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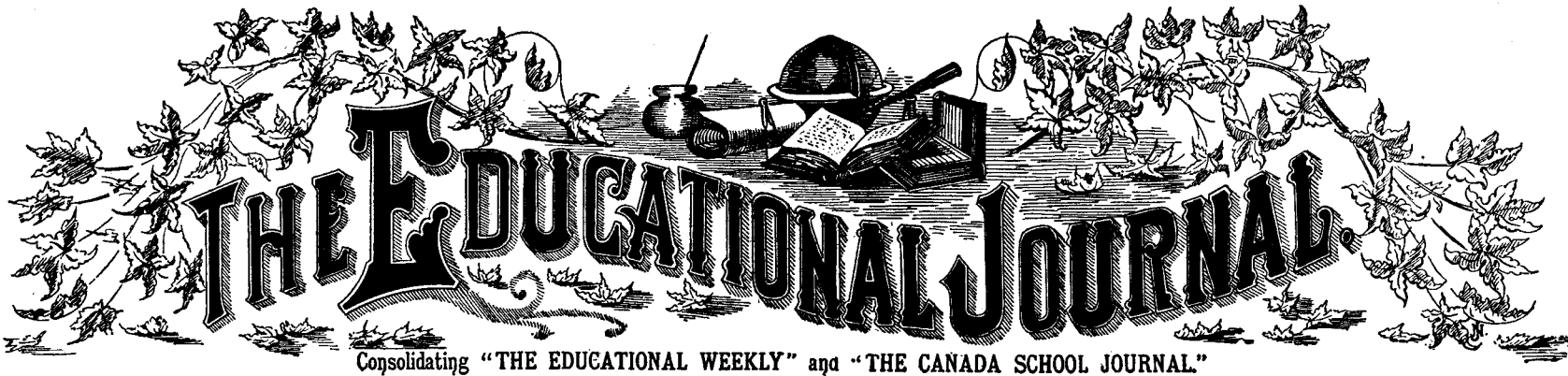
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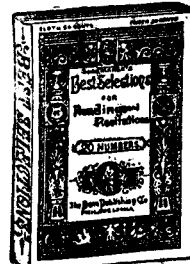
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OFFICIAL CALENDAR

— OF THE —

EDUCATION DEPARTMENT

February:

1. First meeting of High School Boards and Boards of Education. [P. S. Act, sec. 106 (1); H. S. Act, sec. 13 (1).]
15. Pupils' specimens of work for World's Columbian Exhibition due at Department.
23. Art School Examinations begin.

Special attention is drawn to a circular issued by the Education Department in which the co-operation of inspectors and teachers is requested in the preparation of a collection of pupils' work from the schools of Ontario, to be exhibited at the World's Columbian Exhibition in Chicago, 1893.

The specimens should be sent to the Department through the Inspectors and High School Principals not later than February 15, 1893, and will include the following:

LIST OF SUBJECTS.

1. Kindergarten Work.
2. Writing—Copy Books.
" — Specimens of Writing.
3. Book-keeping—Sets of Books.
" — Commercial Forms.
4. Drawing—Books.
" — Specimens of Freehand, Object Drawing, Industrial Designs, etc.
" — Maps, plain and colored, Raised Maps—putting on papier maché, on slates, or cardboard.
5. Specimen pages showing exercises, or answered papers in the various subjects of the High or Public School course.
6. Natural Science—Specimens of Plants, Woods, etc., or Mammalia Birds, etc.
7. Photographs—Buildings, Grounds, Laboratories, Gynnasiums, etc.
8. Miscellaneous—Any special work of the pupils, as apparatus, etc.

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TORONTO, FEBRUARY 1, 1893.

Vol. VI.
No. 18.

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* Editorial Notes. *

At the request of Mrs. Solomon Thatcher, Jr., Chairman of the Board of Lady Managers, created by Act of Congress of the United States, to have general charge and management of all the interests of women in connection with the Exposition, we have much pleasure in publishing the following announcement which will be of interest to all lady teachers who propose to attend the Columbian Exposition. The Board of Education of the Public Schools of Chicago have tendered to the Board of Lady Managers, under certain conditions, the use of the public school buildings of Chicago, free of charge, for the entertainment of the lady teachers attending the Columbian Exposition during the months of July and August. The buildings set apart for the use of the lady teachers are magnificent structures of brick and stone, situated in pleasant grounds, many of them ornamented with shade trees. They contain from twelve to fifteen large rooms each, and are well ventilated and lighted. These rooms are approached by wide staircases and well lighted halls. Each room will accommodate from twelve to fifteen teachers, and will be furnished with single wire spring cots, mattresses, pillows, covers, chairs, tables and simple toilet necessaries. Most of the rooms have toilet rooms adjoining. Each teacher will furnish her linen and soap. One large room in each building will be set apart as a reading-room, where friends may meet,

parties gather for the Exposition, and for teachers' headquarters in general. Each building will be under the personal care of an excellent matron, who will devote her time to the comfort and safety of her guests. A trusty janitor and maids will be employed. The buildings have been selected with reference to their convenience to the Exposition grounds; some will be within easy walking distance, others on cable street lines connecting with it. Restaurants will be abundant in all parts of the city during the Fair. Most teachers, however, will take one or more meals each day at one of the numerous cafes within the Exposition grounds.

These School buildings have been tendered free of charge for the use of the lady teachers; certain necessary preliminary expenses, however must be incurred—the buildings must be furnished and prepared as dormitories, desks must be removed; the buildings renovated, cots, chairs and simple toilet necessities provided; insurance must be paid and ample bonds given for the return of the buildings in good condition. To meet these expenses memberships will be issued to teachers who desire the use of the dormitories. The certificate of membership will cost \$2.00, and is payable in advance with application. Certificates are transferable to teachers only. These certificates entitle the holder to lodgings in one of the school dormitories at the nominal rate of forty cents per day, and are good for a period not to exceed two weeks; at the end of that period time may be extended if vacancies exist. Payments for first week's lodging will fall due March 1st, 1893. Payment for second week's lodging due upon arrival.

As the number of school buildings is entirely inadequate to accommodate the great number of teachers who will desire to attend the Fair, it is positively necessary that application be made promptly. Accommodations can only be guaranteed to those who act at once. All orders for furnishings must be given by March 1st, therefore no applications for lodgings can be considered after that date. Rooms will be assigned in the order in which certificates are purchased. First applications will receive choice of time and will be allotted to buildings nearest the Fair grounds. Special efforts will be made to please parties of friends who may wish to obtain exclusive

use of entire dormitories. Schools will be ready July 2nd, and the time will be divided into terms of two weeks each, commencing July 2nd. In order to simplify details it is desired that each Superintendent, Principal, or some teacher selected by them, apply for whole number of accommodations required in his school or district; single receipts will be returned to him, filled out to correspond with names sent by him.

HOW TO APPLY.

Fill out application blanks and send to Mrs. Solomon Thatcher, Jr., Lady Manager and Chairman School Dormitories. Enclose with application draft, postal or money order, made payable to J. O. Curry, Treasurer. As soon as money is received receipts will follow. Enclose stamp with letter of inquiry. Upon the payment of first week's lodging, certificate assigning time, name and location of school will be sent, so that teachers upon arriving in the city, can go at once to their buildings.

All applications or other correspondence must be sent to Mrs. Solomon Thatcher, Jr., Lady Manager and Chairman School Dormitories, River Forest, W. Chicago, Ill.

WE regret that we shall be unable to announce the results of our Model Lesson Prize Competition, until the next number. The papers have been placed in the hands of two well-known School Inspectors, whose names will be a guarantee of competency and fairness. But the careful examination of such a pile of manuscript is no small task, and it is better that time should be taken to do the work thoroughly. We fully expect to be able to give the names of the prize-winners in our next number, after which we will immediately commence the publication of the successful papers.

IN reply to two or three inquirers, who have written to the "Question Drawer" department, we may say that copies of the School Act can be procured from the Education Department in Toronto, price fifty cents. There has been no change in the length of the Normal school terms. For information with regard to the books used at the Normal schools, the conditions of admission, the subjects required for First-class, or Senior Leaving examinations, and all official information of that kind, please direct to the Education Department. The printed circulars, etc., will, no doubt, be promptly forwarded, and candidates will thus have the latest information at first hand.

* English *

Edited by Fred. H. Sykes, M.A., EDUCATIONAL JOURNAL, Toronto, to whom communications respecting this department should be addressed.

THE BROOK.

A LESSON IN THIRD READER LITERATURE.

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BEFORE any attempt is made to teach a lesson on the literature of any selection like "The Brook," there should be a clear understanding on the part of the teacher as to the real value of the lesson as a literary product in itself, and then a definite purpose to develop just that particular phase of the selection which seems to him to be its essential constituent.

It is as a product of art that every literary selection should be treated, and let me add that no selection lacking some of the essentials of fine art should find a place in the literary curriculum of the higher forms of our Public schools.

Clearly, then, the method that obtains in the interpretation of a painting or a statue must obtain in the study of a poem; and the first and most obvious inference is that there should be a due regard for the *tout ensemble* of a piece before any attempt is made at the minutiae of analysis.

It is this general view of the whole which affords the real essence of any work of art, which decides the distinctive characteristic of this or that poem for instance, and superadds it to the qualities which it has in common with other specimens of the same class.

Now, then, what is the essential element in the literature of "The Brook," and what are the features which it has in common with other literary selections? In other words, what should be, first, the essential aim, and second, the whole aim of the teacher in developing the lesson?

Something like the following has suggested itself to my mind as a qualitative analysis:

1. To cultivate the imaginative faculty and some of the higher emotions through the interpretation of the æsthetic element in the piece.

2. To gain some insight into the author's relationship to external nature.

3. To train the language faculty through the study of the diction.

4. To impart a certain amount of positive knowledge of locale and environment.

5. (Which may be said of any lesson worth committing to memory.) To train the memory by committing verbatim.

It is not difficult to see that the first aim mentioned above is the distinguishing one. In fact, it is so far the predominant aim that all the others are but as means to that end. And the execution of this leading purpose should result (1) in giving a key to the interpretation of visible nature; (2) in imparting a sense of one or two very important universal, not to say moral, truths; (3) in teaching the inner spiritual meaning of some of the simplest things in nature.

Having settled upon the leading aim of the lesson in relation to the other aims, it remains to be seen what method must of necessity be adopted in order to secure its proper execution.

Clearly, it will not do to begin with a drill on the force of epithets or phrases unhappily still too common a mode of procedure. Still less will it avail to begin by showing the grammatical function of the various parts of the stanzas, a fatal error which the writer confesses having made in the early part of his experience.

"How, then, shall I begin?" exclaims the would-be literary anatomist. "I have it. I will begin by asking the subject of each stanza in succession, and having settled that these are correct by an examination into the meaning of each sentence, etc. I will piece these together and require the pupils to write a neat little essay on 'The Brook' after the lesson is over."

And I confess that this seems to me the least pernicious of all the methods of introduction mentioned above. Unfortunately, however, it happens that this method will apply with much more satisfactory results to the study of Herbert Spencer's "Data of Ethics" or Burton's "Anatomy of Melancholy."

No, we will not scout the poetic idea by any such summary violation of the canons of the art. Nor

will we join hands with our ancestral pedagogues who triumphantly evaded every difficulty by religiously inquiring of Tom, Harry or Kate, the page, title, number and author of the lesson in routine before asking one of the pupils to read orally the first stanza as a preliminary to the study of the literature of the lesson.

None of these methods will suit. They have the all too lamentable sanction of custom, but will not, we fear, pass with our scientific age.

True science teaches her pupils to begin at the beginning and end at the end. The beginning here is the brook, not "The Brook." Let us begin with the brook. And here let me say that the very best way would be to don hats, lay aside books, and find the brook.

As this perfection of all method is impracticable, however, it remains to settle upon the next best thing in order. Now for the brain of a Mahomet. Happy thought! If we cannot go to the brook we can at least bring the brook within reach.

There are few children so destitute of imagination that they cannot assist the teacher in getting the mental picture of a brook. Most of them will be familiar with the banks of the old creek in the hollow, or the little river over the hill, or failing in this, the big ditch on the other concession. Very well, then, with these rude materials it will be quite possible to construct a brook.

It will not be difficult for an interested teacher to take these fragmentary conceptions and fuse them with his own larger conception, in order to give a sufficiently fair representation of the visual scene in the author's mind.

This may be supplemented by pictures, or if possible, a rough black-board sketch.

Having done this it will be necessary to work up to the conception of the brook as a living thing. The pupils will readily imagine that its ceaseless murmuring is a voice, and that it is speaking a message, or singing a song.

Then, with every book out of sight, by questioning if may be got from the class that the word "I" must be used if the brook is speaking or singing about itself. Next, in a similar way, get from the class that the most natural question which the brook might answer would be one concerning its source. In this way develop the words "I come from," and write them on the board. Proceed in this way to get such words as *coots, fern, etc.*, using no word until it has been seen to be necessary and in each case writing the words on the board as they occur until the stanza has been completed *without the aid of the book.*

Then require some pupil to read the stanza orally from the black-board, or if preferred, let all read it silently. Proceed in this way with two or three stanzas. The third stanza lends itself very readily to this independent treatment. Did space permit it it might be shown that every idea and every important word in the stanza may be developed in this way without so much as a glance at the book or the telling of a word.

After the third stanza has been formed by the pupils for themselves they will be able to catch the spirit of the true interpretation of each stanza, and will be able to proceed with books open to the study of the following stanzas.

Whenever it is seen, however, that pupils are relapsing into textual routine, every book should be shut and a stanza or two developed by the pupils for themselves. This part of the method will embrace the execution of the first and second aims given above. The lesson should then be gone over again; this time for the particular study of the words used. Synonyms should be given, both the local and general force of epithets shown; figures of speech fully developed, and more minute descriptions of the environments secured.

