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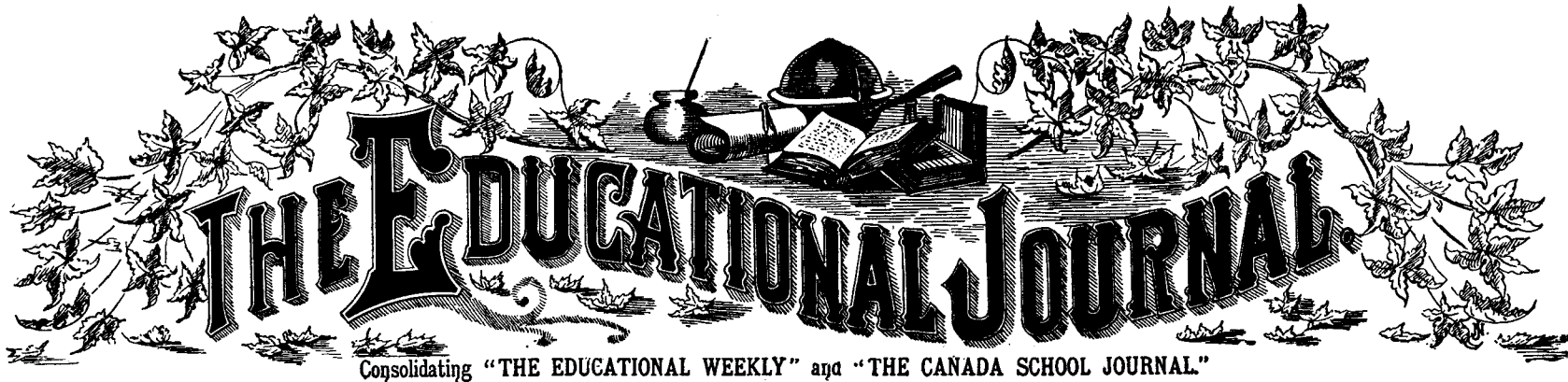
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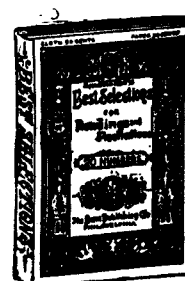
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OFFICIAL CALENDAR

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EDUCATION DEPARTMENT

March

- Minutes of County Council to Department, due, [P.S. Act, sec. 114.]
- Inspectors' Annual Reports to Department, due, [P.S. Act, sec 155 (5).]
- Inspectors' summary, township and village reports to Department, due.
- Auditors' Reports on the School Accounts of High School Boards, and the Boards of cities, towns, villages and townships to Department, due.
- Financial Statements of Teachers' Associations to Department, due.
- Separate School Supporters to notify Municipal Clerk. [S.S. Act, sec. 40.]
- The last day for receiving applications for examination from candidates not in attendance at the Ontario School of Pedagogy.
- Toronto University Examinations in Medicine begin.
- High Schools close, second term. [H. S. Act., sec. 42.]
- GOOD FRIDAY.
Night Schools close (session 1892-93.)

EXAMINATIONS 1893.

March :

- Last day for receiving applications for Examination from candidates not in attendance at the School of Pedagogy.

April :

- Applications for Specialists' certificates due.
- Written Examination of School of Pedagogy begins.

May :

- Specialists' Examination at University of Toronto.
Notice by candidates for the High School entrance, and Public School Leaving Examinations to Inspectors, due.
- Notice by candidates for the Primary High School Leaving, and University Matriculation Examinations, to Inspectors, due.

June :

- Applications for Kindergarten Examinations, due.
- Normal School Examinations begin.
Practical Examination of the School of Pedagogy begins.
- Examinations in Oral Reading, Drawing and the Commercial course in High, Public and Separate Schools begin.
- High School Entrance Examinations begin.
Public School Leaving Examinations begin.
- Kindergarten Examinations at Hamilton, Ottawa and Toronto.

July :

- Primary and High School Junior Leaving and University Pass Matriculation Examinations begin.
- Examination for Commercial Specialists' Certificates at Toronto.
- High School Senior Leaving and University Honor Matriculation Examinations begin.

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Vol. VI.
No. 20.

Table of Contents.

HINTS AND HELPS—	PAGE.	MATHEMATICS—	PAGE
Adorn the School Room	308	Problems and Solutions..	314
System for Arbor Day..	308	Commercial Specialists...	314
The Playhour in a Country School.....	308	TEACHERS' MISCELLANY—	
Suggestive Mottoes for Lessons on Temperance	309	How New York is Overcrowded.....	315
FOR FRIDAY AFTERNOON—		The Population of the Earth.....	315
The Slave Mother's Lament.....	309	SCHOOL-ROOM METHODS—	
A Golden Rule.....	309	Inverting the Divisor.....	316
BOOK NOTICES, ETC....	309-315	Practical Mensuration...	316
EDITORIALS—		ENGLISH—	
The Ontario Educational Association.....	307	The Discoveries of Jacques Cartier (First Prize Paper).....	316
Our Prize Competition..	310	History (Second Prize Paper).....	317
The Prevention of Cruelty to a New Argument for the Rod in Schools.....	310	PRIMARY DEPARTMENT—	
SPECIAL PAPERS—		To be Memorized.....	318
The Village Schoolmistress.....	312	Primary Object Lessons.	318
EXAMINATION PAPERS—		Ear Training.....	318
Education Department, Ontario, Annual Examinations, 1892.....	313	Busy Work in Color.....	318
		Language Lesson.....	318

Subscribers to the "Educational Journal" who do not receive recognition of remittances promptly will please excuse the delay, as we have to make extensive changes in our list in order to conform to the P.O. regulations. This will be completed in a few days, and acknowledgments will then be sent.

THE ONTARIO EDUCATIONAL ASSOCIATION.

THE thirty-second annual convention of this Association will be held in the Education Department buildings, Toronto, on Tuesday, Wednesday and Thursday, April 4, 5 and 6, 1893. The officers of the Association are: President, S. B. Sinclair, B. A., Hamilton; Secretary, Robert W. Doan, Toronto; Treasurer, W. J. Hendry, Toronto.

The books of the Association will be opened for registration at 9 a.m. on Tuesday, April 4, in the examiners' room, Education Department. All who wish to become members of the Association are urged to call and register as soon as possible after 9 a.m., and secure their tickets of membership. Membership fee, 50c.

Any information respecting the rooms in which the meetings are held, etc., may be obtained in the above-named room. All requests for the introduction of matters not named in the programme of the General Association must be presented to the board of directors. All the departments will meet for organization on Tuesday at 10.30 a.m. Meetings of the General Association will be held during the evenings only. There will be a meeting held in the public hall of the

Education Department on Wednesday, at 2 p.m., to hear a paper upon and to discuss the subject of the present condition of Mathematical Studies in our High Schools, by W. J. Robertson, B.A.

Following are the departments of the Association as now organized, with their respective officers:

Public and High School Trustees' Department.—Chairman, S. F. Lazier, M.A., LL.B., Q.C., Hamilton; Secretary, Geo. A. Aylesworth, Newburgh, Addington Co.; Director, Rev. G. G. McRobbie, Ph.B., Sc.D., Shelburne.

High School Department.—Chairman, Alexander Steele, M.A., Orangeville; Secretary, I. J. Birchard, Ph.D., Brantford; Director, A. W. Burt, M.A., Brockville.

Public School Department.—Chairman, W. Wilkinson M.A., Brantford; Secretary, A. McMillan, Toronto; Director, S. McAllister, Toronto.

Training School Department.—Chairman, T. Kirkland, M.A., Toronto; Secretary, J. J. Tilley, M.S.I., Toronto; Director, J. A. McLellan, LL.D., Toronto.

Inspectors' Department.—Chairman, William Atkin, P.S.I., St. Thomas; Secretary, J. S. Deacon, P.S.I., Milton; Director, Henry Reazin, P.S.I., Linden Valley.

Kindergarten Department.—Chairman, Mrs. Ada M. Hughes, Toronto; Secretary, Miss Bowditch, Hamilton; Director, Mrs. J. B. Wylie, Brantford.

Classical Section of the High School Department.—Honorary President, Goldwin Smith, D.C.L.; President, John Fletcher M.A.; Vice-President, William Dale, M.A.; Secy.-Treas., A. R. Faircloth, M.A.; Councillors, A. J. Bell, Ph.D.; A. J. Strang, B.A.; A. B. Nicholson, M.A.; J. Henderson, M.A.; W. S. Milner, B.A.; J. E. Hodgson, M.A.; A. Carruthers, M.A.; J. C. Robertson, B.A.

Science Section of the High School Department.—Honorary President, Prof. R. Ramsay Wright, M.A., B.Sc.; President, W. S. Ellis, M.A., B.Sc.; Vice-President, W. Forrest, M.A., M.D.; Secretary, T. H. Smyth, M.A., B.Sc.; Councillors, T. H. Lennox, M.A.; G. A. Smith, M.A.; C. Fessenden, B.A.; J. B. Turner, B.A.; A. B. Macalum, Ph.D.

Modern Language Section of the High School Department.—President, G. A. Chase, B.A.; Secretary, J. Squair, B.A.

Mathematical and Physical Section of the High School Department.—Honorary President, James Loudon, M.A.; President, J. A. McLellan, LL.D.; Vice-President, W. J. Robertson, B.A.; Secretary, Fred. F. Manley, M.A.; Executive Committee, Prof. Bain; R. A. Thompson, B.A.; C. Fessenden, M.A.; Geo. I. Riddell, M.A.

Model School Section of Training School Department.—Chairman, J. Moran, Barrie; Secretary, A. Barber, Cobourg.

Full programmes of the meetings of the various departments and sections are given in the general circular recently issued by the Secretary. Any teacher who has failed to receive a copy may, no doubt, promptly obtain one on application to the Secretary of the Association, Robert W. Doan, Esq., 216 Carlton St. East, Toronto.

Reduced rates on the Railways will be granted to those attending the Convention and becoming members of the Association, at one first-class fare and one-third fare for the round trip, if more than 50 attend; or at one first-class fare, if 300 or more attend.

Those travelling to the meeting must purchase first-class, full-rate, one-way tickets, and obtain a receipt on the standard certificate for purchase of tickets from agent at starting point, within three days of date of meeting, (Sundays not included.) The Secretary of the Association will fill in the said certificate, and the ticket for the return trip will be issued at the above rate. The standard certificate will be supplied free by the agent from whom the ticket to Toronto is purchased, and no other form will be recognized by the railway companies.

The regulations of the Education Department provide that "Any teacher who has been elected a delegate, by the Association of his County or Inspectoral Division to the Provincial Teachers' Association shall be at liberty to attend the meeting of such Association for any time not exceeding one week each year, providing he always report to the Trustees such attendance, certified by the Secretary of said Provincial Association."

As the time formerly selected for holding the Provincial Convention prevented the attendance of many inspectors and teachers who took their holidays then, special provision has been made by the Minister of Education to allow teachers to attend the convention without interfering with their summer vacation. It is, therefore, hoped that this will be appreciated by the profession and that every effort will be made to secure a large attendance at this meeting.

Let the members of the teaching profession in Ontario show that they are thoroughly alive to the benefits to be derived from mutual discussion and conference, and from contact with the best minds and the most successful men in the profession, by coming out in large numbers and making this meeting the best ever held in the Province.

* Hints and Helps. *

ADORN THE SCHOOL ROOM.

MAKE your school-room pretty. Somewhere I have read: "The influence of the teacher over the scholar is next to the parent. The school-room, in pleasant association, should be next to the home." Our children have come from all sorts of homes and influences. To some beauty and taste are so closely connected as to form a part of their being, while others are strangers to all such save, perhaps, an occasional glimpse of the fairy land. The fine sensibilities should be kept untarnished, the dormant ones awakened to activity. How is this to be done? Have, as nearly as possible, the surroundings such that the mind may feed upon. Awaken and cultivate a desire to study the new and beautiful. Fill the room with that which will have a tendency to elevate and refine. Children admire pictures. Let them bring some of their own little pictures from home, or each contribute a few pennies which, put with the teacher's mite, will buy a picture or two. Encourage them to bring flowers, shells or pretty stones. A glass jar with two or three windows will be quite an ornament. Fill the jar half full, or more, with water, put in a handful of pebbles and sand, also a bit of a branch or any swamp grass or weed. These will answer for a hiding place for the fish. Don't forget to pour out nearly all the water every day and put in fresh. —Independent.

SYSTEM FOR ARBOR DAY.

BY ONTARIO TEACHER.

I BELIEVE that at present in the majority of schools in Ontario, Arbor Day is observed by the planting of a few trees—often very few—and that, without system or ceremony, that might prove a lesson and remain a stimulating memory to pupils in after years.

I do not believe in complex systems in work, nor in undertaking too much at a time, but I do believe in extending the improvements of Arbor Day to other things as well as tree-planting, and that some system should govern our work on that particular day. We are required to teach, to maintain proper order and do school work in general, systematically, why not Arbor Day's operations? During each year the defacings of school property by time, weather and the pupils are great, and demand attention, as well as the adornment of school premises.

I have a large ungraded school, having a daily average of fifty-six pupils in attendance. To avoid difficulty and disorder, placing and keeping each at his proper place and work on Arbor Day, I tried to think of some plan by which all might know just what to do and be interested in the doing of it.

This is the plan I finally devised, tried on May 6th last, and found to work satisfactorily. I give it to fellow-teachers for the few suggestive thoughts it may contain.

I divided the work for Arbor Day into four classes, viz., (1.) Tree planting and pruning. (2.) Improving interior of school room. (3.) Improving grounds and fences, and (4.) Supplying materials required for Arbor Day work, such as: spades, hammers and nails, saw, garden-rakes, etc. I placed each of these departments in charge of a committee of six pupils, who were to be responsible for the carrying out of all work in their respective lines. The committees were named respectively, "Tree Committee," "School-House Committee," "Ground and Fence Committee," and "Supply Committee." To these I added a "Programme Committee," instructed to prepare a suitable programme to be rendered at the close of the day's work. A member of each committee was chosen, by myself, to act as overseer of the work of the committee of which he was a member, and to record the completion of each item of work on a sheet of paper, on which was outlined the work to be done. The overseers handed in their reports at the end of each hour to the teacher, thus giving the latter an idea of the progress of each department of work.

In the tree-planting, each tree was planted in honor of some person or persons and for each class in the school. A tree was planted by one chosen from each class to plant the tree picked out by his or her class, the pupil doing the "planting" by

fastening on the tree a red ribbon, on which was marked the name of the class and the words, "Arbor Day, 1892." Trees were also planted in honor of others connected with the public schools, one for the people of the section, another for the trustees, another for the Inspector, another for the Minister of Education, and one for the teacher; these also having bright ribbons, properly marked, waving from their centres.

