

THE EDUCATIONAL REVIEW.

FOR THE ATLANTIC PROVINCES OF CANADA.

Vol. XIV. No. 6.

ST. JOHN, N. B., NOVEMBER, 1900.

WHOLE NUMBER, 162.

...REVISED EDITION...

Manning's Classified Speller.

BY EDWARD MANNING, A. M.

Prescribed by the Board of Education for use in the New Brunswick Schools.

REMEMBER...

We carry in stock all the leading Writing Inks, Pens, Ink Bottles, Paper and Envelopes. Blank Books and Memorandum Books. Waste Paper Baskets for school use. Webster's International and Collegiate Dictionaries

NOTE...

Send your **EDUCATIONAL REVIEW** to us for Binding. We bind large numbers of this Journal each year.

Price in $\frac{1}{2}$ Leather, Cloth Sides, \$1.25

J. & A. McMILLAN,

98 Prince Wm. St. Booksellers and Stationers, Saint John, N. B.

DALHOUSIE COLLEGE, HALIFAX, N. S.

FACULTY OF LAW.

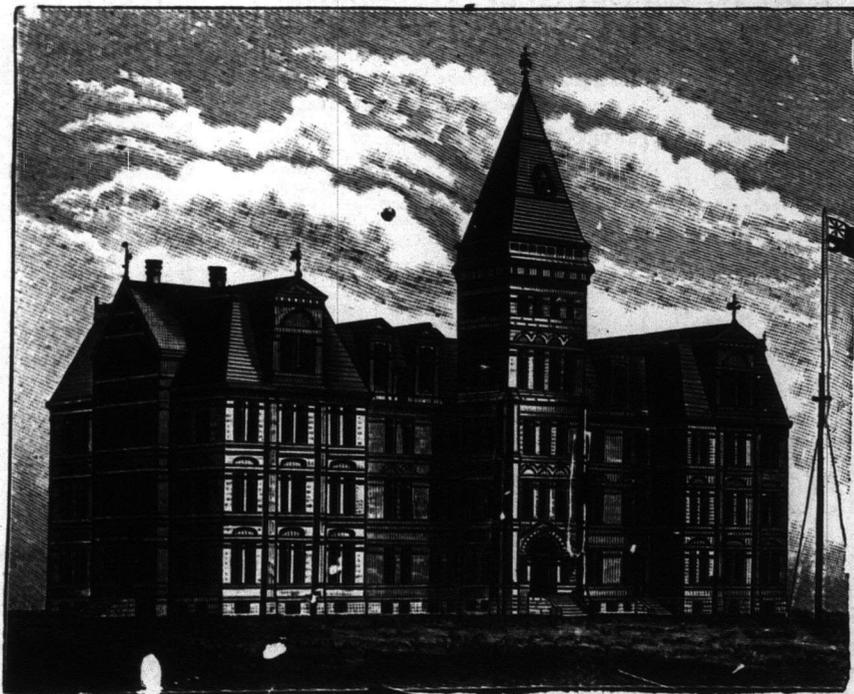
Session begins
September - - 4th
1900

FACULTIES OF ARTS & SCIENCE

Session begins
September 11th,

FACULTY OF MEDICINE.

Session begins
September, 3rd,
1900.



BURSARIES.

The following Bursaries will be offered in September, 1900.

5 Bursaries of \$40
2 Scholarships
of \$120

Mackenzie Bursary
of \$200.

The Calendar containing full particulars of the courses of instruction, examinations, regulations, exhibitions, bursaries, medals and other prizes may be obtained by applying to the President. The President will be glad to correspond with any student wishing information.

FACILE EST.

It is an easy matter to learn LATIN or FRENCH by the DERRISAY ANALYTICAL METHOD. In 3 months you can acquire a sound knowledge of either language. Ten words can be learned by our system as easily as one. We simplify the learning of grammar, dispense with rules, rote learning, drudgery, etc. We can fit you by mail for examinations so that failure will be impossible. Exact pronunciation by phonograph. Satisfaction guaranteed. Part 1 either language, 25c. Key to French Sounds, 25c. Circular Free. Academie de Brisay, 93 Yonge St. Toronto.

