekin; Evening, 7.30, Lecture by Prof. Macoun, "The North-West." Friday, May 30th: 9 a.m., Book-keeping, by Mr. Washburn; 9.30, Some of the Characteristics of Good Teaching, by Dr. Kinney; 10, Botany, Classification and Structure, illustrated by specimens, Prof. Macoun; 1.30 p.m., Grammar, by Mr. Bowerman, Head Master High School; 2, Question Drawer; 2.30, Algebra, by Mr. Eyre; 3.30, History, by Mr. Rowat.

R. KINNEY, Secretary.  
Brockville, April 29, 1879.

A. BOWERMAN, M.A., President.

**PETERBORO.**—The third semi-annual meeting of the Peterboro' Teachers' Association was held on the 22nd and 23rd of May last. The convention was a complete success; the presence of two High School Inspectors imparting a life and energy it would not have otherwise have made. After general business, the first subject, "Written Examinations," was introduced by J. Jameson Wright. Miss J. H. R. Patton then read a very interesting and instructive essay on "Hints on Answering and Questioning." The essay will be published. A lively discussion here took place on mode of questioning a class, in which Messrs. Stratton, McFaul, Campbell, Earl and McLellan took part. Dr. McLellan introduced Arithmetic. He laid great stress on Addition and its intimate connection with the other rules. The Dr. expressed his ideas in plain forcible Anglo-Saxon. In the evening Mr. Buchanan addressed a meeting of over 500, in the Opera House, on "The Origin of the English." Friday morning, Mr. T. B. Braden (with class) conducted a recitation in Parsing and Analysis. Mr. Brown, P. S. I., treated Elementary Geography. Dr. McLellan discussed Algebraical Factoring—comment is unnecessary. Miss Blasdell (with class) introduced Object Lessons. Mr. Buchan followed with an address on English Grammar and Literature. After other general business the convention adjourned. The teachers separated feeling more than ever the importance of their work, and the duty of preparing for it. Officers for ensuing year:—President, James Coyle Brown, P.S.I., Peterboro'; First Vice-President, James Stratton, Peterboro'; Second Vice-President, F. J. Lynch, Peterboro'; Secy.—Treas. J. J. Wright, Bridgenorth; Committee of Management, J. F. Jeffers, M.A., Miss Pantou, Messrs. Moore, Quinn and Shearer. In the evening Dr. McLellan delighted a large audience for one hour and forty minutes.

**ONTARIO.**—The semi-annual meeting of the County Teachers' Association was held in the High School building, Port Perry, on Friday and Saturday, May 16th and 17th. There was a very large attendance of teachers and others present during each session. The President, Mr. James McBrien, P.S.I., occupied the chair. After the Secretary read the minutes of the previous meeting, the following subjects were taken up and very fully dismissed:—"Reading and Spelling to Beginners," introduced by Mr. H. S. Clarke, who was followed by Messrs. Jardine, Pedley, Yeomans and Jennings; "How to Teach Geography," introduced by Mr. D. Jennings, with brief remarks from Messrs. Tamblin, Jardine, Yeomans and others; "English Literature," introduced by Mr. C. S. Pedley, and followed by short addresses from Messrs. Robinson, Magee and Tamblin; "Solutions of Arithmetical Problems for Second and Third Class Teachers," by Mr. J. J. Laguee, B.A.; "Mistakes in Teaching," by Mr. Jas. Hughes, P.S.I., Toronto; "Factoring," by Mr. Jas. McKenzie, and the "Question Drawer," conducted by Mr. W. W. Tamblin, M.A. In the evening of the first day, Mr. Hughes gave a public lecture in the Town Hall, on the Kindergarten. Mr. Hughes' able addresses added in no small degree to the success of the meeting. The next meeting is to be held in Uxbridge, in October, when another successful meeting is anticipated.

JAMES BROWN, Sec.-Treasurer.