While the trees were being planted, pupils and teachers joined in singing "The Maple Leaf for Ever." It was indeed very impressive. My mind peering forth into the deep future seemed to see these very pupils at more advanced years, looking back with pleasant recollections on the scene of today, feeling thankful for the lessons of "natural piety" they had learned when they, with their own hands, had planted these noble trees, and revering the stately trees, whose planting they had the honor of witnessing and whose praises they had so heartily sung.

With the teacher's supervision, and the active, willing work of the little ones, the day sped on happily and by four o'clock (indeed, it was five o'clock before we were through with work), the grounds and school had received a marked improvement.

As soon as the work was finished, and each overseer had proudly presented me with his report, carefully completed, we entered the school, and for a few minutes were entertained by the fine selections the Programme Committee had prepared during the week. A few remarks on the day's work, and a few suggestive thoughts for the future, gathered from the day's work, were given to the pupils by the teacher, and then all, young and old, little ones and larger ones, wended their way home, doubtless wearied, but, nevertheless, having a greater love for "Arbor Day" and "Nature," than ever they had, and enjoying the satisfaction of knowing that the day had been made more attractive and more useful by their presence.

Who can estimate the value, to the minds of the future men and women of our land, of a day thus spent, chiefly in the worship of nature. Let us have more of it; and may the time soon come when our legislators will see it to be their duty to enforce as strictly the observance of Arbor Day systematically, as to enforce the observance of other days, of not half the importance.

THE PLAYHOUR IN A COUNTRY SCHOOL.

BY FRED BROWNSCOMB*, PETROLIA.

IN response to the frequent demands in THE JOURNAL for school games, I shall endeavor to describe such as I have found practically useful, beginning with those suitable for the winter.

OUT OF DOORS.

The present is the season when the big boys and often young men turn their attention for a time to the school. Being too old for children's games, they ordinarily prepare for an extended course of "loafing," than which nothing is more productive, not only of mischief, but of positive evil.

This is how I found things at my first school. A goodly number of my pupils, some of whom came solely "to have some fun," were within a year or two of my own age, and lurking rebellion and ill-concealed impertinence made school government a tremendous nervous strain.

FOOTBALL.

As a means of getting them out of doors at noon and recess, it occurred to me to try football. I talked the matter over with the boys, got them to subscribe each a small sum, and bought a ball. And then what a change there was. By taking an active part in the game myself, singling out the natural leaders of the school and frequently asking and acting on their advice, I soon had established such relations with them that the government problem ceased to be a problem, and those who came to scoff remained to play football. Then, by arranging several friendly games with neighboring schools the enthusiasm of the boys was so maintained that spring came without any of the outbreaks I had feared taking place.

Since that time I have regarded a football as a much more necessary adjunct to a school than a rubber strap, and to every teacher who asks me, "How am I to get along with those boys?" my invariable reply is "Get a football."

"What! In January?"

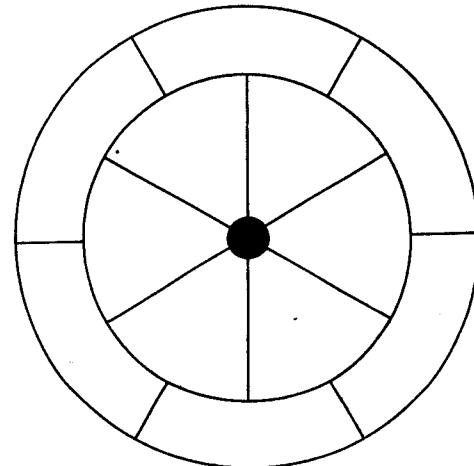
Certainly, and help use it yourself too. The two feet of snow in your school-yard will be very quickly packed down so as to be no impediment to the players. Your most mischievous pupils are those who are the most active, and the football supplies a legitimate outlet for their energies, leaving them much more manageable in school.

As to what to play, owing to the great differences in size and strength of the pupils in a country school, the game under association rules, is I think, to be preferred to Rugby.

Occasionally, when there are not many players, the boys play cricket with the football, using wickets, etc., and following the rules of cricket, but placing one foot before the wicket and kicking the ball instead of using a bat.

FOX AND GEESE.

A very good game to play immediately after a fall of snow is "Fox and Geese." After the boys have tracked a large figure in the snow as below, one, the fox, takes his stand in the centre, while the rest, the geese, take any position on the tracks they choose. When all are ready, the fox rushes out (along one of the lines) and endeavors to touch any of the geese. When one is touched he assists to catch others, and so on till all are caught. No one may be caught while standing in the centre and no one may leave the track while playing. The first caught is the fox for the next game.



Skating and snow baling, which require no description here, about conclude the number of outdoor winter sports for the school.

WITHIN DOORS.

Provide yourself the following games, which may be obtained at any book store: Game of Authors, game of Legomachy, or War of Words, game of Nations, and Checkers. They will cost you about a dollar only, and you will find the money very well invested.

If you wish to get more than these, or others more expensive, your best plan is to hold an entertainment at the school and charge an admission fee of ten or fifteen cents; the proceeds will enable you to buy games sufficient in number and variety to keep your pupils happily busy in the playhour for many days to come.

But entertainments may be distasteful to you, and you may not feel called upon to lighten your purse as above mentioned. Then get your pupils to assist you in manufacturing "home-made" games which will, in some respects, prove more satisfactory than the purchased articles. Here are a few:

CARD GAMES.

Take some pasteboard boxes, or pasteboard in any shape, to school, and have your pupils cut sixty pieces an inch and a half or two inches square. Number these 1 to 15, four of each number. With them you may play "Snap," "Animal Grab," "Pig," and "Old Maid." Snap is played as follows: The cards are dealt face down, and held so by the players, an equal number to each. The one next the dealer lays down a card in front of himself, face up, and each of the others in turn does likewise. The first player then plays again, laying his card on the first one he played. This is continued till two players have on the cards at the top of their packs the same number; then each of these players calls out "Snap," the first to call taking up both packs, after which the play goes on as before. Continue till one player has all the cards.

ANIMAL GRAB.

In this the object is to get rid of the cards as quickly as possible, the first one out winning the game. Each player takes the name of some animal, easy or difficult, as he chooses. Then the game proceeds as in "Snap," except that when two turn up similar cards, each calls out the name chosen by the other, the last to call having to take the both packs. If anyone call out when the cards do not match, he must take up the cards referred to. Game ceases when one player has all the cards.

OLD MAID.

The cards are dealt face down, except one which is put away without being looked at by any one. Then the players sort their cards, placing in the centre of the table, face up, all the pairs they may have. When all are sorted, the dealer holds his cards with their backs to the player next him, who draws one. If the card drawn matches one in his hand, he throws the pair into the centre and draws again; if not, he presents his cards for the next player to draw. This is continued till the cards are all matched except one, which, of course, is the mate of the one put away. The player holding the odd card is the "Old Maid" or "Old Bachelor," as the case may be. This game is sometimes called "Monkey," the last player being the "Monkey."

FIG.

Take as many sets of cards (four in a set), as there are players; shuffle and deal one at a time. When all are dealt, each person gives in rotation, a card to his left-hand neighbor. This continues till some player has four cards alike (a set), when he lays them upon the table, endeavoring to do so without attracting the attention of the others. As soon, however, as they notice it they place theirs down also, the last to do so being the "Fig."

SLAP JACK

Is like "Snap," except that all play to one pile in the centre, and that when a card is played on a similar one, any person holding cards may call "Snap" and take the whole pile.

BEAN BAGS.

Procure a board two or three feet long and a foot or more wide; make near one end a round or square hole six inches in diameter, after which get your pupils to bring to school half a dozen small bags, made of any material, of two sizes and filled with beans.

Play as follows: After sides are chosen, the board is leaned against the wall, and the players, standing seven or eight feet from it, endeavor to pitch the bags through the aperture; the sides throw alternately, each person using the six bags. Game 100, small bags to count 5 and larger ones 10 each.

A more elaborate board is had by making three holes, one just large enough for the bags to pass through, at the top right hand side, a larger one below this to the left, and a still larger below the second to the right. In this the bags should be all of the same size and the count will be 15 for putting a bag through the smallest hole, 10 and 5 for the others.

A support may be nailed to the board to obviate the necessity of leaning it against the wall.

RINGS.

Make from heavy wire four rings of 2, 3, 4 and 5 inch diameters respectively; cover them with cloth, if you choose. Next get a round or square board of about fifteen inches diameter, and on its centre fix a peg a foot high; around this at six inches distance place a circle of six-inch pegs. The players stand at some short distance and throw the rings over the pegs, the count being 5, 10, 15 or 20 according to the size, if thrown over the small pegs; if over the large peg, 10 more.

Another way: In a board place obliquely ten to fifteen six-inch pegs (nails will do instead of pegs in this and the first also), and under each write a number to represent its value. Lean the board against the wall and throw as in the first. The rings must be all of the same size, and the score is found by adding the values of the pegs which have caught rings.

Besides the above, various other games may be played with both bean bags and rings. I may hint that a few chalk-marks on the floor will supply you with several. In my next paper I shall describe some indoor games needing no apparatus.

SUGGESTIVE MOTTOES FOR LESSONS ON TEMPERANCE.

The following are a few of the mottoes used by Mr. William Livesey to illustrate his physiological lectures on alcohol:

Digestion is completed in three stages—
First, in the mouth, with the saliva.
Second, in the stomach, with the gastric juice.
Thirdly, in the small bowels, with two juices.

Alcohol injures the mouth digestion.
Alcohol injures the stomach digestion.
Alcohol injures the bowel digestion.
Alcohol injures the purification of blood in the lungs.
Alcohol injures the blood when it is pumped.
Alcohol injures every organ of the body.

Ale cannot strengthen our bodies.
Ale does not quench thirst.
Ale does intoxicate.
All intoxicating liquors injure the body.
Therefore, ale injures all who drink it.

To ensure Good Health:
We must have pure air.
We must drink pure water.
We must eat wholesome food.
We must not drink any liquors that contain alcohol.

—Temperance Record.

For Friday Afternoon.

THE SLAVE MOTHER'S LAMENT.

J. G. WHITTIER.

"THE Virginia Slave Mother's Lament," wrote John Bright, "has often brought tears to my eyes. These few lines were enough to arouse the whole nation to expel the odious crime of slavery."

Gone, gone—sold and gone,
To the rice-swamp, dark and lone.
Where the slave-whip ceaseless swings,
Where the noisome insect stings,
Where the fever-demon strews
Poison with the falling dews;
Where the sickly sunbeams glare
Through the hot and misty air.
Gone, gone—sold and gone,
To the rice-swamp, dark and lone,
From Virginia's hills and waters;
Woe is me, my stolen daughters!

Gone, gone—sold and gone,
To the rice-swamp, dark and lone.
There no mother's eye is near them,
There no mother's ear can hear them;
Never, when the torturing lash
Seams their back with many a gash,
Shall a mother's kindness bless them,
Or a mother's arms caress them.

Gone, gone—sold and gone,
To the rice-swamp, dark and lone.
Oh, when weary, sad and slow,
From the fields at night they go,
Faint with toil, and racked with pain,
To their cheerless homes again—
There no brother's voice shall greet them—
There no father's welcome meet them.

Gone, gone—sold and gone,
To the rice-swamp, dark and lone.
Toiling through the weary day,
And at night the spoiler's prey.
Oh, that they had earlier died,
Sleeping calmly, side by side,
Where the tyrant's power is o'er,
And the fetter galls no more!

Gone, gone—sold and gone,
To the rice-swamp, dark and lone.
By the holy love He beareth—
By the bruised reed He spareth;
Oh, may He, to whom alone
All their cruel wrongs are known,
Still their hope and refuge prove,
With a more than mother's love.

A GOLDEN RULE.

THERE'S one safe rule I should like you to know,
It will often help you as onward you go—
When you're not quite sure what you ought to do
Just do to others what you'd like done to you.

If you meet a comrade in pain or grief,
Don't turn away coldly and not give relief;
Think of this rule, and without more ado
Just do unto him what you'd like done to you.

Should you have enemies hard to forgive,
With whom it is difficult friendly to live.
This golden rule will again help you through;
Forgive and forget, as you'd like them to do.

When angry, and wishful hard words to say,
Or longing unkind actions back to repay,
Don't speak or act till you've thought of your rule,
'Twill then be quite easy to keep yourself cool.

With this rule in mind each day that you live,
You'll find it a pleasure hard words to forgive;
Whatever may chance, you'll know what to do,
To others just do what you'd like done to you.

Book Notices, etc.

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

American Mental Arithmetic. By M. A. Bailey, A.M., Professor of Mathematics in Kansas State Normal School. American Book Co 160 pp.

To every teacher who has to handle junior classes this is a helpful book. Lying on the teacher's desk it will supply busy work for certain hours between lessons. It is a piece of good work by a clever teacher, and is as full as an egg, of well-graded exercises.

Six Years' Pupil Teachers' Questions. 1886-1891. 188 pp. 3s. 6d. London: Moffatt & Paige.

Every public school teacher will find this book extremely useful for giving short home exercises to 4th, 5th and senior classes in arithmetic, algebra, grammar, composition, history, geography, geometry and mensuration. The answers are given to the mathematical questions.

Extracts from Eutropius. Edited by J. B. Greenough, Professor of Latin in Harvard University.

This is the first of a series of "sight pamphlets" published by Ginn & Co. It cannot be commended too highly. The introduction, containing Prof. Greenough's well-known theory of the Latin order of words, is particularly good.

Eutropius: Books I and II. Macmillan's Elementary Classics. By W. Welsh and C. G. Duffield.

Supplied with notes, vocabulary and composition exercises, and intended as a first Latin reading-book.

Virgil's Aeneid. Books I.-VI. Edited by Wm. R. Harper, Ph.D., President of the University of Chicago, and Franz D. Miller, Ph.D., Instructor in Latin in the same. The American Book Company.

Dr. Harper's name will at once explain the plan. It is of course, a further application of his "inductive" method, and is quite similar to his edition of Caesar's Gallic War.

As a piece of book-making this is beyond question the most handsome school edition of Virgil—or perhaps of all classical authors—ever published. A novel feature is the great abundance of parallel passages from English and Italian authors, given in full in the foot-notes.

The introduction abounds in most valuable matter, though one cannot but think that the "inductive study" in the principles of quantity leaves the "golden mean" far behind. This edition does not

(Continued on page 315.)

The Educational Journal.

Published Semi-monthly.

A JOURNAL DEVOTED TO LITERATURE, SCIENCE, ART
AND THE ADVANCEMENT OF THE TEACHING
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J. E. WELLS, M.A. Editor.

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As many people, either thoughtlessly or carelessly take papers from the Post Office regularly for some time, and then notify the publishers that they do not wish to take them, thus subjecting the publishers to considerable loss, inasmuch as the papers are sent regularly to the addresses in good faith on the supposition that those removing them from the Post Office wish to receive them regularly, it is right that we should state what is the LAW in the matter.

1. Any person who regularly removes from the Post Office a periodical publication addressed to him, by so doing makes himself in law a subscriber to the paper, and is responsible to the publisher for its price until such time as all arrears are paid.