For Sale ... AT A... ONE CENT BARGAIN.

A Few DIAMOND POINT FOUNTAIN PENS to close consignment, at 50 cents each.
An ENCYCLOPEDIA OF EDUCATION, admirable for student or teacher. \$2.25.
RAND & McNALLY'S ENCYCLOPEDIA AND GAZETTEER, useful for reference \$3.25.
Delivered free on receipt of price
G. U. HAY, 32 Wellington Row, St. John, N. B.

Shorthand MAIL

Taught by ...
Ben Pitman (or American System).
Terms moderate. Free trial lesson for stamp.
JAMES M WALL, Antigonish, N. S.

ONE CENT

is all it will cost you for a post-card on which to write for full particulars of—

FREDERICTON BUSINESS COLLEGE

The only institution between Ottawa and Halifax in affiliation with the Business Educators' Association of Canada.

Address— W. J. OSBORNE,
FREDERICTON, N. B. PRINCIPAL.

HYLOPLATE BLACKBOARD.

WHAT IT IS: A PRODUCT of wood pulp, which, with cements, is made into large slabs by pressure. The slabs are uniform in thickness and can be obtained in pieces as long as 12 feet, and 3 or 4 feet wide. The writing surface is the best Liquid Slating, and will not have to be renewed for many years. It takes chalk properly and the erasing is easy and perfect.

WHY IT IS THE BEST: BECAUSE it will last as long as the schoolhouse and will not warp, crack or split. Anyone who can drive a nail can put up Hyloplate. It is light to handle and does not break in shipment or when putting it up. It is only half the price of slate besides the great saving in freight and breakage.

For full particulars and price address,

THE STEINBERGER HENDRY CO., LIMITED,

SCHOOL FURNISHERS

37 RICHMOND STREET, WEST,

TORONTO, ONT.

MOUNT ALLISON EDUCATIONAL INSTITUTIONS, SACKVILLE, N. B.

University of Mount Allison College.

DAVID ALLISON, LL.D., PRESIDENT.

THE University of Mount Allison College offers to students, whether desiring to take a full under-graduate course or a partial course limited to special studies, advantages unsurpassed in the Maritime Provinces.

The new University Residence has been constructed and is furnished with every provision for comfort, convenience and health.

Annual Session 1899-1900 begins Sept. 2 st.

Send for Calendar.

Mount Allison Ladies' College, Owens Art Institution and Conservatory of Music.

REV. B. C. BORDEN, D. D., PRINCIPAL.

INSTRUCTION is imparted on subjects ranging from the primary English branches through the whole University Curriculum to the Degree of B.A. Young ladies studying for the purpose of qualifying themselves to teach may here combine the accomplishments with the thorough drill necessary to their profession.

THE CONSERVATORY OF MUSIC is under the direction of a strong staff of experienced teachers, representing the best conservatories and teachers on both sides of the Atlantic.

Art students have the inspiration which comes from constant contact with the splendid paintings which constitute the Owen's gallery.

Mount Allison Wesleyan Academy.

JAMES M. PALMER, M. A., HEAD MASTER.

NO Institution of learning in the country has had a more successful history, and none is more worthy of patronage for the future. Many of the most prominent men now in professional, commercial and political life in Canada, and in other lands, had their training at Mount Allison Academy. A thorough English and Commercial Education is imparted and students are prepared for College Matriculation and for Civil Service examination. Every care is given to the private interests of the boys, so as to ensure their comfort and happiness.

The building is commodious, well heated throughout by the hot water system, and comfortably furnished.

Expenses very moderate.

For particulars apply to the Principal.

McGILL UNIVERSITY, Montreal.

THE CURRICULUM comprises courses in Arts, Applied Science, Medicine, Law, Veterinary Science

Copies of the Calendar containing full information and full particulars of the Royal Victoria College (the new residential college for women students) may be obtained on application.

FOURTEEN EXHIBITIONS IN THE FIRST YEAR (value from \$90 to \$200) will be offered in competition at the opening of the Session, September, 1900. Copies of the Circular giving full particulars of subjects required, etc., can be obtained on application to

(Address McGill College, Montreal.)