The lesson should then be gone over a third time for the sake of the versification. In this special attention should be paid to the character of the metre, the musical effect of alliteration, the jingle of the rhyme, and the effect of repetitions.

When all this has been done it will be quite in order to require a neat essay written on "The Brook" in the third person, the brook being the thing spoken about rather than the speaker.

The lesson may be aptly concluded by requiring some of the most beautiful and expressive stanzas to be committed to memory, and a partial test of the pupil's appreciation of these or the oral reading of any part of the lesson.

Treated in the above manner such a selection

would, of course, cover two or three or even four distinct lessons, but when completed will be of more value to the pupil in the formation of a pure literary taste and the cultivation of a love for the beautiful than whole screeds of patchwork analysis, the worst feature of which is that the culture which it secures is in inverse ratio to the time spent in its prosecution.

APPENDIX.

Treatment of third stanza (with closed books):
 "What does the brook do?" Ans. "It flows."
 Write the two words, "I flow," on the board.
 "Where does the brook flow to?" Ans. "To the river."
 "Do all little creeks and brooks flow into rivers?" Ans. "Yes."
 "If they do, what will happen to the river?" Ans. "It will get full."
 "Very full?" "Yes."
 "How full, perhaps?" Ans. "Till it runs over."
 "What word means running over?" No answer.
 "What do you call the upper edge of a cup?" Ans. "The brim."
 "If the cup were so full that the water ran over the brim, what would you say about the cup?" Ans. "It is brimming full."
 "What kind of river may you call this, then?" "A brimming river."
 Write the words on the board:

"I flow
brimming river."

"What does the brook flow for?" Ans. "To join the river." Write down l. 2,

"I flow
To join the brimming river."

"Does it get there?" "Yes."
 "Does it stop then?" "No."
 "What does it do?" "Keeps on going."
 "Does it never stop?" "No."
 "How long will it flow then?" "For ever."
 "What may the brook say of itself then?" "I go on for ever."
 Write these words on the board. Similarly develop every idea and word in l. 3 writing it down when secured and then supply the rest of l. 1.

THE NEW-MOWN HAY.

EVERY one knows the beautiful rendering Tennyson has given in "Lord Burleigh" of the famous incident in the history of the Cecil family. Those who are interested in the dead laureate's version will find some pleasure in reading the following village-version of the same incident. It is printed in an old volume entitled, *Ancient Ballads and Songs of the Peasantry of England*, edited by Robert Bell. The editor notes that "the adventure has, strangely enough, been made the subject of one of the most romantic of Moore's 'Irish Melodies,' viz., 'You Remember Helen, the Hamlet's Pride.'"

As I walked forth one summer's morn,
 Hard by a river's side,
 Where yellow cowslips did adorn
 The blushing field with pride;
 I spied a damsel on the grass,
 More blooming than the May,
 Her looks the queen of Love surpassed,
 Among the new-mown hay.

I said, "Good morning, pretty maid,
 How came you here so soon?"
 "To keep my father's sheep," she said,
 "The thing that must be done:
 While they are feeding 'mong the dew,
 To pass the time away,
 I sit me down to knit or sew,
 Among the new-mown hay."

Delighted with her simple tale,
 I sat down by her side;
 With vows of love I did prevail
 On her to be my bride:
 In strains of simple melody,
 She sung a moral lay;
 The little lambs stood listening by,
 Among the new-mown hay.

Then to the church they went with speed
 And Hymen joined them there;
 No more her ewes and lambs to feed,
 For she's a lady fair:
 A lord he was that married her,
 To town they came straightaway;
 She may bless the day he spied her there,
 Among the new-mown hay.

✻ Hints and Helps. ✻

HOW TO SECURE ATTENTION.

1. Show an interest in the subject you teach.
 2. Be clear in thought and ready in expression.
 3. Speak in your natural tone, with variety and flexibility of voice.
 4. Let your position before the class be usually a standing one.
 5. Teach without a book as far as possible.
 6. Assign topics promiscuously.
 7. Use concrete methods of instruction when possible.
 8. Vary your methods.
 9. Determine to secure attention at all hazards.
- Edward Brooks, in *The Western Teacher*.

A SPELLING LESSON.

Did you ever have occasion to stop writing and look at the dictionary to see how to spell a word ending in *cede* or *ceed*? Try this test and then measure your work by the dictionary; finish each word by adding the proper syllable:

- pre.....
- inter.....
- suc.....
- con.....
- se.....
- pro.....
- super.....
- ac.....
- ante.....
- ex.....
- re.....

If you find on trial that you have missed any of the above, or if your upper class pupils miss them, learn and teach this fact: Only three words end in *ceed*. They are *exceed*, *proceed* and *succeed*. The word *supersede* is the only one that ends in *cede*.
I follows *e* when preceded by *c* or when sounded like *a*, as in *neighbor* and *neigh*.—*Ex*.

THE RAISING OF HANDS.

I do not know to what extent the custom prevails in other places, but in a city I wot of, there is a strong current in favor of "raising of hands" in recitation. That is, the teacher asks a question, all who can answer it raise their hands, one is called upon, and the hands are then supposed to be lowered. Often, in fact, they are not; the zeal of the owner, his wisdom struggling for an opportunity for utterance, leads him to wave his arm violently, even after the pupil called is reciting; any sign of failure or hesitation on the part of the luckless wight calls forth more pronounced and frenzied hand-waving. It is difficult to see what educational value there is in this performance, and yet teachers have been known to pride themselves upon the affair, and to say "My schools are always noted for their raising their hands."

- The custom has several evident disadvantages:
- 1st. It causes a loss of time. The teacher waits for the hands to be raised, takes a survey of the school to see whose hands are up, and whose are down, finally selects some one to recite. Why not let the name follow immediately upon the question without loss of time?
 - 2nd. In many cases it leads to disorder and confusion.
 - 3rd. It embarrasses timid pupils who are struggling to recite.
 - 4th. It leads to deception and dishonesty, since pupils will often raise their hands when they do not know the answer, either from a hope that their lack of knowledge will not be found out, or else from a desire to help the school to "show off" before visitors.
 - 5th. It is a useless expenditure of nerve power and bodily strength that would be better spent in some profitable way.
- I do not wish to say that pupils should never be called upon to raise hands in recitation. The practice is occasionally useful in calling for the "division of the house" on some knotty point. It is the steady, pernicious, routine use of the plan that is condemned.—*The Practice of Education*.

SOME HINTS.

BY E. K.

TARDINESS.

PLACE on your black-board a constellation of twenty bright stars, made with yellow crayon. Erase one for each tardiness. As they disappear each one left grows more precious. The pupil who causes one to disappear will often be moved to tears—Result—Tardiness will diminish.

TO INTEREST THE PARENTS.

Write on the board an invitation to the parents to visit your school at some particular time. Have each pupil copy it, and then sign your name to it and have it taken home.

See that every thing about the invitation is correct, as it is also a language lesson.

As a souvenir of the occasion, have each pupil prepare a set of papers showing his work. The cover may exhibit his skill in drawing designs. Let all be arranged with care and taste.

Result.—Greater interest in work on the part of the pupils—better work done—the parents interested and the teacher encouraged.

THE PERFECT LESSON-BOOK.

A successful teacher has this plan. She makes a book of different colored muslin leaves, pinks the edges, covers it with heavy paper, and marks it in gold letters, "Perfect Lessons."

In this book she pastes the short lessons in spelling, numbers and language of the Primary class.

It is an honor not to be expressed in words to have a paper in this wonderful book.—*Popular Educator*.

SNAP IS NEEDED.

THERE is no place in the world where *snap* is more needed than in the school-room. A teacher needs it on his way to school; he sets an example by the way he moves along; what sort of a man he is appears by his movement in the street. He should walk well, with head erect and shoulders thrown back like a man, and a cultured man at that.

He needs *snap* to make his external appearance as becoming as possible. His clothing and shoes should be nicely brushed, his linen should be white, his nails should be carefully cut and clean, his hair properly arranged, and teeth brushed, and thus show that education has had an effect upon him.

Snap is needed in your school work. Don't sit in your chair for an hour at a time. Let your style of sitting there exhibit activity. Sit upright; don't lean on your elbows. Insist that your pupils shall sit in a good style, too. When you stand, stand properly; don't lean up against the side of a house, door, or desk; stand erect.

Snap is needed in conducting your classes. Have your pupils walk properly to the recitation-seat; have them wait there, standing, for your direction to sit, unless they can take their places properly without. When a pupil's name is called, see that he rises promptly and looks you in the face. When he goes to the blackboard see that he arranges his work neatly and evenly. Have it copied until it is right. When you recite or explain, have *snap* enough to do it better than any one else; be a model when you undertake to do a thing.

Have the *snap*, when disorder begins, to repress it at once. Disorder originates in one person generally; find that person out, and put an end to his disturbing influence.

Have *snap* enough to watch your own influence on the school, and see whether you are the cause of the order or the disorder. Watch your tones of voice; see whether you "get mad" or not; see whether you are respected or not; see whether you speak harshly or not; see whether you use the same language you would if a visitor were present—if you don't, something is wrong.

Have *snap* to pursue a course of study just as earnestly as you want your scholars to. Do not go home to lie stagnant and unprogressing. Select something, and go forward, go forward. But do not forget to take hold of current events. Discuss these with your pupils day by day. In fine, have *snap* enough to be a *live*, progressive teacher, instead of a dull, machine teacher.—*Pennsylvania School Journal*.

For Friday Afternoon.

THE BOYS WE NEED.

HERE'S to the boy who's not afraid
To do his share of work;
Who never is by toil dismayed,
And never tries to shirk.

The boy whose heart is brave to meet
All lions in the way;
Who's not discouraged by defeat,
But tries another day.

The boy who always means to do
The very best he can;
Who always keeps the right in view,
And aims to be a man.

Such boys as these will grow to be
The men whose hands will guide
The future of our land; and we
Shall speak their names with pride.

All honor to the boy who is
A man at heart, I say;
Whose legend on his shield is this,
"Right always wins the day."

THREE FISHERS.

THREE little fishermen, down by the bay,
Went on a voyage one sunshiny day;
Dick had the bait in a pink china dish,
Ted had a basket, to bring home the fish,
And Tommy, the captain, went marching along
With a gold-headed rod on his shoulder so strong.

Three little fishermen, out on the bay,
Laughing and shouting went sailing away,
Sailing away with the wind and the tide,
And the little waves danced as they ran by the side;
But the worms wriggled out of the pink china dish,
And the gold-headed rod only frightened the fish.

Three little fishermen, out on the bay,
Weeping and wailing, went drifting away,
Till a grimy old oysterman brought them to land,
And set them down safe in a row on the sand;
But the gold-headed rod, and the pink china dish,
And the big willow basket were left for the fish.

—Emily Huntington Miller, in *Our Little Ones*.

THE TWO BIRDS.

LIZZIE WILLS.

I WANDERED through the woodland,
And straight before my view
Appeared (I thought to clutch it),
A bird of brilliant hue.

It fluttered just before me,
Its feathers gleamed and shone;
I longed to catch and hold it,
It lured my footsteps on.

The path was strewn with flowers,
Their fragrance filled the air;
I passed by all, unheeding
Their wondrous beauty rare.

The swift-winged hours were flying,
My tasks were still undone;
The bird still kept before me,
The prize was not yet won.

I turned my footsteps homeward,
To duty bent my mind.
A trill of sweetest music
Came floating on the wind;

And through the open window,
As flying to its nest,
Another bird came singing,
And nestled in my breast.

It never left my dwelling,
But sang both day and night;
It sang through hours of darkness,
It sang through hours of light.

It filled my life with music,
It drove out all annoy.
The first bird's name was Pleasure,
The last bird's name was Joy.

January, 1893.

The Educational Journal.

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A JOURNAL DEVOTED TO LITERATURE, SCIENCE, ART
AND THE ADVANCEMENT OF THE TEACHING
PROFESSION IN CANADA.

J. E. WELLS, M.A. - - - - - Editor.

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TORONTO, FEBRUARY 1, 1893.

THE MINISTER OF EDUCATION ON
ENGLISH AND CONTINENTAL
SCHOOLS.

THE Minister of Education has returned from his prolonged tour in England, France and Germany. Our readers will be glad to know that the primary object of his trip has been in a large measure attained, his health being very much improved, if not fully restored. From a published interview we learn that Mr. Ross has been killing two birds with one stone; studying the school systems and methods of the countries he has visited, as well as seeking health in rest and recreation. He finds that the school-rooms in England are not so comfortable or cheerful as those in Canada, and he thinks that the English teacher has less freedom, less scope for the exercise of individuality, and is more under the restraint of departmental regulations, than the Canadian. This may surprise some of our readers, but it must be remembered that the Public school, and more particularly the free Public school, is but in its youth in the Mother country. Payment by results and the baneful influence of the educational code are felt to a

depressing degree by English teachers, who realize that the influence of these methods is detrimental to true teaching. Rapid progress is, however, being made in the right direction.

Mr. Ross is of opinion that there is greater activity at present in English educational circles than ever before, particularly in the line of technical schools. There is no organization of the secondary schools in England such as we have in Canada. Less attention is devoted to history and literature than with us, and the work in grammar is more technical; it is treated more as it was in our schools twenty years ago. The fact is, we suppose, that the native English conservatism has its influence, and the ideas of the new education have not yet taken hold upon teachers and educational authorities, as they have done in America. But English reforming methods are sure if they are sometimes slow. Having entered upon the path of progress it is safe to predict that the day is not far distant when England will be foremost in the use of the most comprehensive and enlightened educational methods.