2. Refusing to take the paper from the Post Office, or requesting the Postmaster to return it, or notifying the publishers to discontinue sending it, does not stop the liability of the person who has been regularly receiving it, but this liability continues until all arrears are paid.

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T. G. WILSON, Manager.

✻ Editorials. ✻

TORONTO, MARCH 1, 1893.

OUR PRIZE COMPETITION.

WE are sorry to find that two or three errors occur in the prize list which we published in our last number.

(1) Through oversight of the published condition that no one competitor could receive more than two prizes, we announced that three had been awarded to Miss Mary Agnes Watt, viz.: first prizes in Composition and Literature, and second prize in Temperance. Of course we must abide by the conditions. We have, therefore, no alternative but to correct the announcement. Miss Watt will retain the two first prizes which she has won, and will have in addition the honor of standing first on the list for the third. We shall have to communicate with the Examiners in order to ascertain whether there is a second competitor in Temperance whose paper is good enough to be awarded the second prize. This we cannot do in time for this issue, but we will make the announcement, if any, in our next number.

(2) Mr. Thomas Hammond, of Aylmer, who was announced as the winner of the

first prizes in Temperance and Arithmetic, hastens to inform us that there is an error in respect to the Arithmetic, as he did not write on that subject. The mistake arose from the fact that two or three competitors chose the same motto, "Maple Leaf." The mottoes were numbered by the Examiners, but a confusion has arisen in some way. We cannot be sure which of the other papers bearing the same motto is winner until we have had time to communicate with the Examiners, which we will do immediately, though we cannot, we fear, receive answers before going to press.

(3) The winner of the first prize in Grammar, "Trifles make up Perfection," is Mrs. M. J. Gahan, of London.

We are sorry to be obliged to keep any of our competitors in suspense and will communicate with the successful writers as soon as their identity is clearly ascertained. The above explanations will account for any little delay in communicating with the prize-winners, as the Publishers wish to have everything "straight" before completing their part of the arrangement.

THE PREVENTION OF CRUELTY.

WE have had before us for some time the annual reports of two societies with whose work and objects we have the deepest sympathy, and which, by reason of their relations to the formation of character in the young, as well as for other strong reasons, should have the sympathy and aid of every teacher. We refer to the Humane Society and the Children's Aid Society of this city. We regret that through oversight, caused by pressure of various duties and interests, we have so long neglected to call the attention of our readers to the noble efforts of the workers connected with these Societies, and their need of all the aid, financial and moral, which can be given them from those who have hearts to feel for the sufferings of the helpless, whether of their own race, or of the inferior animals—especially when those sufferings are inflicted by the culpable thoughtlessness or wanton cruelty of human beings.

The promoters of the objects of the Humane Society are engaged in a work that is particularly thankless, and in many respects discouraging. As an influential friend of the movement says in a note, they get "as many sneers and gibes and unkind criticisms as fall to the lot of most benevolent enterprises." Hence there is the greater need that those who are capable of appreciating the true value and nobility of the service they are rendering to humanity should not forget their disinterested efforts, or be backward in giving substantial proofs of their appreciation.

There is one view of the subject which is not, perhaps, sufficiently dwelt upon, and which teachers should be specially ready to understand. We refer to its educational and moral influence. It is a noble task to alleviate in any way the sufferings of any of God's creatures. But it is, perhaps, a still nobler one to be the means of refining and softening and elevating the characters of men and women of the present and coming generations. As there is no vicious habit more debasing than that of cruelty to the weak and helpless, so there is no influence which tends more directly to refine and ennoble individual and national character than that which begets and cultivates pity for suffering, and kindness and mercy to all living beings.

We are glad to perceive that Mr. Coatsworth, one of the members for the city, has before Parliament a Bill to amend the Act already in existence and to make further provision as to the prevention of cruelty to animals. Some of the provisions of this measure will, if it becomes law, aid materially in the work of the Humane Society. We are sorry that the limits of our space will not permit of special reference to those provisions on this occasion, but if we are favored with a copy of the Act as finally passed, we shall be glad to make known the state of the law so far as may be necessary for the guidance and help of those interested in the matter.

It is almost too late to enter into particulars with reference to the work of the Children's Aid Society during the first year of its operation. We have simply space to say that that work amply justifies its existence and suggests the grand service it may render in the future, if only generously supported and encouraged. The Shelter is but one branch of its work, yet no less than thirty-one children were cared for during the first seven months after it was opened, while five lost ones were restored to their parents in different parts of the Province. This was merely a beginning.

But there are so many things that we should like to say with reference to these two Societies and their work, and especially with reference to the educational features and aspects of that work, that we must return to the subject in a future number.

A NEW ARGUMENT FOR THE ROD IN SCHOOLS.

THE *Schoolmaster*, the doughty champion of the precious right or privilege, whichever it may be, of the teacher to administer to refractory pupils, when in his or her judgment it is necessary, "a good sound thrashing," returns to the subject in a recent number as follows:

As to that school of sentimentalists who glibly roll off platitudes about the ease with which moral suasion and personal exhortation alone may be effectively wielded to win exuberant youth into the ways of self-denial, self-restraint, and self-rule, we can have nothing in common. Neither can we hope by argument to convince. Having taken up a position without reason, reason will be advanced against their mental attitude in vain. If, in spite of the *Lancet's* dictum that "physical punishment is indispensable," and that of the *British Medical Journal* that "reasonable chastisement is a useful discipline," backed by Lord Chief Justice Cockburn's opinion that "it is for the general benefit of Society, and especially of its youth, that the authority of those charged with the care of great scholastic establishments should be maintained;" if, in spite, we say, of such weighty testimony as this, these good souls still remain stiff-necked in this matter, nothing we can hope to say is likely to have any influence with them.

Having thus expressed once more, in this vigorous fashion, its chronic contempt for those who are so sentimental, or so infatuated, as to regard children of school age as rational and moral beings, capable of being ruled by higher motives than fear of physical pain, our contemporary proceeds to the main contention of its lengthy article, which is an earnest protest against the system at present in vogue in England, under which "the wholesomeness of occasional and reasonable personal punishment" is admitted, but the right to administer it is restricted to the jurisdiction of the head certificated teacher in each school. *The Schoolmaster* is, we are bound to say, making progress, for it makes common cause with the various Committees of the Boards of School Management who are now, it seems, considering this question, so far as to wish with them to see corporal punishment reduced to a minimum. This is so far good, albeit perhaps a little illogical, for if physical punishment is so indispensable and so salutary as the authorities quoted affirm, why deprive the children of a portion of its benefits by reducing it to a minimum? Why administer the tonic, or stimulant, or moral restorative, or whatever it be, in homœopathic doses? It may indeed be possible to have too much even of so good a thing, but why go to the other extreme and deal it out in the most niggardly fashion possible? The Editor is more consistent when he goes on to plead for "the investment of the responsible certificated teachers of the country, each and all, whether at the head of a department or of a class, with the right, when and where necessary, to administer wholesome, judicious and salutary personal punishment." The principle underlying this appeal is sound. We have great sympathy with the

view that nothing is more unfair to a subordinate teacher, or more detrimental to discipline, than this method of tying the hands—we use the expression metaphorically—and weakening the authority of a subordinate teacher, by compelling him to refer every question of discipline to the head-master. Few positions are more trying than that of a teacher so restricted. This principle has a direct bearing upon the question of supervising principals, now under discussion in Toronto.

This is, however, by the way. We have neither right nor wish to intervene in that discussion. But the question brought to the front in the extract we have given is one which concerns the profession everywhere, and one in regard to which we claim, therefore, the right to consider any argument, pro or con, which may be advanced anywhere. The reader will observe that the chief authorities quoted are medical. When the *Lancet* and the *British Medical Journal* come forward to defend the practice may it not be reasonably inferred that they do so on professional grounds, and that by experiment or otherwise, they have made the discovery that "a good sound thrashing" at proper intervals is beneficial to the health of the recipient, and that in pronouncing it "indispensable" they imply that there can be no healthy physical development without it. Here, surely, is a brand new argument for corporal punishment in the schools. We can well understand that, in view of the sedentary habits of teachers, and the neglect of physical exercise of which many of them are too often guilty, a frequent vigorous wielding of the rod or ferule may be very conducive to their physical health, but it has never before occurred to us that the victim was a sharer in this particular benefit. From the new point of view, it is evident that the child who, from amiability of disposition, or excellence of home-training, fails to furnish sufficient occasions for the disciplinary process, is an object of commiseration, doomed, it may be, to drag out a feeble existence, or drop into an untimely grave, all for the want of the "indispensable" "thrashings."

But, seriously, a word as to the suppositional "sentimentalist" with his "platitudes" about moral suasion and personal exhortation. The use of these expressions shows how far our English contemporary is from comprehending the principles and methods so strongly deprecated. Nothing can be plainer than that the question is one of principles and methods, rather than of feeling or sentiment. The principles involved regard first, the moral right of the parent to delegate to the teacher or to any other

person, the right to inflict personal chastisement upon his child; second, the possibility of producing any good moral effect upon the child by means of such chastisement where the sacred parental and filial relationship is absent; and third, the question whether the infliction of personal chastisement is not derogatory to the self-respect of the teacher and the dignity of the profession, and so one important cause of its failure to take rank with other learned professions.

No less important is the theory which has been again and again demonstrated, and is being daily demonstrated in hundreds of schools, that every legitimate end can be much better secured by the use of other judicious methods and motives by a teacher of character, tact, and mental resources. And no one without these has a right to be in the teacher's place.

IN response to our request that any teacher who had successfully dealt with the difficulty of getting timid pupils to speak distinctly in class, would give fellow-teachers the benefit of his experience through our columns, "A. M. H." says: "I can give the experience of one of my teachers with myself. Each successive teacher had the same trouble with me. It seemed to me that I could not speak distinctly. I think I was really afraid of the sound of my own voice. Sometimes, when the teacher scolded me, I could not answer at all. When I was about fourteen, a new teacher tried a new plan. She did not scold me, but kindly and patiently corrected me. She gradually won her way into my heart, until I would do anything to give her pleasure. Her difficulty had vanished, and I spoke as distinctly as the others. I hope my experience may help you in giving advice to other teachers on the subject."

WE have to crave the indulgence of several of our subscribers, whose communications to our "Question Drawer" have remained too long unanswered. February is a short month, and to those whose time is very fully occupied the deduction of two or three from the ordinary number of working days in the month is a serious matter. The additional work connected with the Prize Competitions has added to the difficulty and compelled us to hold over this department for another fortnight. If our correspondents will examine the proper departments in the next number, and that following it, they will, we hope, find answers to most or all of the queries sent. And here let us again remind our friends that they will facilitate matters if they will classify their questions and address them to the editors of the several departments: English, Mathematical, Scientific, and Primary. All appropriate general questions, not coming under either of these heads may be addressed as hitherto, to "The Editor." In all communications please write plainly and only on one side of the sheet.

* Special Papers. *

THE VILLAGE SCHOOLMISTRESS.

(From The Schoolmaster.)

IN good sooth an idyllic title! Shenstone's self alone might do it justice. But these are times when Fact had need push Fancy out, and painted Imagery give place to russet Truth. To come at once therefore to things prosaic, there are roughly 1,300 village schools in this country with a normal average attendance in each case of forty or fewer pupils, and there are 4,000, in each of which the average attendance ordinarily ranges between forty and sixty children. The great number of these diminutive establishments are under the care of mistresses, and a more shamefully underpaid, overworked, and generally unfairly treated body of public servants it would be difficult, if possible, to conceive. The chain is no stronger than its weakest link. Unionists, anxious for the professionalism of the teaching body, must concentrate their forces unceasingly, pointedly, and uncompromisingly upon the condition of the men and women—especially the latter—in their ranks who stand upon the bottom rung of the ladder. They must be induced to see, and the sooner the better, that through professional combination alone can amelioration be effected; and when they have learnt this lesson it will be possible for the Union effectually to demand on their behalf—over and above the general educational and professional reforms, the benefits of which they necessarily share in common with all teachers as a result of the Union's advocacy—treatment far more adequate and in consonance with the value of their services to the State than they at present enjoy.

Consider a moment the case of the village schoolmistress of whom we write. As there are only 230 provisionally certificated women teachers at work, and by no means all of these as head teachers, it follows that the great bulk of the rural schoolmistresses are duly certificated, and in many cases after an expensive college course of two years' training. In their preparation for the Certificate Examinations, to say nothing of the earlier studies of apprenticeship and their own private reading, they have tasted the sweets of literature and culture. Scott has romanced at his best for them and Shakespeare yielded of his sweetest imaginings. Written imperishably in the tablets of their memories are "jewels one line long" from Milton, Byron, Wordsworth, and Tennyson. In the matter of the work proper for which they are designed they have gone minutely into subtle questions relative to the training of the senses and of the memory, and have, with much weariness of the flesh, acquainted themselves with nothing less than "the order in which the faculties of children are developed!" More than this, that profound branch of pedagogies, mental science, has been investigated, "the processes of reasoning" determined upon, and "the formation of habits and character" technically ascertained. Probably a little French has in some cases been added, to say nothing of a thorough training in "the language, style, and contents" of the "Reflections on the French Revolution," or the "Ode to Duty," for choice. Such trifles as the "Effects of Climate on Industry;" "General Rules relating to Voice Training;" "The Constitutional Changes of the Tudor Period;" and so on, may be disregarded as negligible quantities in the sum total of the literary and professional accoutrements with which the rural schoolmistress equips herself before essaying the altogether lovely task of doing battle with ignorance in the byways of Village England. How lofty her ideals! How instantly shattered!

If there was nothing but the brutal severity of the work, that alone would be sufficient to crush the womanhood out of the most ardent and enthusiastic. There is the rural schoolmistress with her little flock of from thirty to forty around her, setting herself down seriously and soberly to carry forward the work of very nearly a score of subjects, each divided into almost as many different stages as she has pupils, and compelled in many cases to crown the edifice with the comment "Alone I did it!" Picture her teaching two or three stages of drawing with one hand, as many grades of needlework with the other, and superintending at the same time the "varied occupations" of the infants! Will the Examiners of the Department,

by way of giving the school management' questions of next December that practical turn without which they are largely useless, kindly oblige a wondering world and put the query "How on earth she manages it!" And will they offer a reward of priceless value for the rare genius which shall evolve a complete and satisfying answer?