**WENTWORTH.**—The semi-annual meeting of this association commenced on Friday morning, May 2nd, at 10 o'clock, in the Collegiate Institute buildings at Hamilton. After routine business, Messrs. Norton and McQueen were appointed delegates to the Provincial Association. A very interesting discussion then took place upon the use of the rod in school, in which Messrs. Moore, Norton, Fletcher and Shaver took part. It seemed to be the general opinion that corporal punishment is necessary in certain cases, but should be used very sparingly. The following officers were appointed for the following year:—President, George Dickson, M.A., Collegiate Institute; Vice-President, J. H. Smith, I.P.S., Co. Wentworth; Treasurer, W. O. Morton; Secretary, W. E. Norton Executive Committee—A. McCallum, M.A., City Inspector; A. W. Falconer and Wm. Stewart. A very excellent paper was then read by Mr. R. E. Gallagher, Writing-Master of the Canada Business College, Hamilton, upon the subject of Penmanship. He treated the subject very ably. W. H. Ballard, M.A., then took up the subject of Mental Arithmetic, and occupied the remainder of the afternoon in explaining short methods of solving difficult problems. In the evening a large audience assembled in the Institute Hall, to listen to readings by Mr. Richard Lewis, Head Master of the Dufferin School, Toronto. Mr. Dickson, the new President, occupied the chair. Mr. Lewis gave a num-

ber of excellent selections in a very able manner, and fully sustained his reputation as a complete master of the science of elocution. Music was furnished by Mr. Johnston, teacher of music in the city schools, assisted by a large and well trained choir. The association met at 9 a.m., on Saturday, and after some routine business Mr. Richard Lewis was called upon, who introduced the subject of "How to Teach Reading." He first treated of the objects to be aimed at in teaching reading, and held the opinion that if this subject were properly taught, public readings would in the course of time take the place of the theatre in public entertainment. He then spoke at some length upon the present system of teaching reading in our public schools, and condemned it in almost unqualified terms as being clumsy and illogical. He next took up the Phonic system of teaching, and distinguished it from the Phonetic system which he does not approve of. He explained the Phonic system as used in many of the leading schools in the States, and recommended it as the best for cultivating the voice and making good readers. A vote of thanks was tendered to Mr. Lewis for his able and instructive address. The association then adjourned.

W. E. NORTON, Secretary.

**FRONTENAC.**—The association met at 11 o'clock a.m., May 1st, when a communication from Waterloo County Teachers' Association, respecting Third-Class Teachers' Certificates, was read by the Secretary, but the discussion of it was postponed till the afternoon. The first paper read in the afternoon was by Mr. Bole, Principal Garden Island P.S., subject, "School Hygiene." The resolution of the Waterloo County Association at their last meeting, have come to the conclusion that as the standard for third class teachers is within the limits of the P.S. programme, there can be no legitimate objection to their being prepared in the public schools, and we also consider that the standard is sufficiently high as the certificate is only good for three years. Prof. Dupuis then gave an address on "The Scientific Units of Weights and Measures," advocating the adoption of the Metric System. Dr. McLellan next gave an address on Arithmetic, which was listened to with marked attention, and highly appreciated. In the evening Dr. McLellan gave a public lecture, subject, "Canada's Elements of National Power." Votes of thanks were passed to Dr. McLellan. On Friday the association met at 9 a.m., in the Collegiate Institute. The first subject taken up was Elementary Drawing, introduced by Mr. McIntyre, Principal Catarqui P.S. Mr. Summerby, Principal Model School, Kingston, then read a paper on Discipline, which led to some discussion. Dr. McLellan then gave an address on Algebra, dwelling principally on Factoring. In the afternoon the officers for the ensuing year were re-elected as follows: Prof. Dupuis, President; Dr. Agnow, I.P.S.; Vice-President, Mr. Henstridge, Principal Portsmouth P.S., Secretary-Treasurer. Dr. McLellan then gave an address on Reading, in his usual felicitous style, after which a cordial vote of thanks was tendered Dr. McLellan for the valuable services rendered by him during the meeting. The association then adjourned to meet in Kingston on the first Thursday and Friday in November.

J. W. HENSTRIDGE, Secretary.

May 18th, 1879.