For first-class work, however, the German schools are superior to any I know of on the other side of the water. The drill is a great feature in these schools. The average attendance at German schools is higher than in any country in the world. I suppose compulsory legislation and the severe training imparted by their system does that.

So Mr. Ross is further reported by the interviewer. We suppose that the juxtaposition of the first two sentences is accidental. It cannot be that our Minister of Education regards the extent and severity of the drill as marks of superior excellence. Much attention to drill may be suitable to, as it is characteristic of, a nation which is largely a great military machine, and whose mode of government has a large admixture of the personal and aristocratic elements. But it can hardly be conducive to first-class educational work. Its tendency, educationally, must necessarily be to mechanical uniformity rather than to the development of the individuality which is the natural outcome and the true goal of the best educational methods.

One result of the Minister's observations has been, evidently, to lead him to the conclusion that our Canadian secondary schools will compare very favorably with those of Great Britain or the continent. We see no reason to doubt that such is the fact. In England the secondary schools, which are now largely voluntary and necessarily inadequate, will, Mr. Ross thinks, be organized and made more efficient if the present government continues long enough in office. No opinion is reported in regard to the

working of the German gymnasium. For rigid classical drill, they probably surpass any secondary schools to be found elsewhere, but in the use of the most stimulating educational methods we have an impression that many in the United States and Canada are superior.

ADVICE WANTED.

A CORRESPONDENT writes us as follows:

Will you kindly inform me through the columns of your valuable periodical, of a good method to deal with a girl aged fourteen, who after many attempts to get her to answer distinctly in the class, still does not do as required? I have tried correcting in the class, correcting privately, requiring to repeat answers, and lastly, scolding; but all have failed. The girl is of a sensitive and stubborn nature, and is rather clever. I have never used corporal punishment in any case with her yet. How would deprivation of recitation suit?

The case is a somewhat difficult one, though we do not suppose that similar cases are rare. Such cases try the patience and tact of the teacher, especially if he or she be lacking in experience. We do not know whether such is the fact in this instance or not. It is quite likely that some of our readers who have successfully coped with difficulties of the kind described, may be able to suggest a practical way of dealing with them, and we shall be glad to have them do so, for the benefit not only of our correspondent but of others who may have similar difficulties. Meanwhile we offer an observation or two which may possibly be of service.

The first thing to be done is, of course, to diagnose the case, with a view to finding out the exact character of the trouble. Is it bashfulness? Is it timidity? Is it nervousness? Or is it wilful obstinacy? Everything, so far as the method of treatment is concerned, depends upon the answer to these questions, since the treatment which would be wise and just in one case, might be exceedingly unwise or even positively cruel in another. Our correspondent has evidently not made up his mind very clearly on these points. He says the pupil is of a "sensitive and stubborn nature." But she can hardly be both, for sensitiveness and stubbornness are qualities so very different in kind as to be almost incompatible. Supersensitiveness, it is true, may be so deeply wounded as to develop into something very like stubbornness.

If our correspondent will permit us to say so, we think it probable that he failed in the first instance to establish the right understanding between his pupil and himself, before calling upon her to take part in the class-answering. It may be that she is constitutionally timid, or, which is pretty nearly the same thing, lacking in self-reli-

ance. We have known pupils of both sexes, who were really so terrified at the sound of their own voices that it was with great difficulty they could bring themselves to speak above the lowest notes. If the pupil in question did not attend school at an early age, when such difficulties are least felt and most easily overcome, we should be inclined to suspect that this is really the source of the trouble. In that case the gentlest dealing is required. Those who are naturally bolder and more self-confident can scarcely realize how much it may cost one of a different nature to elevate the voice sufficiently to make herself distinctly heard by a class, or a considerable number of persons.

But all this is only shooting in the dark, for we have not the means of forming an opinion as to the true cause of the difficulty and that must be known before advice can be intelligently given. We should advise, however, to be very slow to attribute obstinacy or ill feeling of any kind to such a pupil. Rather assume some more charitable reason, and let the effort be to gain her confidence and goodwill. Any reform thus wrought will be genuine and lasting, while even the temporary success of harsh measures is likely to be attended with unpleasant consequences in other respects, or at least to create such a state of feeling on the part of the pupil as will effectually put it out of the teacher's power to bring to bear any influence for good.

Above all, and in any case, we would say: Do not reprove in the presence of the class. Do not scold. And as to corporal punishment, the very suggestion of such a thing in the case of a girl of fourteen is almost an outrage. If kind reasoning and remonstrance in private, fail, and the teacher is fully convinced that the case is one of dogged obstinacy, the natural and fitting punishment is that suggested—suspension from the class, or even from the school, until a promise of amendment is freely given. Pupils at that age who will not conform to reasonable and necessary school conditions do not deserve school privileges. Of course, parents and trustees should be consulted before so serious a step is taken.

ARBOR DAY.

IT is yet early, but not too early, to begin to think about Arbor Day and the best mode of observing it. A correspondent justly remarks that the helpful hints we have hitherto been able to give on tree-planting, etc., have reached the teachers rather late to be useful. He suggests that this day might be and should be turned to better account than has hitherto been done in many rural schools, and that to this end it would be well to have the sub-

ject thoroughly aired in the columns of the JOURNAL. Many teachers, he says, have now had experience in the work and are, no doubt, in possession of information thus learned that would prove very helpful to many other teachers of smaller experience. The subject he rightly deems of great importance from an educational point of view, since it is impossible that the best development of some of the higher qualities of the pupil's nature can be gained amidst the untidy and unartistic surroundings yet to be seen in too many school-yards in the rural districts.

We thank our correspondent for his suggestion and shall be very glad, indeed, if some of those who have been successful in getting pupils, parents, and trustees interested in tasteful improvements and in making the day both interesting and profitable, will give our readers the benefit of their thought and experience. If any are disposed to oblige and help us in this matter, will they kindly begin as soon as convenient to send us in brief notes, hints, bits of useful information, jottings from their own experience, etc. From these we will select and arrange to the best of our ability such a series as, combined with exercises and selections culled from other quarters, may enable us to make up an Arbor Day number much more varied and practical than we have hitherto been able to present to our readers. We will take care, too, that the number is issued at a date sufficiently early to enable our subscribers to make the fullest use of its contents in arranging their programmes. We invite Arbor Day contributions.

DURING the past summer, courses of instruction were offered by professors and instructors of Cornell University in Greek, Latin, French, German, English, Philosophy, Mathematics, Physics, Chemistry, Botany, Drawing and Physical Training. In all there were a hundred and fifteen in attendance, representing twenty-two states and territories, Canada, and Japan; and of these far the greater part were teachers and advanced students. The private venture, begun so auspiciously, has now taken a more permanent form, and the school has been made an integral part of the University. The list of courses offered for the summer of 1893 is greatly increased, and a number of professors, distinguished in their respective departments, have been added to the corps of instruction of last summer.

THE Directory of the World's Columbian Exposition has decided that a series of World's Congresses be held at Chicago dur-

ing the summer of 1893; namely, of Art in the month of May, of Religion in June, of Education in July, of Law and Government in August, of Labor in September, and of Agriculture and Commerce in October. The management of the special Congress on Education in Schools, Elementary, Secondary, and Superior, has been assigned by the World's Congress Auxiliary to the National Educational Association of the United States. A Committee of Arrangements has been appointed by this body, under the Chairmanship of the Commissioner of Education for the United States, for the completion of all details and the invitation of Delegates. The Congress will be held in Chicago during the week beginning July 25th, 1893. It is proposed to have two general sessions, both in the evening, and meetings of the several Departments in the forenoons and afternoons.

WE are not surprised that Inspector Hughes' scheme for the appointment of twelve supervising principals to have the general oversight of the Toronto schools, is decidedly unpopular with the teachers, and has aroused strong opposition. The more we think about the plan the stronger the objections appear to us to be. Not only would it destroy or greatly impair the usefulness of the principals, so appointed, in their own schools—and the city schools can poorly afford to lose twelve of their best principals—but it must inevitably have the effect of weakening the authority of every one of the "supervised" principals over his or her own pupils. This last is a most important consideration. It is hard to conceive of a more difficult and anomalous position than that in which these principals would be placed, while retaining the nominal headship of their respective schools, they would actually be reduced to the rank of subordinates whose decisions were always likely to be overruled. Troublesome pupils would soon recognize the fact, and would, in many cases, make the nominal principal's life a burden to him. Responsibility without commensurate authority places the person who carries it at an unfair, and often humiliating, disadvantage. There is too much of the "machine" about the new plan.

ANOTHER educational post to be vacated is that of Commissioner of Indian affairs; this has been held with honor by Gen. Morgan; he has disappointed almost everybody by his statesmen-like grasp of the situation. He is the first man who has grasped the situation. It would be a good thing for the Indian youth if he remained in office. This post is more vitally important than the Educational Bureau.—*N. Y. School Journal.*

* Special Papers. *

SHOULD AGRICULTURE BE TAUGHT IN OUR PUBLIC SCHOOLS?*

IN attempting to address you upon this subject I find myself beset with difficulties, one of which is the fact that the subject has already been ably presented to all present by way of a circulated address, and another, and by no means the least, is that many teachers have formulated opinions on the subject, and are not open to conviction, so that when the subject is approached many are apt to assume an easy posture with these sentiments: We have heard all that before; we know that rut is easy; work is hard. To make then what I consider a very important subject presentable, I have bestowed a little care, although to be entirely original in matter or in form is next to impossible on any subject.

In the outset I may remark that by the teaching of agriculture, I mean not the attempt at imparting a detailed knowledge of the many subjects involved in the study of the science; but the presentation of a few of the leading principles, leaving details for after life.

In the first place, I contend that agriculture should be taught in our public schools, if for no other reason, from a historical point of view, as marking an epoch in man's advancement. We note in our reading of history several stages well defined: (1) Hunting and fishing; (2) pastoral; (3) agricultural; (4) trades and commerce; (5) industrial. The progress in agriculture stands out prominently as one of the greatest civilizing agencies.

Let us take a brief glimpse at history, and note how national advancement and everything worthy of study in a nation centres around and branches out from the history of agriculture. When Greece and Rome flourished, that is, when patriotism and virtue excelled in those nations, we find the cultivation of the soil held to be an honorable and all-absorbing pursuit. In those days we find Cato, the renowned, deeming himself highly honored in being called an agriculturist. Cincinnatus, when the messengers from the Senate came to offer him the dictatorship, was found in the fields ploughing, and when he had fulfilled his term of office returned at once to his farm. But as agriculture was neglected for other speculative pursuits, the people declined mentally, morally and physically and the nation sank. We cannot think of the rise or fall of a single nation but such change was preceded by a rise or fall in the interest manifested in agriculture.

Take a look at Britain, a country that outstrips almost any other country in the world in agriculture, and note her position in other arts and industries.

Let us take a brief look at the advancement of agriculture in Britain, and see how hinges on that the whole history of the nation. The Romans for military purposes opened roads through the country, and gave an impetus to the then rude attempts at the cultivation of the soil, and learning was advanced. Alfred the Great and the monks of his day encouraged agriculture, and around them education and religion flourished. The Saxons devoted much care to the encouragement of agriculture, and peace, liberty and good government soon prevailed over a contented, prosperous and enlightened people.

From the time of William the Conqueror to the reign of Elizabeth there was not a free soil for a free people, and we find during this period social disorder, crime and beggary to be the result of a down-trodden agricultural class, until Elizabeth in her wisdom passed the poor laws, and by removing some of the restrictions imposed on the agricultural class, infused new life into the nation. The social disorders to a great extent vanished; prosperity followed, and from amidst the warring elements, so patriotic did the spirit of the nation become that ere long neither Spanish wealth nor Spanish religion could induce a single Englishman to betray his country.

But some may remark that all this was the result of the new learning, or due to the influence of the Reformation. But what caused the new learning or the Reformation but the thoughts of

men being directed towards agricultural pursuits? Columbus discovered America, and the stories then told of the rich lands in store for all fired all Europe with enthusiasm; a desire for knowledge revived learning and multiplied books, and the new learning, new religion and the Reformation followed in quick succession.

We observe the same all through history—advancement in liberty and learning always in proportion as agriculture is advanced. And what is observable in reference to Britain is noticeable in Britain is noticeable in the case of any other nation.

Just view unhappy Ireland with an agricultural class bound down to a position worse than slavery by their task-masters, an opulent, autocratic, and to a great extent dissipated aristocracy, and you see a picture which for a considerable time has had the sympathy of the whole civilized world.

Agriculture also occupies an important place in individual history. We know the cultivators of the soil constitute in every land the basis of society. You can hardly name a distinguished man in this or any other country who is removed from farm life by more than two generations.

Visit our colleges and high schools and you will find nearly all the distinguished students from the rural districts. Again and again has it been proven that no kindergarten-trained pupil can at all cope with one whose mind has been developed naturally amidst surroundings of rural activity and beauty.

Again. If then the advancement of agriculture is so important to the welfare of the country, it should be taught in schools to allay the feeling which is abroad to-day that it is a low and debasing pursuit. This is one of the reasons why so many of our young men are leaving the farm and flocking to our cities, one of the reasons why the legal, the medical and the teaching professions are overcrowded, so that it has become necessary to raise protective walls around them for the sake of the inmates, making time and money qualifications for admission rather than ability. The secret of this disgust is a preconceived idea now prevalent, that farming is a pursuit demanding no knowledge or skill. If it can be shown that this prejudice is baseless and that there is ample room in farm work for the introduction of modern scientific ideas, then this dangerous tendency will be combated. By directing the minds of our public school pupils towards the subject by way of story-telling, which would form the basis of exercises in composition, the true state of affairs could be presented to them. But some might ask, can it be shown that it is not low and debasing? Anyone upon investigation would certainly answer, yes. No occupation is more honored by God, none more frequently mentioned in the Bible, none more frequently referred to and honored by the great and good of all ages. We often read Shakespeare to see what he has to say about love and other passions of the human mind, but the great poet could be more profitably studied by noting what he has to say about rural life and beauty. In fact, Shakespeare, Milton, Longfellow, Thompson, Cowper, yea, I may say all literature teems with interesting and happy allusions to the man behind the plough. Why then should there be any necessity for children leaving our public schools with false ideas in respect to agriculture.