The village schoolmistress! Every condition takes arms against her. Her school, the scene of her daily labors, is, in many cases, calculated to depress the spirits of anything short of a Spartan, not to mention the fact that it is often so designed as to render efficient work all but out of the question. The room itself is far too often a mere whitewashed barn, its damp, unplastered walls innocent of ornament save for a few ancient maps that saw the light of day while Africa was yet a howling wilderness and long before the Rhine ceased in part to limit Eastern France. Desks that were young with the grandfathers of the pupils that now sit in them; floors that have grown rough and gnarled with age; and windows and doors that periodically give inclemency an opportunity of scoring an easy victory over primitive carpentry. Then there is the management; that source of support to which she should first turn for sympathy, and upon which she should lean when sick with the trials and anxieties of the day's round. The management! Often, we gladly and gratefully admit, genuinely willing to second her weary efforts with words of advice and encouragement. But how often a coterie of mean and vulgar illiterates, the record of these columns bear ample witness. How often, too, a high-stomached autocrat, betwixt the wind and whose nobility the village schoolmistress dares only go with trembling! It will probably come as a revelation to her urban sister that there are clergymen in the country at this moment who scorn the idea of addressing the village teacher either verbally or by letter as "Miss So-and-so;" the case is met, according to their canons, by styling her "Jane So-and-so!" It is a small point, and the cases are probably rare, but it is significant of much.

Finally, of those who form her professional environment, there are the parents and the inspectors. With the parents it is, unfortunately true that her best endeavors are only too frequently misunderstood. When she is striving her hardest they are as likely as not vowing the direst vengeance upon her devoted head, although, let it be said to their credit, it is equally true that many of them are keenly grateful to her for what she is doing in their hopefuls' behalf, and it is this fact perhaps, more than any other, that makes her work at all endurable. As for the inspectors, we should distort facts did we not freely admit that most of them come to the situation with a broad view of the conditions, and treat the case humanely and with consideration. Others, however, come with a "My business is to administer the Code, nothing more and nothing less" upon their lips, and nothing short of the official pound of flesh, good weight and turning the scale, satisfies these punctilious and hypercritical representatives of Her Majesty. Happily these gentlemen are beginning to learn that the Code the Department intends to have read into the official document is the Code of Common Sense and Consideration. As soon as that is driven unmistakably into the Inspectorial cranium—wherever it has not as yet penetrated—the rural wheels will run more smoothly.

In the matter of emoluments we sincerely hope, failing other and confessedly preferable means of improvement, that the date is not far distant when the National Union of Teachers will be in a position to say to the country respectfully, but decidedly: "We do not think the teachers in English State schools should be so abominably paid as these women are, and we look to the good sense of the public so far to appreciate the value of the work being done in their village schools as to secure for the teachers better treatment. Further—we mean to have it!" Here are to-day 314 rural head mistresses, at least a third of whom are fully certificated, working for less than £40 a year or under fifteen shillings and four pence per week! Why, the factory hand would laugh at it! Added to these there are 504 other head mistresses whose annual stipends fall between £40 and £45 a year; and still 664 more head teachers whose salaries range from £45 to £50 per annum. In other words, 10 per cent. of the women in charge of our English schools are working for less than twenty shillings a week. What do women workers everywhere think of the

statement? And supposing these payments were raised to that limit, let us come to an analysis of a twenty shilling weekly wage. Put two of those shillings by for books, and these she cannot be without if for no other reason than the fact that she must keep pace with the rapid developments in her professional work; put another two aside for those long weary journeys to the drawing and other classes held miles away in some neighbouring village or township; allow her three shillings a week for clothing, and do so with the very serious doubt as to whether it will then be possible for her to look appropriately "respectable" at the figure; earmark still another two for her sustenance during the holidays and by way of paying her fare home now and then; and she is left with eleven shillings a week for lodging, food, washing, and all the other incidents of expenditure not yet entered in our inventory of items, including, of course, membership to a Union, which, whilst we admit she can least afford to join, we also emphatically insist she can least afford to remain outside.

And where and how is she housed and fed; and what is her home life? In many cases the conditions of the appointment render it practically essential that a relative shall accompany her and share the little schoolhouse with her. She may consider herself fortunate if she is in a position thus to lay claim to a relative's kind offices; if not, she not infrequently find that she has to be her own domestic servant out of school hours. Failing the "schoolhouse" itself, by no means an ambitious, roomy, or convenient mansion, there is the fraternising with the family of the small, the very small, farmer, or the farm laborer. Her housemates are usually uncouth, sometimes kindly, sometimes the reverse. Her eleven shillings a week for food and housing ekes out fresh meat at mid-day at most once or twice a week. Happily fresh eggs and milk are usually cheap and easily obtainable. As to privacy, the contracted limits of the dwelling, and the demands made upon it, render that luxury quite out of the question. It is not always assured to her that it will be possible to set aside even a sleeping room for her exclusive use. If she is town bred, the blackness of night in the country terrifies her at first, and she stumbles through the mud and slush of the country lane to and from the choir practice and the evening meeting with her heart in her mouth. The "Parish Lantern" becomes a factor in her existence, unconceived of in the days when the moon was especially interesting in connection with model answers on the phenomenon of tides, and altogether a mere abstract item of Schedule V. of the Code and of the text books written in elucidation thereof.

What recreation has she for the long winter evenings? Of society there is little or absolutely none. Foregathering with the villagers requires a very delicate and discriminating hand. Whilst in many cases the vicar and his family, we gladly admit, do what they can to alleviate the deadly dreariness of her daily life, in many other cases they do not realise the fact that she has any existence whatever outside of her school. Generally, and for very good reasons, she sits at home in her humble lodgings, and expends much effort in the endeavor to find a corner that shall not be in the direct line of the draught. It is possible that an armchair or a lounge may now and then be her portion, but not often. Recreative books are few, and she generally manages to get through the whole of the stock of which the village boasts during the first few months of her sojourn in the locality. If there is a musical instrument in her lodgings it is usually her own property, and in order to obtain it out of her slender pittance she has had to pinch herself week by week. It is true there is an asthmatical little harmonium, with a very loud bass and a very soft treble, in the schoolroom, but for a least half the year the cold and the darkness conspire to render its use not to be thought of; and of the organ in the village church the same may be said. Altogether the case of the rural schoolmistress is one that calls aloud for redress. Our men teachers cannot afford to neglect this question. That "the Woman's cause is Man's!" is especially true in this case, and we have dwelt upon the matter because we want to know whether the time has not now come for a very special endeavor on the part of the Union to improve the conditions of service of the rural schoolmistress, and thereby, and to that extent, confer a benefit upon the cause of Education and upon the whole teaching profession.

Examination Papers.

EDUCATION DEPARTMENT, ONTARIO.—
ANNUAL EXAMINATIONS, 1892.THE HIGH SCHOOL JUNIOR LEAVING AND UNIVER-
SITY PASS MATRICULATION.

ENGLISH COMPOSITION.

Examiners: { W. J. ALEXANDER, PH.D.
J. E. BRYANT, M.A.
F. H. SYKES, M.A.

NOTE.—The candidate will write on *one*, and only one, of the following themes.

1. On Reading: Why, What and How we should Read.
2. Scottish Life and Manners, about 1700, as portrayed in "Waverley."
3. A Canadian Village.
(The candidate may describe any village with which he happens to be familiar. Any proper names that he uses must be fictitious, not real names.)
4. The Delineation of Character in the work of Sir Walter Scott.
5. "Of Queens' Gardens": A Synopsis of Mr. Ruskin's Lecture.
6. An Ideal School.
7. John Ruskin.
(It is suggested that the candidate here give his impressions of Mr. Ruskin as a man and as writer, as seen especially in "Sesame and Lilies.")

ENGLISH GRAMMAR AND RHETORIC.

Examiners: { W. J. ALEXANDER, PH.D.
J. E. BRYANT, M.A.
F. H. SYKES, M.A.

NOTE.—In section A candidates for the Junior Leaving Examination will take question 1, and any three of questions 3, 4, 5, 6 and 7. Candidates for Matriculation will take questions 1 and 2 and any two of the remaining questions.

In section B candidates for the Junior Leaving Examination will take questions 8, 9, 11, and candidates for Matriculation may take any three questions of the section.

A.

Softly as a cloud we go,
Sky above and sky below,
Down the river, and the dip
Of the paddles scarcely breaks,
With the little silvery drip
Of the water as it shakes
From the blades, the crystal deep
Of the silence of the morn,
Of the forest yet asleep,
And the river reaches borne
In a mirror, purple grey,
Sheer away
To the misty line of light,
Where the forest and the stream
In the shadow meet and plight,
Like a dream.

From amid a stretch of reeds,
Where the lazy river sucks
All the water as it bleeds
From a little curling creek,
And the muskrats peer and sneak
In around the sunken wrecks
Of a tree that swept the skies
Long ago,
On a sudden seven ducks
With a splashy rustle rise,
Stretching out their seven necks,
One before and two behind,
And the others all arow,
And as steady as the wind
With a swivelling whistle go,
Through the purple shadow led,
Till we only hear their whirl
In behind a rocky spur,
Just ahead.

Archibald Lampman: *Morning on the Liefvres.*

1. Give a grammatical analysis of the above extract so far as to show the kinds and relationships of its several clauses other than those of which the verbs are wanting.

2. (a) Point out (i) the prepositional adjective phrases, (ii) the prepositional adverb phrases, in the extract, and show their relations.

(b) Pick out from the first sixteen lines of the extract the words which are (i) *frequently but not generally*, (ii) *generally but not always*, used in sentences so as to have grammatical values other than those they have in the extract. (NOTE.—Make your meaning clear by specifying the grammatical values which you refer to in your answer.)

3. (a) Pick out the participial adjective phrases in the extract, and show their relations.

(b) Pick out the participles in the extract that are used as simple attributes. In what respect, if any, are these participles to be distinguished from adjectives?

(c) What is the distinction between a participle and a participial adjective phrase in respect of the nature of the relation they may sustain to the substantives they are construed with? Illustrate your answer by references to examples of the distinction in the extract.

4. (a) How far would it be right to say that a word is a *transitive verb*, or an *intransitive verb* (as the case may be), supposing the word to stand by itself and not to form part of a sentence?

(b) Classify the verbs in the extract in regard to their being transitive or intransitive. In the case of the *transitive* verbs point out their objects. In the case of the *intransitive* verbs point out

- (i) those which are always used intransitively;
- (ii) those which are sometimes used as verbs of incomplete predication (giving illustrative examples);
- (iii) those which have cognate transitive forms (naming these forms);
- (iv) those which are sometimes used transitively;
- (v) those which are generally used transitively.

In the case of the last class specify those (if any) which seem to be here used by the poet intransitively with poetic license.

5. (a) Pick out the phrases in the extract in which the substantives are in *absolute construction*. Show by supplying words, or by paraphrasing, that while the substantives are thus absolute the phrases are not; but that they sustain grammatical relations to other parts of the sentences in which they are found. Name and describe these relations.

(b) What is always the essential accompaniment of a noun or pronoun used in absolute construction? Show that these accompaniments are present in the phrases you have picked out.

(c) Explain the meaning and grammatical function of "sudden" (line 25).

6. (a) Pick out, in the extract, the adjectives and adjective equivalents, that are used *appositively*, and point out the substantives with which they are construed. In the cases of the adjective equivalents supply the words necessary to show that they are equivalents and not true adjectives; hence make plain what are the *real* grammatical functions of these equivalents.

(b) Deal fully with the following words: (1) "from amid" (line 17), (2) "in around" (line 22), (3) "in behind" (line 34), discussing the meaning and grammatical force and relation of the words.

(c) Discuss the grammatical force and relation of "purple grey" (line 11), and "long ago" (line 24), (i) dealing with each word separately, (ii) dealing with the words as phrases.

7. (a) Pick out the *abbreviated clauses* (namely, those lacking *verbs*) to be found in the extract. For each abbreviated clause supply the words necessary to make it complete. Hence show the syntax of the words supplied; also the grammatical relation of the whole clause.

(b) In the case of *one* of these clauses show how the introductory subordinating conjunction can be replaced by a preposition (or preposition-phrase) which with its object will give almost the same meaning as the conjunction and the complete clause. Hence discuss the propriety of calling the subordinating conjunction in such a case, a preposition.

(c) In the case of a *second* one of these clauses show how it is that the subordinating conjunction introducing it cannot be similarly replaced by a preposition.

(d) "Like a dream" (line 16). Show by illustrative sentences what is the primary and ordinary grammatical function of "like." Discuss the question whether "like" as here used (line 16) is adjectival, adverbial, prepositional, or conjunctive in its function. Show that there are *some* reasons for classifying its function in every one of these ways. (NOTE.—In answering this question supply the words necessary to bring out the full meaning of the line.)

B.

The life of the Custom House lies like a dream behind me. The old Inspector,—who, by the way, I regret to say, was overthrown and killed by a horse, some time ago; else he would certainly have lived forever,—he, and all those other venerable personages who sat with him at the receipt of custom, are but shadows in my view; white-haired and wrinkled images, which my fancy used to sport with, and has now flung aside forever. The merchants,—Pingree, Phillips, Shepard, Upton, Kimball, Bertram, Hunt,—these, and many other names, which had such a classic familiarity for my ear six months ago,—these men of traffic, who seemed to occupy so important a position in the world,—how little time has it required to disconnect me from them all, not merely in act, but recollection! It is with an effort that I recall the figures and appellations of these few. Soon, likewise, my old native town will loom upon me through the haze of memory, a mist brooding over and around it; as if it were no portion of the real earth, but an overgrown village in cloud-land, with only imaginary inhabitants to people its wooden houses, and walk its homely lanes, and the unpicturesque prolixity of its main street. Henceforth it ceases to be a reality of my life. I am a citizen of somewhere else. My good townspeople will not much regret me; for—though it has been as dear an object as any, in my literary efforts, to be of some importance in their eyes, and to win myself a pleasant memory in this abode and burial-place of so many of my forefathers—there has never been for me, the genial atmosphere which a literary man requires in order to ripen the best product of his mind. I shall do better amongst other faces; and these familiar ones, it need hardly be said, will do just as well without me.

Hawthorne: *The Scarlet Letter.*

8. (a) State the theme of the foregoing paragraph.

(b) Show briefly the bearing of each successive sentence upon the theme.

(c) Discuss briefly the unity of the paragraph.

(d) Account for the order in which the thoughts of the paragraph are presented; comment on the effectiveness of the order.

9. Discuss the effect on the style of the paragraph, if we substitute the following words for the words in the text:

(a) "old persons" (for "venerable personages," line 4);

(b) "men" (for "images," line 6);

(c) "merchants" (for "men of traffic," line 10);

(d) "to occupy" (for "to people," line 18);

(e) "of Lenox" (for "of somewhere else," line 21);

(f) "ancestors" (for "forefathers," line 25).

10. Show how the following phrases give merit to the style of the paragraph:

(a) "else he would certainly have lived forever";

(b) "sat at the receipt of custom";

(c) "my native town will loom upon me through the haze of memory";

(d) "the unpicturesque prolixity";

(e) "in cloudland";

(f) "genial atmosphere . . . ripen the best product of his mind."

11. State the qualities of style you judge the paragraph to possess; indicate in detail with each quality you mention the grounds on which you base your judgment.

THE University of Oxford has appliances for printing in one hundred and fifty different languages.

HARVARD College employs one hundred more teachers than Yale.

Mathematics.