**LENNOX AND ADDINGTON.**—About 100 teachers were present. The exercises commenced with a lesson on drawing by Mr. A. B. Kidd, head master of Newburgh Public School. The Association then proceeded to elect the officers for the current year with the following result:—President, F. Burrows, Esq.; 1st Vice President, R. Matheson, B. A.; 2nd Vice-President, A. B. Kidd; Secretary, Wm. Tilley; Treasurer, James Bowerman; Committee of Management, Wm. J. Black, Napanee; D. G. Storms, Ernestown; W. R. Clancy, Ernestown; Mrs. R. McKim, Selby; Miss J. Walsh, Napanee; Auditors, Willis Chipman, Napanee; Thomas M. Henry, Bath. Mr. Thos. Henry then took up the subject of Algebraic Factoring, confining himself to the factoring of trinomial and binomial quantities. His modes of operation and of demonstration were characterized by simplicity and elegance. He was followed by Dr. McLellan, who, after complimenting Mr. Henry upon the accuracy of his methods, took up the subject more extensively, and gave several elegant artifices for the factoring of quantities that hitherto it has been deemed impossible to factor. The next subject was the English Literature for third class teachers, which was ably handled by Mr. Matheson. Dr. McLellan gave an admirable lesson on the teaching of arithmetic to junior classes. This was perhaps the most important and useful of the exercises. Saturday—Second Day.—The first subject was Geography, by James Bowerman, Head Master of Napanee Model School. He showed how young pupils should be made familiar with the cardinal points, and the relative position of places by means of local objects, and recommended the use of geographical pictures to illustrate the different divisions of land and water. He recommended map drawing as one of the best means of teaching descriptive geography thoroughly. Dr. McLellan then took up the subject of reading. After referring to the indifference with which reading has too often been regarded, he spoke of the more common errors and defects, such as general slovenliness of articulation, reading too rapidly, reading in a monotonous tone, &c., and gave practical suggestions for the remedying of these. Mr. Embury, of New-

burgh High School, then gave a very useful lesson in the teaching of Euclid. The concluding subject of the session was an address by the President on, "How to secure regular attendance." As some of the aids in securing this very desirable attainment Mr. Burrows recommended the following: 1. That the teacher should make the school room and its surrounding as attractive as possible. 2. That he cultivate a kind and courteous manner towards his pupils. 3. That he pay particular attention to those pupils who are the least precocious. 4. That he prepare the studies for each day so as to be able to impart to them a living interest. 5. That when occasion requires it, he visit the parents of absent pupils to make inquiries, and thus manifest his interest in them. On Friday evening a conversation was held in the Town Hall, under the auspices of the Teachers' Association, consisting of music, addresses, readings, recitations, and chemical experiments.

### REVIEWS.

**FIRST LATIN WRITER.** By Geo. L. Bennett, M.A. (Livingtons). This is an excellent little book. It gives the essentials of Latin Grammar, and a large number of judiciously arranged exercises in Latin Composition. The structure of the simple sentence is carefully illustrated; then the compound sentence, with its various clauses; then follow a large collection of pieces for translation into Latin, with hints on the idiomatic expressions, &c. The work has both a Latin-English and an English-Latin vocabulary.

**XENOPHON'S ANABASIS OF CYRUS, BOOKS I. AND II.** By R. W. Taylor, M.A. (of Rugby School). This work contains an introduction and historical sketch, a short sketch of the principal rules of Greek Syntax, to which references are made in the text (a most valuable aid to students), and the necessary vocabulary. The English notes are evidently the work of a thorough and experienced teacher. Both the above books are admirably suited to the needs of students; for private students they are simply invaluable.

**"THE CANADIAN ACCOUNTANT."** *Belleville, Ontario, Business College.* Price \$2.00. This elaborate work on the science of accounts contains almost everything required in a reference book for business men, accountants, and bankers. The sets illustrating condensed practical methods of keeping accounts in all the various departments of business, show an extensively experienced knowledge of the subject on the part of the authors. Aside from practical book-keeping and its collateral branches, such as Business Paper, Commercial Arithmetic, Correspondence, Dealings with Banks, &c., the work contains rules for Measurement of Lumber, Logs reduced to Board Measure, Finding the Cubical Content of Square Timber, Round Timber, Estimating Carpenters' Work, Tiling or Slating, Plasterers' Work, Painters' Work, Stone Masons' Work, Bricklayers' Work, estimating Hay by the Load, Gauging, Measuring Wood, Land, &c. It should be read by teachers preparing for examinations.

**AMES' ALPHABETS.** *New York: Bricknell & Comstock.* A book of alphabets, prepared by Professor Ames, the celebrated Engrosser and Pen Artist of New York, adapted to the use of architects, engravers, engineers, artists, sign painters, draughtsmen, &c. It contains thirty different styles of alphabets, many of which are original, and now appear in print for the first time.