Again, it can easily be shown that there is ample room for the introduction of modern scientific ideas. Compare France with Spain—countries having equally natural advantages and enjoying the same religion. France, with a protected and encouraged agricultural class, and where the science of agriculture is most industriously taught by the government, figures in history as an active, progressive and powerful nation. Spain, with an unprotected, unencouraged husbandry, sunk physically, politically and morally, her only hope of recovery being in the signs of interest lately manifested in agricultural pursuits bearing fruit. France, by the dissemination of scientific knowledge by means of numerous schools, has, within the past few years, more than doubled the yield per acre of farm produce, and so favorably impressed has the Government become that it pays to foster agriculture that within the last year government banks have been established in every township, whereby farmers can secure the advantage of money at cheap rates. Flanders, with a soil once sterile, has, by the application of scientific knowledge, rendered the soil so productive that a five-acre farm has been found ample to support

a family of ten. And besides scientific study, the farmer of to-day, who is, to a great extent, politically and financially nobody, requires redress from a great many burdens imposed upon him. Combines must be overcome, legislation effected more in favor of honest toil, and many other problems must occupy the attention of the coming farmer, so that there is ample room for men of energy and ability to strengthen and exert all their faculties in the domain of agriculture.

A great many have the idea that the theories, such as would be taught in schools, are mere book learning and are not equal in practice to the wisdom derived from experience or handed down by tradition. This is a great error. What every such old sage regards as his own peculiar treasure of wisdom is in very many cases simply the theory of fifty years ago, which has percolated through various strata of humanity until it reached its present owner, who imagines it a new truth, whereas it is only a commonplace. To keep abreast of the age in farming, as in all things else, demands study and thought. What would be thought of the student wishing to qualify himself for the work of a physician who should despise present theory as impracticable and depend entirely on old methods and traditions? He certainly would have very little hold on public confidence in this day. What would be thought of the teacher who should depend on past theories and methods handed down to posterity, instead of being a constant reader, a constant thinker; laying hold of both past and present theories and making them part of the practical knowledge of the present? Need I answer? Such a physician, however, might succeed at least financially by toying with the cupidity and ignorance of many. Such a teacher might by stratagem eke out an existence, but the farmer of to-day must think and act. He must be a student and a worker. He must lay hold of present theories and make them part of the practical knowledge of the present, or incur the almost inevitable risk of being a slave, and, to a great extent, a failure. In this country twenty years ago scientific knowledge was almost unnecessary. All the husbandman had to do was to plough the field and scatter the good seed on the land, and the natural richness of the soil ensured a crop. Now the farmer has not only to sow, but he has to prepare, and in many cases to re-enrich the soil, and this requires study and thought, the application of science and the turning to account of new theories. Again, it would arouse interest in a pursuit which must of necessity be the life one of the majority of our public school pupils.

Some raise the objection here that class education should not be encouraged. To this we would reply that from the nature of things we cannot have too many tillers of the soil, and again a thorough knowledge of agricultural pursuits unfits none for the performance of any other duties he may be called upon to perform. Again, we observe that in agriculture, as in all trades and professions, progress will be proportionate to the thoroughness of our knowledge of the sciences and arts which bear on it. Through course of time, as our population increases, there must of necessity be an increase in the yield of the soil, and scientific improvement is the only avenue through which to arrive at this end. All the prosperous countries in Europe found it necessary to establish schools for instruction in scientific farming, and with good results. France at the present time is able to raise 700 bushels of potatoes to the acre, while we in the far-famed County of Waterloo consider 100 bushels a fair yield. Our situation, moreover, requires the education of all, as all have, or may have, land of their own; and all then direct the operations of the farm, and the instruction of all cannot possibly be done except in our public schools. Our already greatly exhausted soil requires to be restored to fertility. Shakespeare truly says: "If it were done when it is done, then it were well if it were done quickly." But how is the future farmer in Canada to know if his work be well done unless he is fitted in our public schools by having his mind directed towards the sciences which bear upon his work?

Is there any fear of our becoming like Turkey—a country naturally one of the finest in Europe, with rivers, as noble as our own St. Lawrence, rushing unimpeded towards the sea; valleys of land as fair as any in our own province, which, through neglected husbandry, are now overrun with a population little better than robbers, living in the moun-

*A paper read by Mr. John J. Skene before the Teachers' Association of Waterloo County.

tains; a country without a commerce, without religion, without a God? Who can answer? The hope, however, of our country lies in the fact that the young and progressive farmers amongst us are in favor of book-farming, and if they only knew how and what to study all would be well. There is at the present time, however, much scientific information scattered abroad through agricultural papers, to be picked up at intervals in fragments, but that is not enough. Before the mind can be prepared to appropriate this so as to make it of much account a few of the leading principles will have to be mastered, and details will follow in after life.

Besides these material ends, there is the mental benefit to be derived. We must admit that it is nearly impossible to make much of what is being taught in public schools interesting to the young. We also know that if pupils do not love their work very little progress is made. We speak much of proceeding from the known to the unknown, of presenting truths in the concrete rather than in the abstract, but out of necessity much of our teaching has to be done in the abstract. In agriculture, however, we can proceed more directly from the known to the unknown than can be done in the teaching of any other subject, thus making the pursuit of knowledge interesting to pupils. To interest pupils they must see something definite end to be gained in the study of a lesson; and in agriculture, as in no other study, we can start anywhere and give a lesson having a definite beginning, a definite aim and a definite ending, thus arousing interest in the subject; and, further, we can keep up the interest started by connecting that lesson with a series of lessons, having an easily perceived connection with one another.

The study of the subject becomes interesting and beneficial on account of the variety of subjects naturally introduced to the attention of the learner. This is an important point in the education of a child, for if no interest has been aroused in the pursuit of knowledge the time spent in school has for the most part been wasted. Our system of education is fast becoming too mechanical. We enter too much into details, deal too much in niceties, and thus kill rather than create interest.

Interest is also aroused by calling into play the observant faculties. In the study of agriculture the pupil is brought into immediate contact during all his wakeful hours with the school work, and is thus continually learning. By bringing the mind in contact with such a variety of subjects in such a natural way the tendency is to form as well as fill the mind, to aspire to activity as well as knowledge, hence the whole object of education is accomplished. Again, the study of agriculture would afford an excellent opportunity to teach by means of conversations between teachers and pupils, as almost any pupil could be intelligently drawn out on some of the many topics which might be suggested. Each lesson could not fail to call into account all the previous knowledge of the child, and fit the mind for the reception of more. And, lastly, the study of agriculture could not fail to create a love for the beautiful. Coming in contact with nature directly would have a far more powerful influence than being led there, as in literature, by ways often beyond the comprehension of the pupil.

In conclusion, if it is so that national prosperity depends largely on agricultural prosperity, that individual development depends upon the interest taken in agriculture, that scientific study aids greatly in advancing agriculture, and that the mental benefits to be derived would be great, no unimportant place should be given to the subject on our public school programme.

SCIENTIFIC TEMPERANCE INSTRUCTION.

LIZZIE WILLS.

THE following paper, explanatory of the department of Scientific Temperance Instruction, was read at the annual reception of the Toronto Central Young Woman's Christian Temperance Union by the President, Miss L. Wills:

A five minute paper does not give much scope for preliminaries, therefore I will at once proceed to the matter on hand.

For the sake of brevity I have divided my subject into two parts: first, Why scientific temperance is taught; second, What is meant by scientific temperance teaching.

First, Why scientific temperance is taught.

The great end and aim of the Woman's Christian Temperance Union is the total abolition of the manufacture and sale of intoxicating liquors. To this objective point all our labors tend. When we appealed for legislation to prohibit such a well-known source of crime and evil of every kind, we were told by our legislators that until the people are educated to demand prohibition our land must continue to groan under the burden of the liquor traffic. We were also told that, in order to stop the supply of any production, it is necessary to stop the demand for it. So the problem that lay before the W.C.T.U. for solution was: If, in order to get prohibitory legislation anent the liquor traffic, the people must be educated in such a manner that the demand for intoxicating liquor shall cease, how shall we reach the people and what shall we teach them?

After due deliberation, this solution was arrived at: The boys and girls of to-day are the people of to-morrow; we will teach them scientific temperance principles combined with Christian temperance principles, so that they may be able to give to every man that asketh them a physical and moral reason for total abstinence. With this end in view, the W.C.T.U. succeeded in having scientific temperance instruction placed on the curriculum of the Public schools; and to-day the great work of educating the people is going steadily on. We all know the value of early training; early impressions are lasting. If we can reach the minds and hearts of the young while they are plastic, and stamp upon them the facts concerning the evil effects of alcoholic liquors, these facts will leave an indelible impress that no after-teaching of a contrary nature can wholly obliterate or eradicate.

Second, What is meant by scientific temperance teaching.

When we speak of scientific temperance instruction, as a general rule we are met with this remark: "Oh! but scientific temperance, you know, is very difficult and uninteresting for children. Never was a greater mistake made. The term "scientific" alarms people, but the term is the only alarming thing about the subject. Children, even young children, sit as if spell-bound, listening to the fascinating story of "the wonderful house we live in." They are deeply interested in, and curious about its framework of bones, the manner in which these bones are formed, and the substances of which they are composed. They readily admit the wisdom and necessity of placing only good materials in a house which cannot be pulled down and rebuilt, but must stand as it is erected, for weal or woe; while they all agree in condemning the utter folly of the house-owner who, by means of tobacco and alcohol, puts unsound bones in his framework. They wax enthusiastic over the little builders (blood globules), who run busily along the passages (veins and arteries), bearing the materials used in the construction of the house. They are lost in admiration of the various kinds of machinery provided for doing the work of the house. The wonderful engine (heart), that pumps steadily on night and day, never ceasing supplying the power by which the rest of the machinery is kept going, and the breathing machines (lungs), that provide oxygen for the little builders, in order to keep them healthy, are never-failing subjects of interest. The kitchen (stomach), also claims a good share of attention; they are astonished to hear that they keep not only a cook (gastric juice), but also an assistant cook (pepsin). That they have a furnace (liver), and also a telegraphic system, with wires (nerves); and a manager (the brain), is intelligence that causes them to think with reverence upon the wisdom and goodness of the Great Architect—the Creator—God.

In connection with this they are taught the manner in which alcoholic liquors injure every part of this building. Not only the framework, but the machinery is injured by alcohol. It causes the little builders (blood globules), to shrink up by absorbing or drinking up the water in them. The pumping engine is driven so quickly by alcohol that it breaks down from over-pressure. When alcohol enters the kitchen (stomach), the walls get red and hot; then the cook (gastric juice), floods the kitchen to try and wash out the intruder, but alcohol seizes the assistant cook (pepsin), and holds it so that it cannot assist in getting the food properly prepared (digested); and when the meals are not cooked satisfactorily, as everyone knows, there will soon be trouble in the house. The fur-

nace (liver), gets all out of order by the use of alcohol; and the telegraph wires (nerves), are all loosened or unstrung by it also; while the manager (brain), either falls asleep in his office or gets too sick and stupid to understand the messages delivered to him.

This is what is meant by scientific temperance teaching, and if anyone still thinks this is uninteresting for children, let him tell this true tale to the first child he can reach, and be convinced, once for all, that scientific temperance instruction is one of the most enchanting subjects that children can be taught.

DISCIPLINE AND KNOWLEDGE.

THE acquisition of knowledge is not the principal end to be sought in a true and liberal education. The truth of this proposition is perhaps theoretically accepted, yet in practice it is almost universally denied. This may be easily verified by observing carefully the work done in our schools and colleges and the tests applied to show that the work required has been performed. The ability to pass examinations for promotion and honors does not, for example, depend upon the fine character the pupils have formed under the guidance of their teachers; nor upon the acquisition of habits and tastes by which the power and knowledge acquired can be rightly utilized and made to serve the highest good of the pupils themselves and of humanity. These are not the qualifications which will secure the highest honors in examinations as they are usually conducted. Not unfrequently do the highest honors go to members of classes lacking in all these qualifications, simply because knowledge alone is made the basis upon which such honors are bestowed. This is a great evil which must be corrected before our schools and colleges can yield the best and highest results.

A large waste of the pupils' time and energy is made in cramming into the memory useless details for passing equally useless examinations. Teachers know right well that in six months or a year after these examinations have been passed, the details which cost so great effort to acquire, must inevitably disappear from the mind. This is particularly true of the endless details which pupils are usually compelled to acquire in such subjects as arithmetic, grammar, geography, etc. The defence for this cramming process, in the face of the fact that these details pass so soon from the mind, is the mental discipline which the work performed affords. This, however, is a great mistake. No such mental discipline as is assumed is afforded. The act of acquiring knowledge which serves this end must be real and not simply apparent, as in this case. It must mean, not the cramming of forms and symbols into the memory, but the placing of the mind in actual conscious relations to existing entities, realities and phenomena. It must mean real personal experiences of what is, and not merely of the forms and symbolism which serve only to call what is into consciousness. This, however, is not always required to pass successfully what appear to be very formidable examinations. These can be passed by simply fixing in the memory, for the time being, what some text-book or lecturer has said upon the subject. Questions pertaining to the most profound problems in science, philosophy and language may thus be apparently answered, while the persons giving the answers may have failed, in any true sense, to construe in consciousness the realities which enter into and constitute the very essence of these problems. This condition of things grows largely out of the wrong conception, which commonly prevails, in regard to the true nature of knowledge and of the function of words.—*Principles of Education, M. MacVicar, LL.D.*

To will what God doth will, that is the only science that gives us any rest.—*Malherbe.*

THERE are books by the reading of which, were it but for half an hour, a youth may blight his imagination and darken half his life.—*Canon Farrar.*

THE thorns which I have reaped are of the tree I planted; they have torn me and I bleed; I should have known what fruit would spring from such a seed.—*Byron.*

THOUGH it be honest, it is never good to bring bad news.—*Shakespeare.*

* Mathematics. *

All communications intended for this department should be sent before the 20th of each month to Chas. Clarkson, B.A., Seaforth, Ont.