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

PROBLEMS AND SOLUTIONS.

In the December number, p. 220, ten questions suitable for Public School Leaving and Primary Examination were given. Here follow *Skeleton Solutions* to the same:—

- 20d. + 3₁₁d. = 23₁₁d. = 1s. 11₁₁d.
- Expression = sq. rt. of $\frac{8640 \times 753}{391} = 12^2 \times 3^2 \times 2^2 \times \frac{1255}{391}$
= 72 x sq. rt. of 3.209718+, which = 72 x .5664 = 41 nearly.
- $1\frac{5}{8} \times 10.618 \div 2\frac{5}{8}$
= 15,475 x 10.618 ÷ 26,545
= 3095 x 10.618 ÷ 5,109 = .006432 +
- $\frac{1}{2}$ less in price will require $\frac{1}{2}$ more in number to maintain the same cost price.
∴ 120 apples = $\frac{1}{2}$ number sold for \$5; No. = 480.
- 1 man + 1 woman + 2 boys + 1 girl get \$100; also per question
(2 boys + 1 girl) + (2 boys - 1 girl) + 2 boys + 1 girl get \$100
i.e., 6 boys + 1 girl get \$100. A.
Again, 1 man + 1 girl get \$50; and by the question this means (2 boys + 1 girl) + 1 girl get \$50; or 1 boy + 1 girl get \$25. B.
Compare A and B and 5 boys get \$75, etc.
Ans.—Boy \$15, girl \$10, woman \$20, man \$40.

- 1 metre = 39 $\frac{2}{3}$ ÷ 36 = 3 $\frac{2}{3}$ yd.;
1 franc = £ $\frac{1}{25}$; 42 centimes = £ $\frac{42}{2500}$. 3d = £ $\frac{1}{80}$.
No. yd. bot. = £1000 ÷ £ $\frac{3}{250}$ = 20,000 ÷ 3.
No. metres sold = $\frac{20,000}{3} \times \frac{32}{35}$. One-half @ 8 and one-half @ 6 = whole lot at 7 francs per metre.
Gain on whole = £ $(\frac{20,000}{3} \times \frac{32}{35} \times \frac{7}{25})$
- £ $\{ (1000 + \frac{20,000}{3} \times \frac{1}{80}) + (\frac{20,000}{3} \times \frac{32}{35} \times \frac{42}{2500}) \}$
= $(\frac{20,000}{3} \times \frac{32}{35} \times \frac{7}{25}) (1 - \frac{6}{100}) - (1000 + \frac{20,000}{3} \times \frac{1}{80})$
= $\frac{20,000}{3} \times \frac{32}{35} \times \frac{7}{25} \times \frac{94}{100} - 1000 (1 + \frac{1}{12})$
= $\frac{8 \times 32 \times 94}{15} - \frac{13000}{12} = \frac{7814}{15} = £520 \text{ 18s. 8d.}$

- Int. - Dis. = \$38.84 = Int. on Dis. = Int. on \$310.72.
∴ Rate = 3,884 ÷ 31,072 = $\frac{1}{8}$ = 12 $\frac{1}{2}$ %.
Sum = \$349.58 x 8 = \$2,796.64; rate per annum = 6 $\frac{1}{4}$ %.
- Price of wheat = \$6,000; cost of silk = \$5,500.
2nd commission = \$220; 1st com. = \$280 on \$6,000; rate = 4 $\frac{3}{4}$ %.
- $\pi r^2 \times 18 = 3 \times 1728$; $r^2 = (3 \times 1728) \div (2^2 \times 18)$
= 144 ($\frac{1}{11}$)
∴ r = 12 $\sqrt{\frac{1}{11}}$ inches = $\sqrt{\frac{1}{11}}$ feet; diameter = 1.59 feet.
- Let y and 4y be the segments of hyp. Then 5y = hyp. Let a and b be the sides of the triangle; then (Euc. I. 47) a² + b² = 25y². But in the two smaller triangles we have also a² = 16y² + 10²; b² = y² + 10². Hence we get
a² + b² = 17y² + 200, ∴ 25y² = 17y² + 200; y = 5
Area = $\frac{1}{2} \times 25 \times 10 = 125$

COMMERCIAL SPECIALISTS.

COMMERCIAL ARITHMETIC.

Examiner:—W. A. DOUGLASS, B.A.

- (a) INDICATE the method of constructing the following interest and annuity tables at t per cent. compound interest:

Years.	Amount of \$1 at end of any year.	Amount of \$1 yearly.	Present Value of \$1 at end of any year.	Present Value of \$1 yearly at end of any year.	Sinking Fund to Repay \$1.
1.	a.....	d.....	g.....	k.....	n.....
2.	b.....	e.....	h.....	l.....	o.....
3.	c.....	f.....	j.....	m.....	p.....

- (b) Show the relation of c to j, f to m, and m to p.
- (a) A mortgage for A dollars bearing t per cent., has n years to run, find its present value at v per cent.
(b) Show that in No. 1 j, h, g, l, a, b, c, form a continuous series.
(c) Indicate also the solution by logarithms.
- A town incurs a debt of \$10,000 and wishes to repay in 10 equal instalments, at 5 per cent. Find the instalment: given the present value of \$1 due in 10 years at 5 per cent. = .61391.
- Five men insure their lives for \$B each. The first dies at the end of the first year, the second at the end of the second year, and so on. At t per cent. what premium should each pay? Indicate the method of solution.
- The Ontario Government advertised for tenders for the purchase of terminal annuities \$4,000 every six months for 40 years. How much should a man pay to realize 6% yearly, compounded half-yearly? Log 1.03 = .0128372247 and .9730220 = Log .939771.

SOLUTIONS.

By J. H. PACKHAM, B.A., Owen Sound Coll. Inst.

1. (a)
 $a = 1 + t$
 $b = (1 + t)^2$
 $c = (1 + t)^3$
 $d = 1 + t$
 $e = (1 + t)$
 $f = (1 + t)$
 $g = 1 \div (1 + t)$
 $h = 1 \div (1 + t)^2$
 $i = 1 \div (1 + t)^3$
 $k = 1 \div (1 + t)$
 $l = \frac{(1 + t)^2 - 1}{(1 + t)^3 - 1} \div t(1 + t)^2$
 $m = \frac{(1 + t)^3 - 1}{(1 + t)^3 - 1} \div t(1 + t)^3$
 $n = 1 \div (1 + t)$
 $o = t \div (1 + t) \frac{(1 + t)^2 - 1}{(1 + t)^3 - 1}$
 $p = t \div (1 + t) \frac{(1 + t)^3 - 1}{(1 + t)^3 - 1}$

NOTES.—1. (a) "Amount of \$1 yearly" means the amount of an annuity of \$1, at the end of any year. The first payment is to be made at the beginning of the time,

hence $f = (1 + t)^3 + (1 + t)^2 + (1 + t)$
 $= (1 + t) \frac{(1 + t)^3 - 1}{(1 + t) - 1} \div t$

In the 5th column the first payment into the sinking fund is to be made at the beginning of the time, hence if s = yearly sinking fund

D = debt.
 $D = s(1 + t) + s(1 + t)^2 + \dots + s(1 + t)^n$
 $= s \frac{(1 + t)^n - 1}{(1 + t) - 1} \div t$
 $s = Dt \div (1 + t) \frac{(1 + t)^n - 1}{(1 + t)^n - 1}$ if D = \$1 and n = 3
 $s = t \div (1 + t) \frac{(1 + t)^3 - 1}{(1 + t)^3 - 1}$

(b) c : j = 1 : 1 ÷ (1 + t)⁶; or c = amt. of j for 6 yr. @ t%.

f : m = (1 + t)⁴ : 1; or f = amt. of m for 4 yr. @ t%.
 $mp = 1 \div (1 + t)^4$; or $1 \div m = \text{amt. of } p \text{ for 4 yr. @ } t\%$

2. (a) P.W. of face value of mtge. = A ÷ (1 + v)ⁿ
 Annual int. on mtge. = At.

P.W. of annual payments of int. = A t ÷ (1 + v)ⁿ - 1 ÷ v (1 + v)ⁿ.

∴ P.W. of mtge. = A ÷ (1 + v)ⁿ multiplied by $\frac{1 + t(1 + v - 1) \div v}{1 + t(1 + v - 1) \div v}$

(b) j, h, g, l, a, b, c are in geometric progression.

(c) The P.W. may be written
 $A \div (1 + v)^n + (At \div v) \frac{1 - 1 \div (1 + v)^n}{1 - 1 \div (1 + v)}$
 If u = 1 ÷ (1 + v)ⁿ this becomes

Au + At ÷ (1 - u) ÷ v, where log u = -n log (1 + v)

3. Let x = annual instalment, then
 $10,000(1.05)^{10} = x \{ 1.05^9 + 1.05^8 + \dots + 1.05 + 1 \}$
 $= x(1.05^{10} - 1) \div .05$

∴ 10,000 = x. $\frac{1 - .61391}{.05}$, and x = \$1295.03.

4. Let x = annual premium paid by each.

Then $5x + \frac{4x}{1+t} + \frac{3x}{(1+t)^2} + \frac{2x}{(1+t)^3} + \frac{x}{(1+t)^4} =$

P.W. of all premiums.

$B \left\{ \frac{1}{1+t} + \frac{1}{(1+t)^2} + \frac{1}{(1+t)^3} + \frac{1}{(1+t)^4} + \frac{1}{(1+t)^5} \right\}$

= P.W. of all death claims

∴ x = B $\left\{ \frac{1}{1+t} + \frac{1}{(1+t)^2} + \text{etc.} \right\} \div$

$\left\{ 5 + \frac{4}{1+t} + \text{etc.} \right\}$

The value of the dividend may easily be found from the 4th column of the table in Q. 1, and of the divisor from the 3rd column.

5. Let x = present payment; then from 4th column, Q. 1,

$x = \{ 1.03^{80} - 1 \} \div .03 (1.03)^{80} 4000$

= 4000 $\left[\left(1 - \frac{1}{1.03^{80}} \right) \div .03 \right] \dots \dots$

Let u = $\frac{1}{1.03^{80}}$; ∴ log u = -80 log 1.03

= -1.026977976

= 2.973022024

∴ u = .0939771.

∴ x = 4000 $[1 - .0939771] \div .03 = \120803.04 .

MR. W. PRENDERGAST, B.A., kindly contributes the following:—

In dividing by 73000 it is advantageous to do so by the following method:

Having written down the number to be divided, we write under it one-third of itself, then one-tenth of this second number, neglecting remainders, and lastly one-tenth of this third number. The sum of these four numbers, with the last five figures reckoned as decimals, will be the quotient required.

Establish the correctness of this method.

To what extent can its accuracy be depended upon?

Indicate a slight extension of the method, which will enable any required degree of accuracy to be obtained.—*Jun. Matric., 1890.*

(i) $\frac{1}{10000} (1 + \frac{1}{3} + \frac{1}{10} + \frac{1}{100})^N = \frac{N \ 411}{30000000}$

$\frac{411 \ N}{30000000} - \frac{N}{73000} = \frac{N}{730000000} = \frac{1}{10000}$ of $\frac{N}{73000}$

i.e., the error = one ten-thousandth of correct quotient, or, the method is approximately correct.

(ii) The result would be correct to 4 figures since the error is about $\frac{1}{10000}$ of the result.

(iii) Assumed quotient = $\frac{411 \ N}{30000000}$

Correct quotient = $\frac{N}{73000}$

CQ = $\frac{10000}{10001}$, AQ = AQ - AQ - $\frac{AQ}{10001} = AQ -$

$\frac{AQ}{10000} + \frac{AQ}{100010000}$

= AQ - $\frac{AQ}{10000} + \frac{AQ}{100000000} - \frac{AQ}{100000000000} + \text{etc.}$

i.e., the result may be made as accurate as desired by subtracting $\frac{1}{10000}$ of the result from itself, then adding to this remainder $\frac{1}{100000000}$ of the result, then subtracting $\frac{1}{100000000000}$ and so on.

MR. W. S. HOWELL, Sombra, contributes the following:—

"To find sets of whole numbers which represent the sides of right-angled triangles."

"Find seven different right-angled triangles in whole numbers having 24 as base, and give general formula." (P. 156, E. J., Oct. 1st.)

In every right-angled triangle whose sides are represented in whole numbers.

Let H - P = D. ∴ H² - P² = B², ∴ $\frac{H^2 - P^2}{H - P} =$

$\frac{B^2}{D}$. ∴ $\frac{B^2}{D} = H + P$ when H - P = D.

In order to avoid solutions giving results in fractional numbers:—

(a) Let D be even when B is even.

(b) Let D be odd when B is odd.

(c) Let D be a measure of B² including 1 when B is odd.

(d) Let $B^2 \div D$ give an odd number when B is odd.

(e) Let $B^2 \div D$ give an even number when B is even.

$$\text{Solve } \frac{B^2}{D} = H + P \text{ when } H - P = D.$$

Let B = any number exceeding 2.

Let D = 1, 2, 3, 4, 5, 6, 7, 8, etc., etc., as far as required, not exceeding B - 1. (Euc. I. 20.)

In the example given, B = 24.

D = 2, 4, 6, 8, 12, 16, 18, to give whole numbers, whence B, P and H = (24, 143, 145); (24, 70, 74); (24, 45, 51); (24, 32, 40); (24, 18, 30); (24, 10, 26); and (24, 7, 25), seven right-angled triangles in whole numbers with 24 as base.

CORRESPONDENCE.

MR W. H. G., Whitby, says he would be glad, as would also a number of his friends, to see in THE JOURNAL a lucid explanation of the mode of solving problems relating to annuities. We refer him to the issue of May, 1892, where he will find two columns on the subject of Bonds, Debentures, Sinking Funds, etc.. All the larger works on Algebra treat this subject pretty freely. To make such practical use of it one needs to understand geometrical progression and logarithms. It is almost wholly an algebraical topic, and only very simple examples can be solved by ordinary arithmetic. We shall make a note of the suggestion. See solutions in this number by Mr. Packham.

A. S., Paris, asks: "If one side of a square field be level and the other have a hill on it, will it take more posts to put a fence along one side than the other?" If the sides are of equal length and the posts are equally distant, there can be but one answer, No. If one side is longer than the other the field is not square. The same writer also inquires: "Why is it that in the Public School Arithmetic only one-half of the area of doors and windows is deducted from the area of walls to be plastered, etc.?" The rule is purely a matter of convention and agreement, entirely arbitrary, and variable from time to time. We have never had the good fortune to employ a plasterer who deducted anything for these openings. The workmen always declared that the time lost in finishing round doors and windows was worth more than the labor and material that would be necessary to plaster the holes if they were solid wall. Ask some builder what rule he applies.

Miss M. S., Orchard, says: "I receive a great deal of assistance from THE JOURNAL, and wish it every success." She proves the truth of the last statement by sending half-a-dozen solutions of questions that appeared in the November and December issues. They came a few days too late for acknowledgment at the proper time, but they deserve our thanks all the same.