**DICTIONARY OF SCIENTIFIC TERMS,** *William Collins, Sons & Company, London and Glasgow.* This is a useful little book, octavo size, containing nearly 1,400 definitions of words used in popular scientific literature. The definitions are brief and clear. The work contains several hundred illustrations, which are of great service in giving a better understanding of the verbal definition.

**MANUAL OF INTERNATIONAL LAW,** *A. S. Barnes & Co., New York.* \$1.50. This is an abridgment of the exhaustive work of M. Calvo, published in 1872 in Paris. It is translated and edited by Dr. Gallaudat, of Washington. The editor contributes considerable original matter, and had the aid of several able and distinguished gentlemen in the preparation of his work. The historical sketch given of the progress of International

law is interesting and instructive. The greater divisions of the book are, 1. General Principles and Sources of International Law; 2. Essential Attributes of a State; 3. Rights, Powers and Duties of States (a) in time of peace, (b) in time of war; 4. Neutrality. The whole book, though technical enough for a text-book, is written so as to captivate the general reader.

**THE TEACHER.** *McMillan & Co., London.* This work is written by J. R. Blakiston, M.A., one of Her Majesty's Inspectors of Schools. It does not profess to treat exhaustively either the subject of School Management or Method, but contains a good many sensible, practical suggestions, mainly relating to school management. Perhaps the most valuable portion of the book is that relating to sewing classes.

**TOPICAL ANALYSIS.** *S. R. Winchell & Co., Chicago.* 50 cents. In preparing this book the author had chiefly in view the systematizing of the preparation and outlining of lessons by teachers. He also aimed to save pupils the time and trouble of copying down these outlines after they have been given on the board by the teacher. Whatever difference of opinion may exist as to the advisability of the latter object, there can be doubt about the former, or the way in which this little book accomplishes its design. It would be of great use to teachers to give them models for lesson outlines, as well as for a comprehensive yet simple method of arranging a course of consecutive lessons. The outlines in Physiology and Hygiene are especially good.

**THE PRIMITIVE METHODIST MAGAZINE.** *John Dickenson, Sutton Street, E. London, England.* A large, beautifully illustrated monthly. It contains interesting stories, sketches, poetry, logic and biography. We can heartily recommend it to our readers as one of the best and most ably conducted religious magazines published in the English language.

**POPULAR SCIENCE MONTHLY FOR JUNE.** The June issue of this periodical well sustains its high character. There are several articles that should prove of great interest to teachers, among which are Prof. Trowbridge's on "The Study of Physics in the Secondary Schools;" and Prof. Brook's on "The Condition of Woman from a Zoological point of view." The remaining articles are interesting and suggestive.

**ELEMENTARY ANATOMY, PHYSIOLOGY, AND HYGIENE.** For schools and families. By Edwin Hlyter, M.D. "The necessity for much more widespread and universal knowledge on the structure and functions of the human body, and the causes of disease and means of avoiding them and preserving the health, is admitted by every one. \* \* \* A want has been much felt, and frequently expressed, for an elementary work, suited to the masses of the people, especially the youthful portion, on the subjects of physiology and hygiene, and this want the author of this little book has endeavored to supply. While there are a number of excellent works on the same subjects in the hands of the public, they are, for the most part, either too large or too technical for general use, or too elementary or incomplete." The above is from the author's preface of the book under review. The work consists of about 170 pages, nearly half of which are devoted to anatomy and physiology, and the remainder to hygiene, with a large number of questions and a copious index. It is sufficiently illustrated, and the typographical appearance of the work is very good.

**SCRIBNER'S MONTHLY.** *June.* In addition to the poems and stories we have Fine Arts at the Paris Exposition, with 22 illustrations, Brazil, No. 2, with 14 illustrations; The University of Berlin, with 6 portraits; Piercing the American Isthmus, with maps, &c., Matthew Arnold's Poetry; Edison and his Inventions; and Editorial work. A valuable number for educators.

**HARPER'S MONTHLY,** *June,* contains many sketches and tables of interest, and the following among other articles: The Honorable Hudson Bay Company, with 14 illustrations; Sketches in Tyrol: Grand days of Histories, with 10 portraits; Recollections of Agassiz, Draining a Village; and the usual unlimited and unsurpassed Editorial Departments of fun, wisdom and information.

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