CORRESPONDENCE.

MR. M. sends the following question:—"Is it correct to read $\frac{3}{4}$ in this way, 'THREE OVER FOUR'; $\frac{a}{b}$ in this way, 'A OVER B'; $\frac{A+b}{c+d}$ in this way, 'A PLUS B OVER C plus D'?" Our answer is emphatically No! The word *over* is mathematical slang not authorized by good usage, not recognized by any text-book we have seen or heard of.

REWARD.—We will send by the next mail after receipt a mathematical book worth \$1.50 to the first person who will quote the exact words from any college text-book in our language giving the word *over* used as Mr. M. suggests. We will also send another mathematical book worth \$1 or more to the first person who will furnish proof that any mathematical *Professor* in any University of

Ontario reads $\frac{a}{b}$ as "a over b." These offers will

hold good for two months from the present date of this JOURNAL. Mathematics and slang have no natural affinity, and if this form of expression is used by any teachers in Ontario they must prepare a reasonable excuse for their departure from established usage. Why is *OVER* correct; How far is *a OVER b*? Why is not *b UNDER a* correct also? Why does *a* get *over b* at all? In recent books

$\frac{a}{b}$ is printed a/b to save one space in printing;

how much is *a* over *b* in that case? The word *by* is a legitimate contraction for "divided by," and has one definite, precise, and unvarying meaning, but how many meanings has the word *over*? WEBSTER gives *fifteen*, besides three or four more in special phrases; which one are we to select? Shall we say $\frac{1}{2} = 3$ and 2 over, is to be read, "14 over 4 equals 3 and 2 over?" We regret to learn from our correspondent that he has heard this SLANG used by college tutors and by High school masters, as well as by Public school teachers. If we are to have mathematics turned into the same kind of bear garden that grammar, philology, and psychology have already become, through the introduction of a multiplicity of variations in nomenclature, let us have formal notice of the change in our once serene atmosphere, so that sensible people may withdraw and spend their time on facts, thoughts, things rather than words and logomachy. We have reason to suppose that this bit of slang has found its way into thousands of class-rooms in this Province, and we are obliged to our correspondent for giving the opportunity to offer the above rewards.

MR. R. P. IRVINE, Cloverdale, B.C., sent four solutions to questions in the December number. We regret that extent of space on this continent should have caused his letter to arrive three days too late for the January number.

MR. W. J. SIMPSON, Principal of Richmond Model School, kindly sent solutions, all accurate, to all the questions asked for in the December number. All honor to the *true* workers who give freely without hope of earthly reward!

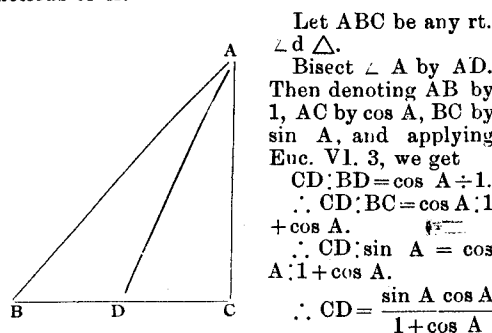
H.A.S., Eramosa, wishes us to solve the question: "Reduce .9 to a vulgar fraction." He says, "I always get it out to 1." So say we all; so mote it be. The question is interesting to those who wish to establish a distinction between ".999... ad inf." and " $\frac{9}{10} + \frac{9}{100} + \dots$ etc., endlessly increased." The limit in both cases must be 1. What is the difference, then, between the two forms of expression? Have we a more definite conception of "a number endlessly increased" than we have of a series continued "to infinity?" There is a whole system of mental science underlying each expression. Herbert Spencer on one side, McCosh on the other.

SCIENCE MASTER asks: "Will you please give some chemical calculations in the mathematical column occasionally?" We cannot give a definite promise. Only a small percentage of our readers

are engaged in studying or teaching chemistry, and besides, the Science Column of this journal takes up that subject specially. If there were any general demand for such work we might perhaps devote half of one number to science calculations. The chemical arithmetics are rather behind the times in some of their arithmetic, and it might not be presumptuous to hold the lantern for them now and then. Perhaps our correspondent had better send a number of definite examples to the Science Editor. Chemistry is now pretty well under the sway of mathematics, however, and like Electricity, Heat, etc., requires to be looked at from the mathematical point of view. The Periodic Law is the outcome of various applications of mathematics to chemistry. No science can reach its final development without the aid of mathematics, not even logic and philology;—the algebra of logic, and the arithmetic of philology, are well established.

MR. L. J. CORNWELL, B.A., Ingersoll Coll. Inst., gives the following geometrical solution of the problem:

—"To express the trigonometrical ratios of $\frac{A}{2}$ as functions of A."



$$\text{Now } \tan \frac{A}{2} = \frac{CD}{AC}$$

$$\therefore \tan \frac{A}{2} = \frac{\sin A}{1 + \cos A}$$

Similarly all other ratios of $\frac{A}{2}$ can be derived.

"*Prospera lux oritur.*" This year promises to be the most successful in our history, thanks to the valuable assistance of able correspondents. Whoever helps THE JOURNAL also helps himself or herself; and it is more blessed to give than to receive. Together we stand; divided we destroy the professional spirit, and *under-bid* one another in the worst paid profession of modern or ancient times. Let us co-operate.

THE HIGH SCHOOL PRIMARY, 1892.

ARITHMETIC, MENSURATION AND COMMERCIAL TRANSACTIONS.

1. (a) DEFINE and give examples of *quantity*, *unit*, *concrete number*, *abstract number*.

(b) When can concrete numbers be added, multiplied and divided?

(c) Explain the basis of our system of numeration.

(d) Show that a square number never ends in 2, 3, 7 or 8.

2. (a) Find the value of

$$\frac{1}{10^2} \times \left\{ 1 - \frac{3}{1} \cdot \frac{1}{10^2} + \frac{3 \cdot 4}{1 \cdot 2} \cdot \frac{1}{10^4} - \frac{3 \cdot 4 \cdot 5}{1 \cdot 2 \cdot 3} \cdot \frac{1}{10^6} + \frac{3 \cdot 4 \cdot 5 \cdot 6}{1 \cdot 2 \cdot 3 \cdot 4} \cdot \frac{1}{10^8} \right\}$$

to 8 places of decimals.

(b) Express as the product of powers of prime factors:—

$$\frac{11 \cdot 12 \cdot 13 \cdot 14 \cdot 15 \cdot \dots \cdot 38 \cdot 39 \cdot 40}{1^3 \cdot 2^3 \cdot 3^3 \cdot \dots \cdot 8^3 \cdot 9^3 \cdot 10^3}$$

3. A regiment of a thousand men, four abreast, and marching 3 feet apart, passes over a bridge 3 miles 44 yds. long in 56m. 10s. If each man takes 96 steps per minute, determine the length of each step.

4. A dealer shipped 200 barrels of apples to Liv-

erpool; the average cost of the apples was \$3.75 per barrel; for what sum must he have the apples insured at $\frac{3}{4}\%$ premium to guard against all loss, in case of shipwreck, his other expenses being \$75?

5. A and B are two railway companies that pay respectively $4\frac{1}{2}\%$ and $1\frac{3}{4}\%$ per annum on their \$100 shares. When the price of a share in A is $101\frac{1}{4}$ and in B $32\frac{1}{4}$, what is the amount of money which, when invested in one rather than in the other, would give rise to a difference of income of \$31.50?

6. On January 1st, 1890, a person borrowed \$2,417.50 at $6\frac{1}{4}\%$ simple interest, promising to return it as soon as it amounted to \$2,582.50. On what day did the loan expire? (365 days = 1 yr.)

7. Distinguish between *simple* and *compound interest*, and between *interest* and *discount*.

A teacher's salary of \$1,000 is paid in four quarterly payments at the end of each quarter. What sum at the beginning of the year is equivalent to these payments, reckoning compound interest at 2% per quarter?

8. A Canadian tourist goes to Paris with \$5,000, which he exchanges for French money at the rate of 19 $\frac{1}{2}$ cents for one franc. He spends 830 francs in France and thence goes to Vienna, where he exchanges what he has left at the rate of 135 florins for 300 francs. He spends 500 florins at Vienna, and then goes to England, where he exchanges his money, getting 1s. 8d. for a florin. His outlay in England is £75 10s. How much Canadian money has he left if £1 = \$4.80?

9. (a) The sides of a triangle are 25, 39, 56 feet respectively. Find its area.

(b) A road runs round a circular pond; the outer circumference is 280 ft., and the inner .210 ft. Find the breadth and area of the road. ($\pi = 3.14159$.)

10. (a) The surface of a sphere is equal to one-half of that of a right circular cone, the radius of the base of the cone is 1 ft. and its height $\sqrt{3}$ feet. Find the volume of the sphere.

(b) Two wheels of a carriage are 3 ft. 9 in. and 4 ft. 8 in. respectively in diameter. How far will the carriage have gone when one wheel has gained 12 revolutions on the other?

SOLUTIONS.

BY W. PRENDERGAST, B.A., MATHEMATICAL MASTER, SEAFORTH COLL. INST.

1. (d) Every number ends in 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9. Hence the square of every number ends in 0, 1, 4, 9, 6, 5, 6, 9, 4, or 1, i.e., in 0, 1, 4, 5, 6 or 9, and therefore never in 2, 3, 7 or 8.

2. (a) Fraction = $\frac{1}{100} \{ 1 - .03 + .0006 - .00001 + 0.00000015 \}$

$$= \frac{1}{100} \text{ of } .97059015 = .0097059015$$

(b) 16.27.32.15.25.36.12.14.21.28.24.18.20.30.40.

$$= 2^3 \cdot 2 \cdot 3^3 \cdot 4^2 \cdot 2 \cdot 3 \cdot 5^3 \cdot 2 \cdot 6^3 \cdot 2 \cdot 3 \cdot 4 \cdot 7^3 \cdot 3 \cdot 8 \cdot 2 \cdot 9 \cdot 24 \cdot 10^3$$

$$= 2^3 \cdot 3^3 \cdot 4^3 \cdot 5^3 \cdot 6^3 \cdot 7^3 \cdot 8 \cdot 3 \cdot 3 \cdot 2 \cdot 8 \cdot 9 \cdot 8 \cdot 3 \cdot 10^3$$

$$= 2^3 \cdot 3^3 \cdot 4^3 \cdot 5^3 \cdot 6^3 \cdot 7^3 \cdot 8^3 \cdot 9^3 \cdot 10^3 \cdot 2^2$$

Fraction = $2^2 \cdot 11 \cdot 13 \cdot 17 \cdot 19 \cdot 22 \cdot 23 \cdot 26 \cdot 29 \cdot 31 \cdot 33 \cdot 34 \cdot 35 \cdot 37 \cdot 38 \cdot 39$

$$= 2^2 \cdot 11 \cdot 13 \cdot 17 \cdot 19 \cdot 2 \cdot 11 \cdot 23 \cdot 2 \cdot 13 \cdot 29 \cdot 31 \cdot 3 \cdot 11 \cdot 2 \cdot 17 \cdot 5 \cdot 7 \cdot 37 \cdot 2 \cdot 19 \cdot 3 \cdot 13$$

$$= 2^9 \cdot 3^2 \cdot 5 \cdot 7 \cdot 11^3 \cdot 17^2 \cdot 19^2 \cdot 23 \cdot 29 \cdot 31 \cdot 37.$$

3 Length of regiment = 247 yds.

Total distance walked by one man while regiment is crossing bridge = 3 mls. 293 yds.

$$\therefore \text{length of step} = \frac{5573 \times 3}{56\frac{1}{2}} \times \frac{1}{96} = 3\frac{5}{8} \frac{1}{2} \text{ ft.}$$

4. Total cost of apples = \$750

$$\text{Risk} = \$825 + \frac{3}{4}\% \text{ of risk}$$

$$\text{Risk} = \frac{825 \times 100}{99\frac{3}{4}} = \$831.234 +$$

5. Let x = the amount invested.

$$\frac{4\frac{1}{2}\%x}{101\frac{1}{4}} - \frac{1\frac{3}{4}\%x}{32\frac{1}{4}} = 31\frac{1}{2}$$

$$\frac{2x}{45} - \frac{11x}{258} = 31\frac{1}{2}$$

$$516x - 495x = 31\frac{1}{2} \times 258 \times 45$$

$$x = \frac{63}{2} \times \frac{258 \times 45}{21} = \$17415.$$

6. Total int. = \$165
 Int. on \$2417.50 for 1 yr. = 163.18125
 \therefore time = 1 yr. + $\frac{.181875 \times 365}{163.18125}$ dys.
 = 1 yr. 4 + dys.

Loan expires Jan. 5th or 6th, 1891.

7. See Text-Book.

$$P.W. = \frac{250}{1.02} + \frac{250}{(1.02)^2} + \frac{250}{(1.02)^3} + \frac{250}{(1.02)^4} =$$

$$\frac{250}{(1.02)^4} \{ (1.02)^3 + (1.02)^2 + (1.02) + 1 \}$$

$$= \frac{250}{(1.02)^4} \left\{ \frac{(1.02)^4 - 1}{.02} \right\} = \frac{250 \times (1.08243216 - 1)}{.02 \times 1.08243216}$$

= \$951.932 +

8. \$5000 = 26041 $\frac{2}{3}$ francs, 25211 $\frac{2}{3}$ francs = 11345 $\frac{1}{2}$ florins.