Book Notices, etc.

(Continued from page 309).

compete with such an edition of Virgil as Mr. Sidgwick's, but is equally valuable in its way.

Mention should be made, also, of the bibliography and the twelve fine reproductions of photographs of classical subjects. I. 23, e.g., is illustrated by Michael Angelo's "Fates."

Thucydides. Bk. VIII. By T. G. Tucker, Litt. D. (Camb.) Macmillan's Classical Series.

It is sufficient to notice merely this addition to the "Classical Series." This series, as a whole, is not approached by any other series of school and college authors, and Prof. Tucker's addition maintains the standard.

Primary French Translation Book. By W. S. Lyon, M.A., and G. de H. Larpent, M.A. Pp. 215; 65c. Boston: D. C. Heath & Co.

This little volume is intended to teach French at once from connected French prose. The pupil is introduced first to very easy passages in which difficult words and constructions are avoided. He

then passes to a very interesting collection of a more difficult character, for which, as for the first part, he gets ample help in the "Preparations." Following the French part are exercises in English for re-translation, based upon the French exercises. Notes and an ample vocabulary complete the volume, which is an excellent illustration of the principles of the best teaching of elementary French.

L'Arrabiata. By P. Heyse, with annotations and vocabulary by Dr. W. Bernhardt. Pp. 76, 25c. Boston: D. C. Heath & Co., 1893.

The little love story of the Arriabiata and Antonino, in its setting of Naples, Capri and Torrento, is a charming bit of Italian passion. Dr. Bernhardt's notes on the idiomatic difficulties of the text make the school use of the little tale easy and profitable.

Le Duc de Beaufort. By Alexandre Dumas, edited with notes by D. B. Kitchen, M.A. Pp. 95, 30c. Boston: D. C. Heath & Co.

The story of the escape of the Duc de Beaufort from the château of Vicennes forms one of the most spirited episodes of Dumas' *Vingt Ans Après*, and has a unity about it that makes possible its separate publication. The episode, involving, as it does, the many ingenious devices of the Duc to show his hatred of Mazarin and to while away the merry hours of his captivity, and the skilful and successful execution of the plot, is among the best from Dumas' exciting pen. Mr. Kitchen's notes are on the whole satisfactory, though not always so. For the study of French it is surely waste of space and even misleading to annotate *que de vivre* as "que is a phonetic pronoun, required by the French idiom, and must be omitted in translation" (p. 75); or *ventre-saint-gris*, "do not translate this old-fashioned oath." These are surely old-fashioned annotations.

Selections from the Spectator. With Introduction and Notes by K. Deighton. Pp. xix., 220. 2s. 6d. London: Macmillan & Co.

The selections before us embrace thirty-eight papers, of which all but one are Addison's. The choice made is in every way admirable, and covers the field of that writer's best activity. The gentle satirists of social foibles is seen in the essays on "Patches," "Head-dresses," "The Fan," "The Dissection of a Beau's Head and a Coquette's Heart;" the tender moralist in "Westminster Abbey" and "The Vision of Mirza;" the creator of characters in "Will Wimble" and the various de Coverley essays. Mr. Deighton's introduction is a concise and just account of Addison's life and work; but the quality of his notes, though generally good, is not always equal. Etymological notes of thirteen lines on words such as "peruse" (1.7), could be spared by a reference to Skeat, and the space used to explain real difficulties of the text; e.g., the historic nature of the visit of the Indian kings and the pronunciation and meaning of their names. The text has been modernized as regards spelling. For this there is of course good ground, but modernization that extends to language, e.g., "delicacies" for "delicates" (37, 20), is strongly to be censured. Would Mr. Deighton modernize Marlowe's line:

"And search all corners of the new-found world
For pleasant fruits and princely *delicates*?"

Twelfth Night. Pp. 99, 20c. New York: American Book Co.

This edition is specially adapted for school use by careful expurgation and ample foot-notes. It is well printed and attractively bound in boards. For supplemental reading courses, nothing could be better.

The Merchant of Venice (Riverside Series, No. 55.) Annotated by Samuel Thurber. Pp. 111, 15c. Boston: Houghton, Mifflin & Co.

Mr. Thurber believes in setting pupils searching for the materials of which notes are made rather than in having them commit notes to memory. His annotations to the play before us are therefore more frequently suggestive than explanatory, though where information is difficult of access, he

does not withhold it. The peculiar feature in the notes is the many questions put to the pupil, forcing him to examine other Shakespeare plays to answer them, which will result in some familiarity with the works of the great dramatist. The edition is expurgated for school use, and with Mr. Thurber's sensible and suggestive notes should meet with favor.

La Cigale. By Legouvé and Labiche, annotated by A. N. Van Daell. Pp. 37. Boston: Ginn & Co.

The *Cigale* has no permanent literary value, but as a bright, sparkling example of the lightest kind of French comedy which passes away with the day, it is worth perusal. The dialogue is of the best French of to-day, so that the teacher will find it admirable for class reading. The notes of Professor Van Daell solve any difficulties not provided for by the ordinary dictionary.

Teachers' Miscellany.

HOW NEW YORK IS OVERCROWDED.

A RECENT census report shows that there are 81,000 houses in New York occupied by a number of families so great as to imply that there are nearly four families (3.82) for every house in the metropolis. When it is recalled that there are thousands of beautiful homes in New York occupied each by one family only, that miles of avenues and streets are lined with houses each individually owned and occupied by one family group, it will be realized to what extent in other parts of the city crowding occurs, when to accommodate an average of nearly four families to each house the remaining houses only are available. Comparing the condition of New York with Philadelphia the difference is most marked. In Philadelphia the average number of families to each house is one family and one-tenth, as against three families and over three-quarters in New York for each house. In New York the average for each house is 19 people, while in Philadelphia the average is not 6 people per house. The death rate tells the rest. In New York it is 28 in every thousand; in Philadelphia 22 per thousand. While New York has 19 people to each house, London has only seven, with a death rate three per cent. lower than New York. The extent of the crowding in New York is made painfully apparent by the statement of the national census, which shows that out of a population of 1,600,000, no less a number than 1,200,000 live in apartments, flats and tenements. Still further is this confirmed by the sanitary census made by the police in September last, in which it was found that there were herded in what the Board of Health designates as the "Tenement District" no less than 276,000 families! This number, exceeding a quarter of a million families, averaging five persons in each, is so great as to excite surprise that such a condition can exist in the chief city of the new world, where conditions of civilization, as illustrated by the character and number of homes, ought to have their most perfect exemplification. But the facts as presented in official reports, in the death rate, and in the personal observations of men and women who take a deep interest in the condition of human kind in the metropolis, show a condition of density full of danger, in which the indications towards improvements are few and far between.—*North American Review.*

THE POPULATION OF THE EARTH.

OVER half of the people of the world live in Asia, and nearly one-fourth of them in China, which slightly exceeds the whole of Europe in population. India contains a little over one-fifth, and Africa about one-ninth of the world's people. Less than one-fourth belong to what are ordinarily known as civilized nations, and of these nearly one-third, or about one-thirteenth of the total population of the world, belong to the English-speaking peoples.

The density of the population of different parts of the world varies greatly in different countries—being greatest in Belgium where it is about 535 to the square mile.—*J. S. Billings, M. D., in The Chau-tanquan for February.*

School-Room Methods.

"INVERTING THE DIVISOR."

STRANGE as the declaration may sound, my experience shows me that the great majority of pupils, not only of the higher grammar grades but even of the high schools, are unable to explain intelligently the processes of multiplying and dividing fractions.

Many have a confused notion of the first, but few indeed can grasp the latter. Is this a reflection on the teachers? I think so.

I remember once asking this question at an examination of applicants for teachers' certificates: "In division of fractions, why not divide each term of the dividend by the corresponding term of the divisor?"

Although among the applicants were experienced teachers, graduates of high and normal schools, the universal answer was that it would not give the correct quotient! One bright young normal graduate summarily dismissed the question as absurd!

The fact is, the principle is so plain and elementary to mathematicians that they hardly allude to it in their arithmetics, and consequently the average teacher never thinks of it. Indeed the ordinary manner of teaching arithmetic is a mere memorizing of processes—a cramming of rules.

The wording of the ordinary rule for division of fractions runs about like this: "Invert the divisor, and proceed as in multiplication of fractions;" and this the teacher conscientiously drills into his pupils, and this they blindly follow, serenely unquestioning as to the why and wherefore.

Now, let the teacher take, for example, the following question: Required, the quotient of $\frac{15}{8} \div \frac{5}{32}$. Dividing each term of the dividend by the corresponding term of the divisor, the correct quotient $\frac{3}{2}$, is immediately found, and the reasoning is plainly apparent viz: dividing 15 by 5 brings a quotient 8 times too small; therefore increase the size of the denominator 8 times by dividing 32 by 8.

Now, if in every case each term of the dividend were an exact multiple of the corresponding term of the divisor, there would never arise any occasion for inverting the divisor, as such inversion would complicate rather than simplify the process; but even when the terms are not thus exactly divisible the process can be indicated; thus, $\frac{3}{4} \div \frac{2}{3} = \frac{3}{4} \times \frac{3}{2} = \frac{9}{8}$

$1\frac{1}{8}$, and by so doing we guard against propagating that unknowable mystery of "inverting the divisor."—Lloyd Wyman, in *Ohio Educational Monthly*.

PRACTICAL MENSURATION.

OUR schools long ago adopted that most commendable study, mental arithmetic. Commendable so far as it is practical; but in our desire to obtain marvellous rapidity of thought and ready answers, has not the *practical* been compelled to occupy a secondary place of importance?

Not long ago, in a so-called progressive public school, I was much gratified to hear the quick, ready answers of forty pupils, as an intricate exercise in mental arithmetic was conducted by the teacher. The subject was "Mensuration;" yet I did not hear a question that would have led me to think measurements were discussed. Question followed question, all eliciting correct answers.

Such questions as "two-fifths of 15 is how many eights of 40?" drew forth such ready answers that I gazed in amazed admiration, for much older and more experienced heads than theirs might justly be perplexed; but, as I left, with all my admiration I felt disappointed. Not one substantial, practical problem had been given those bright pupils. Is this lack of practical examples the reason so many boys and girls from the grammar schools are unable to apply to every-day life the principles learned in arithmetic?

It will not disfigure any school-room if there are a dozen yard-sticks in it. Let the pupils use them, measure with them and know what and how much they mean. Give them practical examples. Let them find the number of yards of carpet required for the school-room, halls and every room in the building, if necessary.

Carpet these floors with tapestry and ingrain carpeting. Cover them with oil-cloth and with linoleum; straw matting and Scotch axminsters. Require five-eighths borders and carpets without borders. Put down stair carpets with stair pads

and linings, but let those boys and girls know how to estimate upon so practical a subject.

Make a figure three feet long and two feet wide and ask them to carpet the floor with a Wilton velvet carpet, five eights border.

These practical examples may be reached by successive questions of different degree of difficulty. Let the first lesson be devoted to measuring, letting the pupils draw a line an inch long on their slates and afterwards test it with rules. Ask how many had their lines exactly an inch. Lines of various lengths may then be drawn until such accuracy and training will be observed in lines drawn one foot in length. Lines one foot or one yard may be drawn on the blackboard and divided into inches. Then let the pupils estimate the length, width and height of various objects in the school-room. From this the next step may be to draw the square inch, square foot and square yard.

The pupils will then estimate the square inches on the surface of books, slates, desks, tables, window-panes and platform.

Such mental problems as:

How many square inches in a pane of glass 24 by 18?

How many square feet in the mat by the door?

How many square yards in the floor of this room? will readily be answered by pupils who have tested all the measurements and understand them.

Find the cost of concreting the walk in front of the school-house, plastering the rooms, erecting a fence about the grounds, paving the street upon which the school-house is located. Measure the school-house lot and find its value; ascertain what the city or town paid for the lot when purchased.

Measure the lot in feet, yards, rods, and compute the fractional part of an acre. Estimate the square rods in the school-yard, the number of acres in an adjoining field or park, the height of buildings, etc.

The pupils will gain a practical knowledge of measuring and estimating which would have been incredible at the beginning of the subject. Let the practical be foremost.—*Teachers' Institute*.

English.

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

THE DISCOVERIES OF JACQUES CARTIER.

FOR THIRD CLASS.

FIRST PRIZE PAPER.

MISS HATTIE ANDREWS, GODERICH, ONT.

TOPIC.—A clear and concise description of the travels of Jacques Cartier in Canada, his discoveries and explorations.

INTRODUCTION.—Have ready a map of Canada, a map of the world, and pictures of Jacques Cartier, Quebec, Montreal, and an Indian village.

Commence by saying that in 1534 Francis I. of France fitted out an expedition to establish a colony in the New World. Command of the expedition was given to a great navigator, Jacques Cartier, who sailed from St. Malo (find the situation of St. Malo on the map of the world), and crossed the ocean, arriving at Newfoundland in about three weeks. He could not land, as the bays and landing places were frozen over, it being early in May. He then explored the coast and the Strait of Belle Isle, never noticing that Newfoundland is an island.

Help pupils to form a conception of the civilized and polished Frenchmen coasting round Newfoundland in the spring of the year, while yet the harbors are frozen over and the waters of the Gulf of St. Lawrence cold and benumbing.

Divide the lesson into two parts:

I. 1534. The discoveries of Jacques Cartier on first voyage.

II. 1535. The discoveries of Jacques Cartier on second voyage.

DEVELOPMENT.—Tell the pupils that Jacques Cartier made his first voyage in 1534. Write this division on the black-board and write down each heading as the lesson is taught.

By means of the map of Canada point out to the pupils the course the vessel took, leaving Newfoundland, exploring the Gulf of St. Lawrence and sailing south. Finally he, Jacques Cartier, dis-

covered a small bay which he named "Baie de Chaleur," as he and his men felt the heat so greatly. Write "Bay of Chaleur" under the first division of the lesson, and underneath each fresh discovery as it is taught.

Question pupils as to the names now given or applied to the places discovered by Jacques Cartier.

Then cross over to the coast. Show where Cartier landed on Gaspé Peninsula, and explain his manner of taking possession.

Converse with pupils about the friendly and unsuspecting natives, and then tell them that Cartier seized two of them and took them with him to France when he sailed on July 25th.

BLACK-BOARD SUMMARY.—1534. Jacques Cartier's discoveries on first voyage.

Newfoundland—known to English.

Bay of Chaleur.

Gaspé Peninsula.

Review, and have the pupils sketch parts of the voyage and have one pupil sketch the whole voyage, using the map and pointer.

1535.—Cartier returned to Canada. He explored and named the Gulf of St. Lawrence and the River St. Lawrence. Tell the pupils the name was given as Jacques Cartier explored the gulf on Saint Lawrence's Day.

Island of Anticosti.—Find this island on the map and tell something about Anticosti at present time—that it is rocky, barren and harborless, and that two men reside there in order to provide for shipwrecked persons.

Isle of Coudres (filberts), so named because a great many filberts were found on the island.

Isle of Orleans—then called "Bacchus," because of the abundance of vines and fruits found on it.

While on this island Jacques Cartier was visited by Donacona, Chief of Stadacona, now Quebec. Show the pupils a picture of an Indian village, and of Quebec as the city stands at present.

The interview was very satisfactory to both parties. It was made easier by the presence of the two Indians Cartier had taken to France. These acted as interpreters and gave Donacona a favorable account of the French people.

Show how much Cartier was helped in his discoveries by the friendliness of the Indians. The Indians were strong in numbers, more than five-hundred coming with Donacona to welcome Cartier to Quebec. Yet Cartier made them feel that he, too, was very powerful, for, when some of them objected to his going farther up the St. Lawrence River to extend his discoveries, he caused twelve cannon, loaded with balls, to be fired into the forest. This filled the simple-minded Indians with wonder and awe, and made them look upon Cartier with a degree of fear.

Much against the wishes of the Indians of Stadacona, Cartier, on September 19th, sailed up the St. Lawrence. In every district he was received kindly, and on October 12th he arrived at the large Indian village of Hochelaga.

Here one thousand Indians assembled to meet him and to give him welcome. Cartier, in return, gave them beads, knives and other presents. These trifles were greatly prized by the natives.

Show the pupils a picture of Hochelaga—if one can be obtained; and before giving a description of Hochelaga as Cartier found it, review the summary of the second voyage—which summary has been placed on the black-board, thus:

1535.—Discoveries of Jacques Cartier on second voyage:

Gulf of St. Lawrence.

River St. Lawrence.

Island of Anticosti.

Isle of Coudres (filberts).

Isle of Orleans (Bacchus).

Village of Stadacona (Quebec).

Village of Hochelaga (Montreal).

Review and question.

Give a description of the village of Hochelaga as Cartier found it.

Thus: It consisted of fifty large huts covered with birch-bark. Each hut had several rooms, and the fire burned in an open court in the centre. The village was fortified with three rows of palisades, and all around the inside a gallery extended, on which were stones and sticks to use as weapons of defence in case of attack by any other tribe.

Question the pupils on the different tribes living in this part of America, also on their manners and customs. Then tell them that these Indians belonged to the Huron tribe and that they were more civilized than the other Indians. They cul-

tivated the land, for when Cartier arrived at the village he found it surrounded by fields of Indian corn.

From the position of Hochelaga the pupils will see that in its place now stands the city of Montreal. Show the pupils a picture of Montreal. Tell them the origin of the name, thus:

Cartier named the mountain, behind the village, "Mount Royal," and afterwards the French in building their town at the foot of the mountain named it "Montreal" (*Mont Royal*.)

Summarize and question as before.

Require—I. A summary of the first voyage.

Require—II. A summary of the second voyage.

Have the pupils trace the routes taken by Cartier. [Use map of Canada].

Have the pupils connect a story with each place mentioned, for example: 1. On the Isle of Coudres the sailors found large quantities of filberts, etc.

Example 2. In one of the districts at which Cartier stopped on his way up to Hochelaga, the chief presented him with his little girl.

Quicken the interest of the pupils by relating other incidents connected with the voyage.

PRACTICAL WORK.—Require a written account of the discoveries of Cartier to be brought in before next history lesson, or, if possible, immediately after the lesson has been taught.

HISTORY.

SECOND PRIZE PAPER.

BY JAMES GRANT, GUELPH, ONT.

THIS lesson should be preceded by a lesson on the geography of Eastern Canada, especially the Province of Quebec and the River and Gulf of St. Lawrence, in a general way. A map of Canada and one of the western portion of Europe should be hung up before the class. If such a map cannot be had, a map of Canada and another of Europe should be hung up in proper juxtaposition.

Teacher.—What language do we speak? *First Pupil*.—The English language.

Teacher.—Why? *Third P.*—Because we were learned it. (Teacher.—Say taught.) Because we were taught it.

Teacher.—Why were you taught it? *Second P.*—Because it was easiest to learn.

Teacher.—That is not what people from other countries think? *Fourth P.*—Our mothers and fathers speak it.

Teacher.—That is better, but why do they speak it? *Fifth P.*—Their mothers and fathers spoke it.

Teacher.—That is correct, but you can tell me in a word without going back to grandfathers, great-grandfathers, and so on. *Second P.*—Because they came from England. *Third P.*—But my grandfather came from Scotland. *Fourth P.*—And mine from Ireland.

Teacher.—Yet in all these countries English of some sort is spoken (although not the English of your reading books) by most of the people. Do you remember in what part of Canada English is not spoken? *First P.*—In Quebec.

Teacher.—Very good. Point out on the map that Province, and the river that flows through it? What language is spoken there? *Fourth P.*—The French language.

Teacher.—Do you remember what these people are generally called? *Fifth P.*—French-Canadians.

Teacher.—Very good. Now, in what old country is French spoken? *Third P.*—In France.

Teacher.—Right. Can you point out that country on the map? (It is pointed out.) I am sure you all can tell me now why the French-Canadians speak French? *Fifth P.*—Because their forefathers came from France.

Teacher.—You are right, and we are to learn to-day why, how and when the first Frenchman came to Canada, as we learned about how Columbus discovered America in 1492, on Columbus Day. Point out Quebec, the Gulf of St. Lawrence and France again. (It is done.) What lies between France and Canada? *Sixth P.*—The Atlantic Ocean.

Teacher.—In what direction is Canada from France? *Seventh P.*—West.

Teacher.—Right. Canada is about 3,000 miles from France. From what country did Columbus sail when he discovered America? *Third P.*—From Spain. (Which is pointed out.)

Teacher.—You see that France being near Spain, the French soon heard of Columbus' discoveries, and you will easily understand that France became eager to explore and take possession of some part of the New World, as the Spaniards were doing;

and the English also, for they reached Newfoundland soon after Columbus' discovery. (Newfoundland is pointed out.)

[NOTE.—It would not be advisable at this stage to burden the memories of the pupils or distract their attention from the subject on hand by an account of previous French explorers on this continent.]

Teacher.—The Frenchman who discovered Canada was Jacques Cartier, in the year 1534. (This fact is written on the blackboard and the pupils are made to pronounce the name.)

St. Malo is pointed out as the starting place, and a pupil points out and traces the course of the voyage to Belle Isle.

Teacher.—Cartier's crew would pursue the voyage with more confidence and less terror than did the crews of Columbus. You will remember how the latter thought Columbus was taking them to destruction, and how they were on the point of rebelling against their captain again and again, but it makes a great difference when some one has gone before. In what direction did Jacques Cartier sail, and in what ocean? *Fourth P.*—He sailed westward in the Atlantic.

Teacher.—What land does he first see? *First P.*—Newfoundland.

Teacher.—Correct; but there are often times that Newfoundland cannot be seen although you are very near it? *Sixth P.*—There are often mists there and icebergs.

Teacher.—Yes, and this makes it dangerous sailing. What strait does he pass? *Second P.*—Belle Isle, and then he would be in the Gulf of St. Lawrence.

Teacher.—Very good, but neither was named yet. He saw little inviting there, so he pushed on, and came in sight of brighter islands—the Magdalenes (pointing out), where birds and berries cheered their spirits, after passing bleak Belle Isle. They then turned to the westward, into what bay? (Pointing.) *First P.*—Chaleur.

Teacher.—Yes; the name means heat, and was given to the bay on account of the excessive heat they experienced there. You will know by that what season of the year it was? *Sixth P.*—Summer.

Teacher.—And in what language Chaleur means heat? *Seventh P.*—French.

Teacher.—Cartier turned to the northward along the shore. What cape is this? (Pointing.) *Third P.*—Gaspé.

Teacher.—Very good. Cartier there landed and set up a cross and on it a shield, bearing the lilies, or fleur-de-lis—the emblem of France. (Here show to pupils a picture of the fleur-de-lis, if possible.) This indicated that he had taken possession of the country for France and for —? (Class hesitates.)

Teacher.—What did he erect? *Second P.*—A cross with a shield on it.

Teacher.—Which meant France? *Fourth P.*—The shield.

Teacher.—Where have you seen a cross? *Fifth P.*—On a big church in the city.

Teacher.—Can you tell me something of great importance connected with the cross? *Seventh P.*—Christ was crucified on the cross.

Teacher.—Very good. The cross is a mark of Christianity, so Cartier took possession for France and for Christianity. Do you think Cartier found any people here? *Third P.*—No; you said he was the first man who saw this part of America.

Teacher.—Well, I see a hand up. *Fourth P.*—Columbus found Indians; perhaps Cartier found some too.

Teacher.—Yes he did, and took two of them back with him to France when he returned, after he had sailed up the Gulf till he could see land on both sides. Would he not have interesting news to tell on his return? I will tell you about his second and most interesting voyage if you show me that you remember enough of this. Write out a short account of this first voyage.

The slates are in due time examined, the errors pointed out and corrected by pupils.

Before next lesson is begun the last is reviewed.

Teacher.—Next spring in what year? *First P.*—In 1535.

Teacher.—Yes; in 1535 Jacques Cartier set sail again from St. Malo with three vessels and 110 men to again cross the Atlantic? Point out Cartier's first course. (It is pointed out.) He again reached the Gulf and this time named it and the great river that flows into it. Whom might he have had with him who knew more of this river than he

himself did? *Fifth P.* The two Indians.

Teacher.—Very good. What large island would he pass? *Third P.*—Anticosti.

Teacher.—Yes, and soon he would see the rugged shores of the St. Lawrence. On, on they went, not yet knowing but what the river was an arm of the sea stretching away hundreds of miles inland. Soon another large island comes in view. There Cartier and his wondering crews found such abundance of wild grapes that they called the island Bacchus, from the name of the heathen god of wine. What is the island called now? *Third P.*—Orleans.

Teacher.—No sooner had they left the island to push on westward (for the Indians told him of villages of their own people farther on), that they saw a sight that made them all cry out. A huge and high rock jutted out from the north shore and seemed likely to stop their further progress. I am sure you all know what city stands there now? *Sixth P.*—Quebec City.

Teacher.—Yes, but there was no city then, yet smoke curled up from many huts, for the Indian village of Stadacona stood there. You will remember how the poor Indians looked upon Columbus. They would be no less astonished to see Cartier and his winged monsters. Cartier left his ships here, and with some of his men pushed upward, still upward until they came to a larger village of Indians, and saw fields of Indian corn growing. He landed, wondering at the strange beauty of nature which everywhere met his eyes, for it was now October. He climbed a neighboring mountain, and again erected the —? *Second P.*—Cross and fleur-de-lis

Teacher.—Yes, and got a glorious view from the spot. What think you would attract his attention most at that season? *First P.*—The woods.

Teacher.—Yes, he had never seen such a glorious sight, for the forests in Europe present no such sights. He thought of his royal master the King of France and called the mountain—Mount Royal. You know the name of the great city that now stands here? (Points out.) *First P.*—Montreal.

Teacher.—Cartier soon returned to —? *Third P.*—Stadacona, where his ships were.

Teacher.—Yes, but it was now so late in the season that he dared not venture back to France that year, so he wintered in the wilds of Canada. Next spring he returned to France to tell his eventful story, leaving twenty-six of his men in their graves behind him, as the crews were ill-provided with food and shelter to stand our cold Canadian winters.

Trace Cartier's route from Montreal to St. Malo, pointing out all the places that he had to pass by on his second voyage. I will end this lesson by reading a fine poem by a poet who made Canada his home, and did much to make her a country. Teacher reads D'Arcy McGee's "Jacques Cartier at Hochelaga."

Teacher.—This is the beginning of the story of our country, and since you know that Queen Victoria rules over all of Canada, we will see how the French lost their new country after struggling for years to make homes in it. After recess I want you to write the story of to-day's lesson.

SYNTAX BY EXPERIMENT.

LITTLE Jane had been repeatedly reproved for doing violence to the moods and tenses of the verb "to be." She would say "I be," instead of "I am," and for a time it seemed as if no one could prevent it.

Finally Aunt Kate made a rule not to answer an incorrect question, but wait until it was corrected. One day the two were together, Aunt Kate busy with embroidery, and little Jane over her dolls. Presently doll society became somewhat tedious, and the child's attention was attracted to the embroidery frame.

"Aunt Kate," said she, "please tell me what that is going to be?" But Aunt Kate was counting and did not answer. Fatal word, be! It was her old enemy, and to it alone could the child ascribe the silence that followed. "Aunt Kate," she persisted, with an honest attempt to correct her mistake, "Please tell me what this is going to am?" Aunt Kate sat silently counting, though her lip twitched with amusement.

Jane sighed, but made another effort. "Will you please tell me what that is going to are?" Aunt Kate counted on, perhaps by this time actuated by a wicked desire to know what would come next. The little girl gathered her energies for one last and great effort, and said: "Aunt Kate, what am that going to are?"—*Exchange*.

Primary Department.

TO BE MEMORIZED.

"A LITTLE spring had lost its way amid the grass and fern.
A passing stranger scooped a well where weary men might turn;
He walled it in, and hung with care, a ladle at the brink;
He thought not of the deed he did, but judged that toil might drink.
He passed again, and lo! the well, by summers never dried,
Had cooled a thousand parched tongues, and saved a life beside."

—Charles Mackay.

PRIMARY OBJECT LESSONS.

CONVERSATION ABOUT A BALL.

TEACHER (*showing the children a rubber ball, a ball of wood, a ball of yarn, marbles, etc.*)—"Which of these is larger—the rubber ball, or the marble?"

CHILDREN—"The rubber ball."

T.—"What is a ball good for?"

C.—"To play with."

T.—"What can a boy do with a ball?"

C.—"Throw it; knock it; bounce it."

T.—"Which had you rather have, this ball of wood, or the rubber ball?"

CONVERSATION ABOUT A STOVE.

TEACHER (*pointing to a stove in the room, says*)—"What is this?"

CHILDREN—"A stove."

T.—"What is it used for?"

C.—"To make a fire in."

T.—"Why do we make a fire in it?"

C.—"To keep us warm."

T.—"What do we put in the stove to make a fire?"

C.—

T.—"Will the stove burn up?"

C.—"No; it is iron."

T.—"Did you ever see a stove in any other place?"

C.—"Yes; at home."

T.—"What is the use of the stove at home?"

C.—"To cook with, and warm the room."

Conversations somewhat like the foregoing might be had upon the following and similar subjects:

Bread.	Apple.	Snow.
Cake.	Orange.	Ice.
Pie.	Peach.	Rain.
Cheese.	Pear.	Slate.
Butter.	Cherry.	Chair.
Milk.	Plum.	Table.
Sugar.	Grape.	Bell.
Fork.	Spoon.	Shoe.
Horse.	Cat.	Cow.
Dog.	Sheep.	Cart.