10845 $\frac{1}{2}$ florins = 18075 $\frac{5}{12}$ shillings = £903 15 $\frac{5}{12}$ s.

Spent £75.10. Remainder = £828 3 $\frac{5}{12}$ s. = \$3975.70.

9. (a) Half sum of sides = 60

Remainder = 4, 21, 35

Area = $\sqrt{(60 \times 4 \times 21 \times 35)} = \sqrt{(4^2 \times 5^2 \times 7^2 \times 3^2)}$
 = 420.

(b) Radius of outer circle = $\frac{230}{2\pi}$

Radius of inner circle = $\frac{210}{2\pi}$

Area of road = $\pi \left(\frac{280}{2\pi} \right)^2 - \pi \left(\frac{210}{2\pi} \right)^2$

= $\frac{1}{\pi} (140^2 - 105^2) = \frac{245 \times 35}{3.14159}$

Breadth of road = $\frac{140 - 105}{\pi} = \frac{35}{3.14159}$

10. (a) Slant height of cone = $\sqrt{3+1} = 2$

Conical surface = $4\pi \times \frac{2\pi}{4} = 2\pi$

Base = π

Total surface of cone = 3π

“ “ “ sphere = $\frac{3}{2}\pi$

$\therefore 4\pi r^2 = \frac{3}{2}\pi$

$r = \sqrt{\frac{3}{8}}$

Vol. = $\frac{4}{3}\pi \cdot \frac{3}{2} \sqrt{\frac{3}{8}} = \frac{1}{2}\pi \sqrt{\frac{3}{2}}$. Ans.

(b) Circumferences = $3\frac{3}{4}\pi$ and $4\frac{5}{8}\pi$.

Small wheel makes $1\frac{1}{4}$ revolutions in passing over $4\frac{3}{8}\pi$ ft.

Large wheel makes 1 revolution in passing over $4\frac{3}{8}\pi$ ft.

Small wheel gains $\frac{1}{4}$ of a revolution in $4\frac{3}{8}\pi$ ft.

Required distance = $\frac{1}{3} \times 2^2 \times \frac{4}{11} \times 12 = 720$ ft.
 Ans.

7. The government of the Dominion consists of (a) Governor-General, (b) Executive Council, (c) Senate, and (d) House of Commons. State the chief duties of each.

8. Shew by reference to the School, Municipal and Legislative Systems of Ontario respectively, that the Government of the Province is democratic.

Values—12, 12, 12, 12, 12, 12, 14, 14.

EAST MIDDLESEX PROMOTION EXAMINATION, NOVEMBER, 1892.

SECOND TO THIRD CLASS.

GEOGRAPHY.

Time—1 $\frac{3}{4}$ hours.

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

1. (a) Draw a half-page map of the school grounds, mark position of buildings, wood-shed, well, etc.

(b) Mark the names of the roads, farms, etc., that bound the school yard.

(c) Outside the map mark the four principal and four intermediate directions: N., N.E., etc.

2. Draw an outline map of the township, or town, or incorporated village in which you live and in which the school house is built.

(b) Place a cross \times to show where your house is and a small square to show where the school house is.

3. Fill the blanks in the following sentence:
 I live in the Township of—, County of—,
 Province of—, Dominion of—, Continent of—

4. (a) What kinds of fruit—,

(b) What kinds of grain—,

(c) What kinds of animals—,

(d) What kinds of dairy products—,

do the farmers in this part of the country raise more of than they need for themselves? What becomes of such surplus?

5. Define: (a) island.

(b) lake.

(c) volcano.

6. Where is Europe?

7. Name the sun, the moon and the earth in the order of size. Which of the first two is nearer the earth?

Values—12, 6, 4, 12, 2, 5, 16, 4, 9, 3, 4. Count 75 a full paper; 25 minimum to pass.

THIRD TO FOURTH CLASS.

Time—2 $\frac{1}{4}$ hours.

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

Written answers to be awarded full value must be correctly spelled, and, if not tabulated, must be in complete, correct sentences.

1. Draw a full page map of Canada; Mark off and name the Provinces and Capitals; Mark the oceans, country, lakes and rivers on the boundary; Mark two islands and two gulfs.

2. State briefly the chief occupation of the people of each Province.

3. Name four important independent railways running easterly and westerly through Canadian territory, and tell the situation of two important stations on each.

4. Tell (a) the exact situation of and (b) for what each of the following is noted:

San Francisco, Yokohama, Cape of Good Hope, Suez Canal, Alps, St. Petersburg, Gibraltar, Liverpool, Panama and Amazon.

5. Of Canadian productions used:

(a) as food name one mineral and nine plants;

(b) as clothing name one plant and five animals;

(c) as building material name four plants (trees) and four minerals.

6. If the earth did not revolve on its axis how long would the day and night each be?

Values—10, 14, 10, 4, 14, 12, 20, 18, 4. Maximum 106; count 100 marks a full paper; 33 minimum to pass.

UNIFORM AND PROMOTION EXAMINATION, UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY, NOVEMBER 24 AND 25, 1892.

LITERATURE.

CLASS III.

(Open Readers at Page 74.)

Only 18 questions are to be answered.

1. What is a schooner? What is the meaning of Hesperus?

2. Explain “wintry sea”; “skipper.”

3. “Blue were her eyes as the fairy flax.” Explain the comparison. Why is the flax called “fairy?”

4. Explain fully what is meant by “Her cheeks like the dawn of day.”

5. What is meant by the “veering flaw?” What direction was the wind?

6. What is the meaning of “main?” Where is the Spanish Main?

7. What is meant by “fog-bell”; “rock-bound coast?”

8. Explain “Some ship in distress that cannot live.”

9. What is meant by weathering a gale?

10. Mention what traits of character the skipper possessed, judging from what is said in the 1st, 4th, 5th, 8th and 9th verses.

(Open Readers at Page 119.)

11. What is the meaning of “striking contrast?” What is the contrast?

12. What is the meaning of “conical form?” Give some examples of conical forms.

13. Give other words for “emit smoke constantly”; “tremendous force”; “amazing grandeur?”

14. Give the meaning of “with which it comes in contact”; “eruption”; “beyond comprehension.”

15. “This fiery monster.” What is the monster? Is this a good comparison? Why?

16. What is the meaning of “appalling disaster?” Mention some other appalling disaster of which you may have heard.

17. “Deluge the city of Pompeii.” What is the meaning of to deluge? Do you think this word is used in its common meaning here? Why?

18. Give other words for “discovered by accident”; of “form some idea.”

19. Distinguish between the meanings of discover and invent, and give examples of the use of each word.

20. Of what use are volcanoes?

Values—6 each.

CLASS IV.

(Open Reader at Page 81.)

1. “Near yonder copse, where once the garden smiled.” Explain the meaning of “smiled” here. What is such a use of the word called?

2. Give the ordinary meaning, and the meaning here, of “disclosed.”

3. Show from the selection why the preacher was dear to all the country.

4. Was he ambitious? Was he rich? Give reasons for both your answers.

5. Give, in your own words, the meaning of: “Remote from towns he ran his godly race, Nor e'er had changed, nor wished to change his place.”

6. Explain the meaning of “unskilful he to fawn,” and of “doctrines fashioned to the varying hour.”

7. Illustrate by an example from everyday life, of “doctrines fashioned to the varying hour.”

8. What were “the aims his heart had learned to prize?”

Examination Papers.

EDUCATION DEPARTMENT, ONTARIO.
 ANNUAL EXAMINATIONS, 1892.

PUBLIC SCHOOL LEAVING.

HISTORY.

Examiners: { A. B. DAVIDSON, B.A.
 JOHN DEARNESS.

1. What changes did the Norman Conquest effect in England with respect to (a) Government, (b) Commerce, (c) Land-holding.

2. Fully explain the following statement:

“What the Great Rebellion (1640-1660) in its final result actually did was to wipe away every trace of the New Monarchy.”

3. Write an account of the national questions with which the following names are associated: John Hampden, John Wilkes, Daniel O'Connell, William Wilberforce.

4. Give an account of the Reform Bill (1832) and the Repeal of the Corn Laws.

5. Describe any two of the following: Military Rule, Clergy Reserves, Responsible Government as applied to Canada.

6. State the cause of the War of 1812, and sketch the events of the war during that year.

9. Explain how "the ruined spendthrift claimed kindred there," and how his claims were allowed.

10. Show clearly the meaning of "His pity gave ere charity began."

(Open Readers at Page 22.)

11. Explain the meaning of "imperial," and tell what is meant by "Rome's imperial day."

12. What is a croaker? Give some examples of croakers at the present day.

13. What sort of a Roman was a noble Roman? Give reasons for your opinion.

14. What is the meaning of "aspiration?" What other words are used in the extract in nearly the same sense?

15. "Her path"—whose path? Does steep imply high also? Give your reason.

16. What three things are spoken of in the lesson as desirable? Tell what you would consider still more desirable, and give reason for your opinion.

17. What does it mean by saying "there is no royal road" to learning?

18. "Learning your ambition." What other line gives almost the same idea in other words?

19. What are the qualities of character named in this extract as necessary to success?

20. What lesson do you learn from this selection? Values—5 each.

School-Room Methods.

A LESSON IN DIVISION.

IN "short division," the quotient is written under the dividend, because that is a convenient place to write it and the space is not needed for other operations. Train the pupils to write the first figure of the quotient directly under the dividend figure of the same name. The habit of thus doing the work will prevent many an error in dividing decimals.

In "long division," the old way (still taught in some schools) was this:

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28) 192612 (6879
    168
    ---
     246
     224
     ---
      221
      196
      ---
       252
       262
       ---

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But here is a better way:

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28) 192612
    6879
    ---
     246
     224
     ---
      221
      196
      ---
       252
       252
       ---

```

Why is it better? Because, 1. The work is more compactly arranged on the slate or board, occupying a smaller amount of space horizontally, and thus obviating the unsightly "dripping over" arrangement likely to occur when the margin is reached before the work is finished. 2. Each figure of the quotient, when used as a multiplier is thus brought nearer to the multiplicand, (divisor). 3. The method paves the way for a very convenient rule by which to fix the decimal point in division of decimals. The rule will be given and illustrated in this department in a subsequent issue.

And here is the best way of all; but some teachers think it is too difficult for American children:

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—The Western Teacher.

THE RECITATION.

FIRST STEP.

WHATEVER be the subject the class is studying, it is essential, to good teaching, that the recitation, each day, be consciously connected with what the child already knows. This connection should be prepared for before the special lesson of the day begins. The lesson must be a continuation of a series of related ideas already learned.

Let us suppose that the lesson to-day is the

TENSES OF THE VERB.

What is the method of approach?

In some schools it is somewhat as follows:

Teacher—Where is our lesson to-day?

Pupil—On page fifty.

T.—What is the subject?

P.—Tenses.

T.—What were we to learn about them?

P.—The name and definition of each, and give examples.

T.—Very well. What is tense?

P.—Tense is that property of the verb which shows the time of the predicate.

Now what is the objection to this way of beginning? It does not make the lesson of to-day a continuation of former lessons and a part of the one whole of grammatical knowledge. The class does not have the proper mental attitude toward the lesson.

This attitude can be secured by questions like the following:

Teacher—What are we trying to learn in this study?

Pupil—Grammar.

T.—Which is—?

P.—Knowledge of our language.

T.—Our language is made up of—?

P.—Words.

T.—These words express—?

P.—Ideas.

T.—How many classes of ideas have we found so far?

P.—Four. (Or three, if noun and pronoun are classed together).

T.—And the classes of words corresponding are—?

P.—Parts of Speech.

T.—We have studied about—?

P.—Nouns, pronouns, adjectives and verbs.

T.—What is a verb?

P.—It is the word that affirms something of the subject.

T.—Does it always affirm in a direct and positive manner?

P.—No. Sometimes doubtingly or conditionally.

T.—And so we have—?

P.—Three modes.

T.—We wish to learn to-day if there is any other property of verbs, and this brings us to our lesson which is?

P.—Tenses.

T.—Now we will see what you have found out about tenses.

This illustrates one chain of questions that would lead up to the lesson. At the next recitation a little different approach would be followed, but always in such a way as to recall the ideas that had been previously elaborated. If it should be a mere repetition of words without seeing the meaning which the words express this would be as wooden and worthless, as all other senseless things. And, too, when the teacher sees clearly the ideas, and undertakes to stimulate the same ideas in the children, he will find ways of approach much better for him than any that can be worked out by another. Manufactured devices are worthless as feet and legs, but they can serve a good purpose as a cane when one is weak.

They are suggestive because all our minds are much the same, and the successful route of one in the solving of a difficulty will often help another to a satisfactory solution.

The idea we seek to emphasize in these suggestions is the need of keeping up these "running reviews" almost daily in every style, in order that what is learned to-day, may be properly assimilated with what has been learned before.—*B. in The Public School Journal.*

PROMOTION must be a secondary consideration; of far greater importance are right habits of thought, of study and acting.—*Supt. D. A. Harman, Hazelton, Pennsylvania.*

HOW MISS STRONG TAUGHT THE PRONOUNS.

MISS STRONG got a certificate at the spring examination, although she was not able to answer all the questions, nor even to make "the required grade" in every branch. The superintendent was a man of good judgment. A martinet in the same office would have refused her a certificate on the ground that she slipped at some points in the analysis of a complex sentence; but he knew her to be a young woman of rare good sense and believed that her character and industrious disposition were an equivalent set-off against the technical shortcomings revealed by the examination. So he allowed her to "pass." She attended the next session of the institute where she endeavored faithfully to profit by the usual profusion of educational viands placed before the members; a part of the feast even she, inexperienced as she was, recognized as green fruit. She could not allow courtesy to strain the truth by saying that she enjoyed or appreciated all the exercises; but there was one of the instructors who was able to keep his feet on the ground and yet not make the instruction silly. Some of his questions made her think for herself in a way that was invigorating. For example, in the Language exercises, instead of the usual stock questions there were such as these: What is meant by the *form* of a word? When may forms be said to be regular and when irregular? What parts of the English language present the greatest irregularities of form? Are these forms *used* before the rules that govern their use are learned?

Such lines of inquiry led Miss Strong to the conclusion that one aim in teaching language should be to furnish occasions to use their regular forms. Her next concern was to devise a method by which to accomplish this purpose. She hit upon a plan, the novelty of which at first amused the pupils; but the earnestness of the teacher soon dispelled the notion that it was only play work. This is one of the exercises which the superintendent saw and heard when he visited the school in October:

Henry, Mary and Emma stood by the table, and James and Lucy were near the window with a chair between them. The teacher directed that in answering her questions they were not to use one another's names. Then the questions and answers proceeded with the ease of a conversation. As it stands in print, the use of figures for reference gives the exercise an appearance of formality which was wholly absent from the oral presentation. Here are some of the questions:

(1) Mary, whom do you see near the window?
 (2) Answer the same question, speaking for yourself and Emma.
 (3) Speak for yourself, Emma and Henry.
 (4) Emma, whom do James and Lucy see by the table?
 (5) Henry, who are by the table?
 (6) Who is it that are near the window?
 (7) Where is the chair?
 (8) Lucy may tell where the chair is.
 (9) Mary, who have a chair between them?
 (10) Now James may tell.
 (11) James, where is the chair?
 (12) Emma, you may speak for all who stand by the table and tell me whom you see near the window.

Occasionally a wrong form was given; then, if no pupil was ready at once to give the right form, the teacher supplied it and the children all repeated it. Nothing was said about nominative or objective case, and no effort was made to state reasons nor to formulate rules. Here are some of the answers:

1. I see him and her. I see them.
 2. She and I see her and him. We see them.
 3. He, she and I see him and her near the window.
 4. They see us. He and she see him, her and me.
 5. He and she and I are by the table.
 6. It is he and she who are near the window.
 7. The chair is between him and her. It is between them.
 8. The chair is between him and me. It is between us.
 9. He and she have a chair between them.
 10. She and I have a chair between us.
 11. The chair is between her and me.
 12. He, she and I see him and her.
 As the superintendent drove along that afternoon, he said to himself, "Miss Strong has common sense and is full of resources; she'll do. I guess I'll try that exercise with the upper class in District No. 7 to-morrow." He did so, and the result was an "eye-opener" to the teacher.—*The Western Teacher.*

Primary Department.

WHAT THE BIRD SAID.

"I WISH I were a bird," said May, as she stood looking up at the robin on a branch above her head. Just then the robin broke out into a joyful song.

"Oh, little bird," exclaimed May, "how happy you must be to sing like that. I wish I were as happy as you are."

The robin held his head on one side and looked down at her a minute, as if he were thinking it over. Then he sang a song straight to May, and this is what he said:

"Little girl, why should I be any more happy than you? The same bright sun is shining on us both; the same blue sky is over our heads. Happiness is something that is in the heart, and not anything that is found in the things about us. If you are trying to make the best of what you have and are not thinking of how much more some one else has, you will then be happy, no matter how little you have. But if you are wishing something was different, instead of being thankful for the blessings you possess, you will never be happy, no matter how much you have."

Then the bird flew away, and May sat down on the grass to think it over. As she thought about it, the sky seemed bluer and the sunlight brighter, and the air sweeter; but she thought she had never seen so many golden buttercups growing in the grass.

But the only thing that was really changed was May's own heart. That now was filled with happy thoughts.

"I guess the robin was right," she said, getting up to pick a bunch of buttercups.

Then she went home singing a little song as sweet and joyous as was the robin's song.—*American Teacher.*

DRAWING.

RHODA LEE.

HAVE you ever observed the delight and interest children take in illustrative drawing? By this I mean the picturing of scenes and stories described or read. Far greater pleasure is taken in picturing a fishing boat tossing about mid high waves, making for the safety of the harbor, than in any possible geometric design, no matter how fascinating. Now, this scene and a host of others can be interpreted in a most graphic way by means of a very few lines. The trouble generally found in attempts of this kind is a desire to elaborate and put in a great amount of detail that is, of course, unnecessary and incorrect. In odd minutes I have given my class hints as to the interpretation of water, hills, rocks, grass, trees, birds, houses, smoke, etc., using colored chalk on the black-board, and allowing them occasionally to use crayons, such as can be obtained for a few cents per box, and we have some very intelligible pictures at times. In connection with reading, geography and object lessons, the sketching is very useful. Sometimes half-a-dozen or more work at the black-board while the others are using slate or blank-books.

The building process is, of course, brought into use in connecting with this picturing. If the picture is being made on the black-board, let as many as possible take part in making it, each one doing his best that the whole may be as near perfect as possible. Suppose the subject of the geography lesson has been the volcano. We are going to make a picture of Vesuvius; one child puts in the outline of the mountain, another the smoke, another the roofs of the villages not far off, etc., etc.

I have merely suggested ways in which this picturing may be useful. The exercise is extremely interesting and may be very developing if carried out well.

AN HOUR WITH A PRIMARY CLASS IN INDIANAPOLIS.

THE scene presented in the Indianapolis class-room differs so widely from the scene presented in the school-room of St. Louis that it would scarcely appear that these two institutions had anything in common. This striking contrast is due to the fact that the Indianapolis schools abound in the element which in St. Louis is so obviously lacking—consideration for the child, sympathy. The cold, hard, and cruel struggle for results is here unknown. The teacher uses every means at her command to render the life of the child happy and beautiful, without endangering its usefulness.

I entered one of the rooms containing the youngest children at the time of the opening exercises. The scene I encountered was a glimpse of fairyland. I was in a room full of bright and happy children, whose eyes were directed toward the teacher, not because they were forbidden to look in any other direction, but because to them the most attractive object in the room was their teacher. She understood them, sympathized with and loved them, and did all in her power to make them happy. The window-sills were filled with plants, and plants were scattered here and there throughout the room. This teacher's desk was strewn with flowers, and upon each of the children's desks flowers had been placed to welcome the little ones to school.

After the children had sung a few little songs the first lesson of the day was in order. This was a lesson in science; its subject was a flower. It began with the recitation of a poem. The object of introducing these poems into the plant and animal lessons is to inspire the child with love for the beautiful, with love for nature and with sympathy for all living things. In the lower grades of the schools of Indianapolis much more stress is laid upon the life of the plant and the relation of the child to the plant than upon its structure; and the child is taught rather how to preserve and to protect it than how to dissect it, so that lessons upon plants (and animals) partake as much of moral as of science lessons.

Before the teacher endeavored to bring out the points to which she desired to direct the special attention of the class, the children were urged to make their own unaided observations and to express them. As each child was anxious to tell what he had observed in relation to the plant itself, what

he otherwise knew of it, how it grew, where it grew, and perhaps some little incident which the flower recalled to him, the class was full of life and enthusiasm. A few minutes sufficed to bring the children to the point beyond which they could not proceed unaided. When this point was reached the teacher came to the rescue, and by careful questioning led the children to observe the particular things to which she had decided to call their attention that morning. Her questions were not put to individual children, but to the whole class, so that every question might serve to set every pupil observing and thinking. That they did observe and think was shown by the number of hands that were raised in answer to every question. In all, fifteen minutes were devoted to this lesson. When the science lesson was over some of the children were called to the front of the room to read, and silent or busy work was assigned those remaining at their seats.

PARTICULARS OF THE WORK.

The book used during this reading lesson was the book of nature—the plant they had just been studying. The scene presented, by the happy little children, each with a flower in his hand surrounding the teacher who was smiling upon them, was truly beautiful. For reading matter the children were called upon for sentences expressing thoughts concerning their flowers. The sentences were written upon the board by the teacher, and when a number of them had been written the pupils began to read them. The children were interested because they all took an active part in the lesson from the beginning to the end. They were all observing, all thinking, they all had something to say and were glad of an opportunity to tell what they had to say. The teacher was fully as enthusiastic as her pupils, and as much pleased as they when the children made a bright remark. That, in spite of her gentleness, she had them completely under her control was shown by the fact that they were more than willing to do anything she asked them to do.

How shocked some of our so-called disciplinarians would have been had they witnessed this lesson! The children were expected to talk and they had much to say, and their hands were ever in sight. Our disciplinarian calls the child orderly only when he has nothing to say, when he has no thoughts to express, and when his hands are nowhere in sight. The children's toes were not on the line, but were so arranged that they might be as near their teacher as possible. Some of the little ones even committed the crime of laying their hands upon the teacher, and she so far forgot herself as to fondle them in return. Yet the discipline was perfect. What is perfect discipline in the class-room but perfect attention? There was no noise, there was everywhere signs of life, and such signs of life as become a gathering of young children.

Meanwhile the pupils who had remained at their seats, though practically left to themselves, were far from idle. They had no time for idleness or mischief—they were too deeply absorbed in their work for that. They, as well as the others, were studying

the book of nature, and these little six-year-olds and seven-year-olds were doing thoughtful work, even without the aid of the teacher. They were not only reading from their flowers, they were painting them, writing little stories about them, utilizing them for number, form, and color work, and exercising their powers of observation and thought upon them; and, strange to say, every child was doing nearly all of these things at one and at the same time.

How can these little pupils perform such miracles? There are no miracles involved. The teacher has simply given the children each a box of paints, a brush, and a flower, and had told them to paint the flower and write a story about it.—*Dr. Rice, in the December Forum.*

SUPPLEMENTARY READING.

RII-DA LEE.

THE surprised and shocked expression that stole over the face of a visitor when entering my class-room a few days ago amused me somewhat. The children were holding their books in a comfortable position and reading silently. There was nothing strange or painful about that. It was not the occupation but the *literature* that caused my old friend to elevate his brows. The books were not the First Reader, part 2nd, that he expected to see, but back numbers of *Wide-Awake* and *Babyland* that I had just received from the publishers. They were particularly bright and attractive numbers, and, of course, it was a little unusual, but after explaining my method of using them, and reasons for so doing, he seemed rather pleased, even expressed a regret that we had not more such magazines. I would go further and express the hope that some day in the primary classes we shall have no two books alike, and instead of a fixed reader, a large collection of stories and story-books suited to children of that age.

One might think there would be a tendency to careless reading in putting books of this description into the hands of young children. There is certainly a danger. Careful reading, accurate thought-getting, is something we must cultivate. Questioning is the only test we can apply at first, but as soon as possible I require my children to write the story in their own words. This is generally done in a rough note-book which is handed in for inspection. Illustrations occasionally accompany the stories, and sometimes these are, to say the least, striking.

Encourage reading at home. How often the Christmas and birthday books are valued only for the pictures and bright covers, even when the children could read and enjoy them with a little application. Let your pupils bring these books to school occasionally, and endeavour to create an interest in the reading matter.

One or two suggestions for drill in word recognition. I have a set of cards each of which contains four or five long words, syllabized and accented. These are distributed among the children who read them to me when recognized.

The cards of another set form a complete story. I supply the outline, and the blanks are filled up by sentences found on the cards.

Word-building is also of considerable value. Let me give an example: The first word placed on the board is *bit*; next, *habit*; then *inhabit*, and lastly, *inhabitants*. *Misunderstanding, representation, uninteresting*, are samples of words that can be built up in this way.

Reading lessons should occasionally relate to current events. The season and everything pertaining to it should form a topic. There is never any scarcity of subjects if we would only look for them.

In closing, I would again urge those who have not already a collection of stories for supplementary reading, to delay no longer. The advantages are plain to all, and there is really no difficulty in obtaining suitable matter. Sunday-school papers may be cut up, "Children's Corner" in periodicals preserved, and back numbers of magazines, such as those mentioned, obtained at very small cost.

Short stories copied on a caligraph or type-writer are very good. Some of the best of this kind I have seen were original stories written by children seven and eight years old, and then copied on a machine.

* Literary Notes. *

Our Little Men and Women for February treats of just the things its youthful readers will want to know. It tells of a little king and his little kingdom, and describes a queer machine in use in "Grandpapa's" day. "Children that live in a Shoe" is a clever lesson in physiology, and the "Three Little Gold-Diggers" is as apt in its way. "A Little Columbian Grandpapa" gives a glimpse of frolic and study, and "How Bergit Forgot Her Christmas-Tree" will set many a little girl to thinking. With its dainty poems, its beautiful pictures, and its stories and verse, the boy or girl who receives this little magazine every month is fortunate indeed. Price \$1.00 a year; ten cents a number. D. Lothrop Company, publishers, Boston.

THE February number of the *Atlantic Monthly* contains several articles of interest, of which the most timely is, perhaps, one by Rev. Julius H. Ward, "The White Mountain Forests in Peril." A very interesting paper is William E. Mead's "Books and Reading in Iceland." Among other articles may be mentioned Albert G. Hyde's "The English Cambridge in Winter;" S. R. Elliott's "The Courage of a Soldier;" Biographical sketches of Count Rumford and the late Thomas William Parsons, by Rev. George E. Ellis, D.D., and Richard Hovey, respectively; continuations of Mary H. Catherwood's "Old Kaskaskia," of Francis Parkman's "The Feudal Chiefs of Acadia," and of Kate Douglas Wiggin's "Penelope's English Experiences." There are, of course, the usual book reviews, and the "Contributors' Club."

Scribner's Magazine for February has a number of illustrated articles on unusually interesting bits of foreign lands. Dr. Henry Van Dyke writes an unconventional travel-sketch, with the title "From Venice to the Gross-Venediger." From a far different outlook, Mr. and Mrs. Blashfield describe "Florence and the Florentine artist" with pen and pencil—the pictures of Mr. Blashfield giving the artistic atmosphere of that most suggestive city. Another paper by the late Marquis de Chambrun (whose pen-picture of Lincoln was conspicuous in the January number), gives his vivid "Personal Recollections of Charles Sumner," with whom he was well acquainted from 1865 to Mr. Sumner's death in 1874. In fiction this issue contains three complete short stories and the second instalment of Mrs. Burnett's charming serial.

Worthington's Magazine for February opens with an interesting paper by J. A. MacKnight, entitled "Brigham Young: A Fair Sketch by One Who Knew Him." When a boy Mr. MacKnight, as a relative of the so-called "Prophet," was a member of Brigham Young's household, though not a favored one, as he was not considered a tractable young "saint." In view of Utah's struggle for statehood, and the general amnesty just granted to Mormons by President Harrison, this article possesses a timely interest; and the numerous beautiful illustrations, reproduced from photographs, admirably supplement the text.

AN important article, entitled, "How to Revise the Tariff," appears in the February number of the *North American Review*, by Hon. W. M. Springer, whose position as Chairman of the Ways and Means Committee of the House of Representatives gives him the right to speak authoritatively. Among the numerous other articles of interest are, one by Senator Hansbrough, of North Dakota, entitled, "Why Immigration should not be Suspended," and one on the British section at the World's Fair, by Sir Henry Trueman Wood, Secretary to the British Commission.

THE January number of *Canada* contains a story by Prof. Roberts; Nehilakin, an Indian legend; a Battle with an Indian Devil; poems by J. F. Herbin, A. A. Macdonald, Wm. Merlin, and the editor; a review of Fletcher's "Nestorius;" the "Editor's Talk;" "Home Topics," and other miscellaneous matter. Prizes to the amount of \$100 are offered for the best poems and prose articles appearing in *Canada* during the year. A sample copy may be obtained at any time by sending a post-card to the publisher, at Hampton, New Brunswick. Fifty cents a year.

THE February *Popular Science Monthly* opens with an article on "The Glass Industry," by Prof. C. Hanford Henderson. Prof. Spencer Trotter contributes a chatty account of the "Birds of the Grass Lands," with illustrations. M. Paul Topinard sketches the natural history of man under the title "Man in Nature." Prof. C. O. Whitman sets forth the need of a "A Marine Biological Observatory." Prof. E. P. Evans returns to the attractive subject of animal intelligence, describing "The Aesthetic Sense and Religious Sentiment in Animals." M. Berthelot writes on "Science as a Factor in Agriculture." Other articles are: "The Habits of the Garter Snake," by Alfred G. Mayer; "Ghost Worship and Tree Worship," by Grant Allen; "Number Forms," illustrating some of the curious operations of the human mind, by Prof. G. T. W. Patrick; "Science Teaching," by Frederick Guthrie; "The Trepan" (illustrated); "Prehistoric Trepanning." "The New Star in the Milky Way," "The Discovery of the Sexuality of Plants," and a sketch of Robert Boyle, with portrait. New York: D. Appleton & Co. Fifty cents a number, \$5.00 a year.

D. C. HEATH & Co., Boston, have added to their series of English classics, "Select Speeches of Daniel Webster," edited, with notes, by Prof. A. J. George. This book is intended as a companion volume to, "Burke's American Orations," which was prepared by the same editor and published a year ago.

THE complete novel in the February *Lippincott*, "The First Flight," is by Julien Gordon. It deals satirically with the ambitions of a daughter of wealthy parents, not quite "to the manner born" socially, and is illustrated. The Journalist Series is continued in an interesting article by Hon. John Russell Young, on "Men Who Reigned: Bennett, Greeley, Raymond, Prentice and Forney." Portraits of these famous editors are added, and one of Secretary Seward accompanies "Recollections of Seward and Lincoln," by James Matlack Scovil. Karl Blind, a well-known authority on the politics of the Old World, discusses "The Russian Approach to India." Among other articles which invite attention, M. Crofton, in "Men of the Day," describes Ruskin, Earl Rosebery, Archbishop Ireland and Justice Lamar, and "Josiah Allen's Wife" supplies a short story, "Josiah's Alarm." The poetry of the number is by Ella Wheeler Wilcox, and five or six other workers of the muses.

THE characterization, *The New Education*, is applied by its votaries to that body of educational doctrine exemplified in its first stages by the kindergarten, higher by object-teaching, sloyd and

manual training, and ultimately by seminary methods generally—always one and the same principle. This name has been adopted by a new magazine to appear in January. *The New Education* would aid parents, kindergartners, teachers, to guide educational practice to a faithful following of this principle. It would diffuse helpful suggestion and carefully formulated precept; it would arouse enthusiasm, sustain courage, establish steadfastness, secure efficiency. It is to be edited by W. N. & E. L. Hailmann. Simpson & Co., 841 Broadway, N. Y., are the publishers.

The Chautauquan for February has, amongst the many others in its lengthy table of contents, the following: "Earth," by J. S. Billings, M. D.; "Women in Greek Literature," by Emily F. Wheeler; "Sunday Readings," selected by Bishop Vincent; "Some Practical Phases of Electricity," by Franklin Leonard Pope; "The Poems of Lowell, with a Glance at the Essays," by John Vance Cheney; "The Homes and Home Life of Robert Burns," by Prof. Lewis Stuart; "Militarism and Social Reform in Germany," by Colonel Franz Schumann; "Practical Suggestions in Art," by Lina Beard; "Street Scenes in Tokio," by Helen Strong Thompson; "Why Not a School Reform in Germany?" by Prof. Fleischmann; "Relationship Between Physical Income and Expenditure," by Dr. Mary E. Grady. The editorials treat of "Two Notable Heresy Trials," "Charms and Faults of Young Poets," "Winter Resorts and Who Attend Them." The poetry of the number is by James Buckham, J. Edmund V. Cooke and John W. Eddy.

Book Notices, etc.

Any book here reviewed sent post-paid on receipt of price. Address The Grip Printing & Publishing Co., Toronto.

The Story of the Bible, from Genesis to Revelation, told in simple language for the young. By Charles Foster. World Publishing Company, Guelph, Ont.

The aim of the author of this work, the need for which was suggested to him during many years' experience as a teacher of Scripture in the Sunday-school and the home circle, was to give a simple version of the many portions of the Bible, which would not only give its stories, precepts and doctrines, in a continuous form, but would also show the connection and unity between the Old and New Testaments. He has endeavored to include all of Scripture that may profitably be used in such a work, to follow closely the sacred narrative; to add no more of comment than is necessary to make the meaning and connection clear, and to employ such simple language and forms of expression as would be readily understood by children and uneducated adults. This work has been well done. The illustrations, many of which are evidently reproductions of the works of painters, will add to the interest of the narrative. The book is printed and manufactured in Canada. It contains about 750 pages. The type is clear and of good size, the binding neat and attractive.

Expert Book-Keeping. A practical work for the use of business men; shareholders, directors, officers, auditors, etc., of joint stock companies, associations, societies, municipalities, etc., and for advanced students in the science of accounts. By C. A. Fleming, Principal of the Northern Business College, a member of the Institute of Chartered Accountants' of Ontario, author of "The Laws of Business," "How to Write a Business Letter," etc.

This is a very valuable book for the classes of business men for whom it is intended. It deals almost entirely with the formation, incorporation, and book-keeping of joint stock companies, incorporated to carry on manufacturing, contracting, banking and other businesses, insurance corporations, building and loan societies, co-operative societies, churches, partnerships, auditing, investments, municipal book-keeping, etc. In contains

also a good deal of miscellaneous practical information, relating to incorporated concerns. We know no other work that deals with these subjects in so comprehensive a manner. It will be found of special value to officers, shareholders, etc., of all classes of incorporated concerns, as well as to persons preparing for the Departmental examination for commercial specialists in High Schools and Collegiate Institutes.

Teachers' Miscellany.

WHY NOT A SCHOOL REFORM IN GERMANY?

THE anxiety, that upon admission of women the rank in the university would be lowered because as much could not be expected of her as of the stronger sex, has proved to be completely groundless. Woman's mind possesses a liveliness, quickness of conception, and aptitude of combination which enable her to endure every exertion, and experience has taught that the rank of institutions in which women participate, is more liable to become higher. Collected statistics of Cornell University show that since the admission of women, with increased demands on the students, the percentage of students who did not succeed and had to give up the studies fell from twenty-six to sixteen, and that not a single girl failed to pass the examinations.—*Professor Fleischmann, in The Chautauquan for February.*

NATIONAL MILES.

The Irish mile is 2,240 yards.
The Swiss mile is 9,153 yards.
The Italian mile is 1,766 yards.
The Scotch mile is 1,984 yards.
The Tuscan mile is 1,808 yards.
The German mile is 8,106 yards.
The Arabian mile is 2,143 yards.
The Turkish mile is 1,826 yards.
The Flemish mile is 6,869 yards.
The Vienna post mile is 8,296 yards.
The Roman mile is 1,728 or 5,025 yards.
The West mile is 1,107 or 1,335 yards.
The Dutch and Prussian mile is 6,480 yards.
The Swedish and Danish mile is 7,341.5 yards.
The English and American mile is 1,760 yards.

—*N. Y. School Journal.*

CHILDREN HAVE A BETTER CHANCE NOWADAYS.

In those days, I think, the Children's Century had not begun. Children were not regarded as embryo intellects, whose growth it is the pleasure and duty of intelligent maturity to foster and protect. Morals and manners were attended to, desperate efforts were made to conquer their natural disinclination to wash their hands and faces, it was a time-honored custom to tell them to "make less noise," and I think everybody knelt down in his night-gown and said his prayers every night and morning. I wish I knew who was the originator of the nursery verse which was a kind of creed:

"Speak when you're spoken to,
Come when you're called,
Shut the door after you,
And do as you're told."

The rhyme and metre were perhaps, not faultless, but the sentiments were without a flaw.

A perfectly normal child knew what happened in its own nursery and the nurseries of its cousins and juvenile friends; it knew something of the romances of Mrs. Barbauld and Miss Edgeworth, and the adventures related in Peter Parley's "Annual." Religious aunts possibly gave it horrible books containing memoirs of dreadful children who died early of complicated diseases, whose lingering developments they enlivened by giving unlimited moral advice and instruction to their parents and immediate relatives, seeming, figuratively speaking, to implore them to "go and do likewise," and perishing to appropriate texts. The Small Person suffered keen private gangs of conscience, and thought she was a wicked child, because she did not like those books and had a vague feeling of

disbelief in the children. It seemed probable that she might be sent to perdition and devoured by fire and brimstone because of this irreligious indifference, but she could not overcome it. But I am afraid the Small Person was not a normal child. Still she really could not help it, and she has been sufficiently punished, poor thing, even while she has been unduly rewarded. She happened to be born, as a clever but revoltingly candid and practical medical man once told her, with a cerebral tumor of the Imagination.—From "The One I Knew the Best of All; A Memory of the Mind of a Child," by Frances Hodgson Burnett, in the February *Scribner*.


AN ESSAY ON COLUMBUS.

THE story is, that when the boys in a certain school in England were required to write an essay on Columbus, one of them produced this:

"Columbus was a man who could make an egg stand on end without breaking it. The King of Spain said to Columbus: 'Can you discover America?' 'Yes,' said Columbus, 'if you will give me a ship.' So he had a ship and sailed over the sea in the direction where he thought America ought to be found. The sailors quarrelled and said they believed there was no such place, but after many days the pilot called to him and said: 'Columbus, I see land.' 'Then that is America,' said Columbus. When the ship got near the land was full of black men. Columbus said: 'Is this America?' 'Yes, it is,' said they. 'I suppose you are the niggers?' 'Yes,' they said; 'we are,' and the Chief said, 'I suppose you are Columbus?' 'You're right,' said he. Then the Chief turned to his men and said: 'There is no help for it; we are discovered at last.'"

THE LONGEST DAY OF THE YEAR.

It is quite important, when speaking of the longest day of the year to say what part of the world are talking about, as will be seen by reading the following list which tells the length of the longest day in different places. How unfortunate are the children in Tornea, Finland, where Christmas day is less than three hours in length? At Stockholm, Sweden, it is 18½ hours in length. At Spitzbergen the longest day is 3½ months. At London, England, and Bremen, Prussia, the longest day has 16½ hours. At Hamburg in Germany, and Dantzic in Prussia, the longest day has 17 hours. At Wardbury, Norway, the longest day lasts from May 21st to July 22nd, without interruption. At St. Petersburg, Russia, and Tobolsk, Siberia, the longest day is 19 hours and the shortest 5 hours. At Tornea, Finland, June 21st brings a day nearly 22 hours long, and Christmas, one less than 3 hours in length. At New York the longest day is about 15 hours, at Montreal, Canada, it is 16.—*The Christian Intelligencer.*



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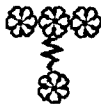
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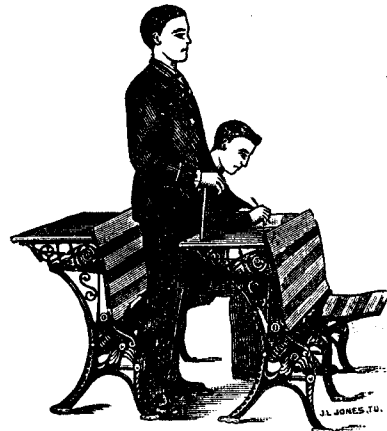
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