The children should also be taught to tell their names; the name of the street in which they live; the names of their parents and of their brothers and sisters; the days of the week; to know their right and left hands; in what city or town they live.

It will be observed that these simple conversational exercises might be extended almost without a limit; also that the interests of the pupils can be awakened and kept alive by such variations as will readily suggest themselves to the ingenious

teacher. Sometimes it might add interest to these exercises to tell the children beforehand what object will be talked about for the next lesson; but this should be done only where it affords the class additional pleasure, and with subjects for which the children show great interest.—*Calkins.*

EAR TRAINING.

RHODA LEW.

IN the close of our last lesson ear exercises were mentioned as a part of the work in music. Let us further consider the subject to-day.

It is not advisable to try to include every branch of the musical training in the *daily* lesson, but voice exercises, modulator drill, and sight-singing should never be omitted. Ear exercises, *time*, and practice of songs should be taken on successive days.

Ear cultivation is an important factor in musical education. We can have little or no doubt as to a child's ability to read music correctly when he has acquired the power to recognize, key-note being given, a tone or succession of tones, as soon as heard. And this power is one that can easily be acquired by a systematic use of exercises for definite ear-training. The perception of tone-relation becomes more acute with every lesson, and the effect upon the sight singing is very soon felt.

We must begin very simply. Place the numbers 1, 2, 3, 4 on the black-board. Sing **s, m, s, d**, or any other succession of tones, to **laa**, pointing to the numerals while singing, and ask the children to watch and tell to which number **doh** was sung. Take up **me** and **soh** in the same way. When mistakes are made do not correct by telling or singing names yourself, but question as to the mental effect of the tone. Ask if it were firm enough for **doh**, quiet enough for **me**, etc.

In place of number four sketch a bird. Sing a short phrase again to **laa**, but this time let the children tell you which tone was sung by the bird.

Take four children to the front of the class. Let them represent the notes. Sing to **laa**, as before, touching the head lightly as you sing. The class may either watch for one particular tone, or tell you which note Robert was, which Helen, etc.

Draw four houses on the black-board, giving each a number. Suppose a note to live in each little house. Find the number of **soh's** house. Find who lives in number sixteen. Four tents, a boy standing at every entrance, singing. Four or five bird houses. Four toy horns. These are some plans commonly used and with success.

One other method of giving the exercise is to point, while singing the phrase, to different objects in the room, such as the cupboard, table-drawer, cloak-room, clock or water pitcher. Let the children understand that you are going to hide **doh, me** or **soh**, as the case may be, in one of the places to which you pointed. There will be no lack of interest shown in discovering the hiding place.

Answers to exercises may be taken in a variety of ways. Verbal answers must suffice at first, but as soon as possible let them

be either written on slates or indicated by means of the manual signs. An excellent plan which has been adopted by some teachers is to provide each child with a set of cards (the older pupils in the school will make them), each of which bears the name of a single tone. The cards are arranged before the children, and when an answer is called for they select and hold up the card bearing the right name. Answers must always be given with great promptitude so as to insure individual work.

Another point before leaving the subject of music to-day. Begin as soon as possible the *writing* of music in tonic-sol-fa notation. Dictate exercises to be written on the slate or work-book, and occasionally give exercises to be copied from the board. The children then sing from their slates instead of the board. This is a great aid in sight-singing and will pave the way for work in the "music-readers" which are introduced in the senior classes.

In dealing with this subject of primary music I have not touched on many of the technicalities of the tonic-sol-fa system. That it is based on true philosophic principles of teaching is the verdict of all who have really, and with unprejudiced minds, studied the subject. But to those who are not familiar with the system, so rapidly establishing itself in our country, I would recommend the study of the "Teacher's Hand-Book," by A. T. Cringan, and issued by the Canada Publishing Co., Toronto. This work gives us, in addition to a clear and concise outline of the whole subject, examples of lessons in every branch, and innumerable hints that to every teacher, primary and advanced, must be exceedingly suggestive and helpful.

BUSY WORK IN COLOR.

FOR VERY LITTLE PEOPLE.

WRITE the names of the colors.

Write the names of some red flowers.

Write the names of some blue flowers.

Write the names of some white flowers.

Write the name and color of your favorite flower.

What colors look well together?—*Sel.*

LANGUAGE LESSON.

FILL blanks with *their* or *there*.

1. The boys have lost — books.

2. — are a great many mosquitoes to be found around ponds.

3. It was — that I saw your cap.

4. The little girls were making — aprons.

5. — home is many, many miles away.

6. It was — we saw the beautiful parrot.

7. The deer are — most beautiful pets.
—*Popular Educator.*

O ARISTOTLE, if you had had the advantage of being "the freshest modern" instead of the greatest ancient, would you not have mingled your praise of metaphorical speech as a sign of high intelligence, with a lamentation that intelligence, so rarely shows itself in speech without metaphor—that we can so seldom declare what a thing is except by saying it is something else.—*George Eliot.*

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paid, and \$190,000 has been carried to the reserve fund, which now amounts to \$1,090,000. The amount estimated as necessary to run off or re-insure existing risks is \$738,772.97; and, after deducting this from the total surplus funds of the Company, a net surplus remains over capital and all liabilities of \$356,281.08.

The Directors regret to have to record the loss during the year of one of their number in the death of Mr. A. T. Fulton, who for the past nine years had been a valued member of the Board. The vacancy thus caused was filled by the election of Mr. G. R. R. Cockburn, M.P.

In closing this report the Directors desire to express their appreciation of the efficient services of the Officers and Agents of the Company during the past year.

STATEMENT OF BUSINESS FOR THE YEAR ENDING DECEMBER 31, 1892.

REVENUE ACCOUNT.	
Fire premiums	\$1,865,351 75
Marine premiums	691,709 26
	\$2,557,061 01
Less re-assurance	290,777 42
	\$2,266,283 59
Interest account	47,629 67
	\$2,313,913 26
Fire losses, including an appropriation for all losses reported to December 31, 1892	\$1,007,593 47
Marine losses, including an appropriation for all losses reported to December 31, 1892	377,623 16
General expenses, agents' commission, and all other charges	707,239 85
Balance to profit and loss	221,456 78
	\$2,313,913 26

PROFIT AND LOSS ACCOUNT.	
Dividend No. 62	\$26,701 33
Dividend No. 63	29,847 86
Carried to reserve fund	190,000 90
Balance	5,054 05
	\$251,603 24
Balance from last year	\$4,181 36
Premium on new stock	25,965 10
Profit for the year	221,456 78
	\$251,603 24

LIABILITIES.	
Capital stock, paid up	\$600,000 00
Losses under adjustment	213,558 57
Dividend payable January 9, 1893	29,847 86
Reserve fund	\$1,090,000 00
Balance profit and loss	5,054 05
	1,095,054 05
	\$1,938,460 48

ASSETS.	
United States and State bonds	\$442,360 00
Dominion of Canada stock	262,660 75
Bank, Loan Company, and other stocks	204,277 60
Company's building	65,000 00
Debentures	225,719 95
Cash on hand and on deposit	239,139 05
Bills receivable	77,110 41
Mortgages	15,434 88
Re-assurances	38,061 22
Interest due and accrued	8,720 50
Agents' balances and other accounts	359,976 12
	\$1,938,460 48

A. M. SMITH,
President.
J. J. KENNY,
Managing Director.

Western Assurance Offices,
Toronto, Feb. 11, 1893.

AUDITORS' REPORT.
To the President and Directors of the Western Assurance Company:

GENTLEMEN,—We hereby certify that we have audited the books of the Company for the year ending December 31, 1892, and have examined the vouchers and securities in connection therewith, and find the same carefully kept, correct, and property set forth in the above statement.

R. R. CATHRON,
JOHN M. MARTIN, F.C.A.,
Auditors.

Toronto, February 11, 1893.

In moving the adoption of the report, the President said:

When addressing the last annual meeting of Shareholders, I referred to the withdrawal from business of a number of Fire Insurance Companies in Canada and the United States during the preceding year; and I predicted that as a consequence of this, as well as from advances in rates that were being effected in many quarters, companies remaining in the field and offering to the public undoubted security in the form of large capital and assets might, during the year 1892, look for a considerably increased volume of business.

These predictions, as the accounts now presented to you show, have been fulfilled in the case of the "Western." A net premium in-

come of upwards of two and a quarter million dollars is something of which we may well feel proud, demonstrating, as it does, not only the popularity of the Company, but the energy and zeal of its representatives throughout the extensive field of its operations. But in Fire Insurance, as in most other matters, quantity must be regarded as a secondary consideration to quality, and the handsome balance which is shown on the credit side of the revenue account at the close of a year which has been, generally speaking, anything but a favourable one to Fire Insurance Companies, demonstrates, better than any word of mine could do, that sound judgment and care are exercised by the managers, officers, and agents of the Company in the selection of risks and the supervision of its business; in fact the report, which you have just heard read, with its accompanying accounts, presents so clear and at the same time what I think must be considered so satisfactory an exhibit of the past year's transactions, that I need do no more, in moving its adoption, than commend the figures to your careful consideration.

Before resuming my seat, however, I may perhaps be allowed, in view of this being the twenty-seventh anniversary of my election as a director, and the tenth annual meeting at which I have had the honour of filing the President's chair, to refer briefly to the past history of the Company. In looking over the annual statements which we have submitted to the Shareholders for the twenty years from 1873 to 1892 inclusive, I find that our total income during that period has been \$25,845,756, and our expenditure for losses and expenses \$23,937,470. Out of the profit balance that remained we have paid in dividends \$1,015,000, and carried nearly \$900,000 to our reserve fund.

It must be remembered, however, that some individual years of those twenty, which as a whole show such favorable results, were unprofitable ones, and this must impress upon us the wisdom, or rather the necessity, in such a business as ours, of increasing our reserve fund in favorable years, so that regular dividends may be maintained in less fortunate seasons. I might also point out that during the twenty years ending December 31st, last, to which I have referred, our Shareholders have received an average return of twelve per cent. per annum upon their paid-up capital. This capital in 1873 was \$200,000, and since that date we have, from time to time, as the increase in our business seemed to call for it, made additions to it, until we have our present position with \$600,000 paid up, while our stock stands on the share list at a premium of seventy per cent. So much for the past; and now a word as to the future. As you have been advised by circular, the Directors think that the time has come when, in regard to its paid-up capital, as well as in other respects, the "Western" should take its stand among the "millionaire" companies of the country. The business has now attained such proportions that we think—basing our judgment upon the past experience of the Company—that we may safely assume the responsibility of earning and continuing to pay satisfactory dividends to Shareholders upon the increased capital. If the resolutions are adopted which are to be submitted to you to-day, to complete the issue of the capital which is provided for by the Company's charter, namely, \$2,000,000—fifty per cent. of which will be paid up, thus giving us a cash capital of \$1,000,000—this action, we feel confident, will materially aid us and those who are to come after us, in maintaining the position of the "Western" in the front rank of the companies doing business on this continent.

The President then referred to the relations which have been recently established between the "Western" and the British America Assurance Company, and explained at some length the advantages which might be looked for from these two Toronto companies working in harmony, particularly in the management and supervision of their business at the more distant Agencies.

Mr. George A. Cox, Vice-President, in seconding the adoption of the report, said:

I am glad to have the opportunity, Mr. President, to second the adoption of a report that must, I am sure, be eminently satisfactory to the Shareholders. I also desire to extend to yourself and to the Shareholders my congratulations upon the magnificent record that you

have given us, showing the result of the Company's business for the last twenty years. An average annual dividend of over twelve per cent. for twenty consecutive years, notwithstanding the vicissitudes and serious conflagrations that have overtaken the Company during that long period, is certainly very reassuring; but to return to the statement now under consideration, it is the more gratifying to be able to meet our Shareholders with such an exhibit as has been made here to-day, when it is evident from the reports published thus far that many Fire Insurance Companies in Canada and the United States, as well as in other parts of the world, have found the year of 1892 an unprofitable one.

In comparing the figures of this report with those presented a year ago, it is encouraging to find that the ratio of losses to premiums is considerably lower in 1892 than it was in 1891, and it is perhaps still more important to observe that while, as a result of the largely increased business, the aggregate amount paid for general expenses is in excess of similar charges in the preceding year, the actual percentage of expenses to premium income is 1.37 per cent. below that of 1891. This saving in itself is equal to a profit of some \$31,000.

In regard to the proposed increase in the capital of the Company, I heartily concur in all that the President has said as to the advisability of taking the final step to bring our capital up to the authorized amount. It may be said that our present assets are quite large enough to command public confidence, but there are few, if any, companies to-day doing the amount of business which the "Western" transacts on a smaller cash capital than \$1,000,000. In reference to the price at which it is proposed to allot the new stock to Shareholders, I would point out that taking into account the present low rate of interest obtainable on investments, and bearing in mind that the Directors desire to maintain the present rate of dividend, 140 must be considered a favorable price to Shareholders. This new issue of stock, besides increasing the cash capital by \$400,000, will, it must be borne in mind, add a further \$160,000 to the surplus fund of the Company.

The Vice-President also fully endorsed the views expressed by the President as to the advantages likely to accrue from the connections which have been established between this Company and the British America Assurance Company.

The report having been unanimously adopted, it was moved by Mr. W. B. McMurrich, seconded by Mr. Robert Thompson, and carried, that a cordial vote of thanks be passed to the President and Board of Directors for their services and attention to the interests of the Company during the past year.

Messrs. J. E. Robertson and J. K. Niven having been appointed scrutineers, the election of Directors for the ensuing year was proceeded with, which resulted in the unanimous re-election of the old Board, viz.:—Messrs. A. M. Smith, George A. Cox, Hon. S. C. Wood, Robert Beaty, G. R. R. Cockburn, M.P., George McMurrich, H. N. Baird, W. R. Brock, and J. J. Kenny.

At the close of the annual meeting the question of increasing the capital stock of the Company to \$2,000,000 was submitted (as required by the Company's charter) to a special meeting of the Shareholders and unanimously approved; the new stock (\$800,000) to be issued at a premium of \$8 per share (forty per cent. on the amount called up) and allotted to Shareholders in the proportion of two shares to every three held by them on March 15th next, and payable in five equal instalments of \$5.60 per share each on the 1st days of April, June, August, October and December, 1893, respectively.

At a meeting of the Board of Directors held subsequently Mr. A. M. Smith was re-elected President, and Mr. George A. Cox, Vice-President for the ensuing year.

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From **E. TROUGHT, Esq., Teacher, Member County Board of Examiners, Inglewood.**

I have examined with some care **Practical Problems in Arithmetic for First, Second and Third Classes**, by Mr. White, Edmonton. Without the slightest hesitation I say that they are the best I have ever seen—the best in selection, the best in grading, and above all, the best for developing the reasoning powers of the child, and for exercising his ingenuity. A special feature of the grading is that principles which have been introduced are being constantly made use of in the succeeding problems which are in their turn introducing new principles, so that the whole work may be said to be one unconscious review. It is a great boon to Teachers.

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