W. VAUGHAN, REGISTRAR.



The EMPIRE TYPEWRITER

Visible Writing and Durability,
Two of its Greatest Features.

EQUAL TO ANY MACHINE IN THE MARKET.

Price now, **\$60.00.** * Why pay **\$125.00?**

SEND FOR CATALOGUE

HERBERT C. TILLEY, General Agent,

47 Canterbury Street, SAINT JOHN, N. B.

ACADIA UNIVERSITY. HORTON ACADEMY. + ACADIA SEMINARY.

The Academy prepares for University Matriculation, or for entrance upon Commercial, Mechanical or Agricultural life. Its well equipped Manual Training Department and the N. S. School of Horticulture, in its immediate neighborhood, give it exceptional advantages.

The Seminary provides a thorough Literary training which prepares for Provincial. For Calendar giving full information, write to

Certificates or advanced standing in the University.

First Class instruction in Piano, Vocal and Instrumental Music, Painting and Drawing, Elocution, Shorthand and Typewriting are provided.

The Building is First Class in all its appointments and provides young women with a beautiful and comfortable home.

The College provides a strong Arts Course, with a large number of options after the Second year.

The character of the work done is shown by the large number of its graduates filling important places in the Dominion of Canada and the United States.

A. COHOON, Sec. Ex. Committee, Wolfville, N. S.

KING'S COLLEGE, WINDSOR, N. S.

Courses in Arts, Divinity, Engineering and Science. Numerous Scholarships and Prizes. Course leading to degrees open to non-resident students. Women are admitted on the same conditions, and have the same privileges as men.

THE COLLEGIATE SCHOOL affords an excellent training for boys. Pupils are prepared for matriculation at the universities, and at the R. M. C., Kingston. Good playgrounds and a well equipped gymnasium, in charge of a skilled professional instructor. Calendars of the College and Prospectuses of the school may be obtained from the President of the College, who will readily furnish any information desired.

MANCHESTER, ROBERTSON & ALLISON, ST. JOHN, N. B.

Dry Goods.

Every Department at all times contains the latest novelties and best values in Dry Goods, also Furs, Millinery, Curtains, Portiers, Furniture Coverings, etc.

Clothing.

Men's and Boys' Ready Tailored Clothing, the Best Value and Finest Stock in St. John.

Carpets.

Finest Stock of Axminster, Wilton, Velvet, Brussels, Tapestry and Wool Carpets. Linoleums, Oilcloths and Cork Carpets, Rugs and Mats.

Furniture.

We have the largest and finest stock of Household Furniture in the Maritime Provinces. Parlor Suits, Bedroom Suits, Extension Dining Tables, Side Boards, Easy Chairs, Rockers, Parlor Cabinets, Brass Bedsteads, in all the latest styles.

WRITE FOR PHOTOS.

HOME STUDY.

THE UNIVERSITY OF CHICAGO

offers over 225 elementary and college courses by correspondence in 28 of its Departments, including Pedagogy, History, the Languages, English, Mathematics, Physiology, Zoology, Botany, etc. Instruction is personal. University credit is granted for college courses successfully completed. Work may begin at any time. For circular address

THE UNIVERSITY OF CHICAGO (Div. K) CHICAGO, ILL.

CANADIAN PACIFIC

TOURIST SLEEPERS.

Montreal to Seattle, Wash., without change.

Leave Montreal every Thursday at 9.30 a. m.
Arrive Seattle following Monday at 5.10 p. m.
Cost of DOUBLE BERTH, \$9.00

FOR PASSAGE RATES

To all points in the Canadian North-west, British Columbia, Washington, Oregon, California, Japan, China, Around the World, etc.

..WRITE TO..

A. J. HEATH,
D. P. A., C. P. R.,
St. John, N. B.



DIAMONDS & OPALS

Gold Chains, Bracelets
Watches, Sterling Silver
Goods at

A. & J. HAY'S 70 King Street
St. John, N. B.

Classics for Canadian Children.

No. 1 of this Series is now ready
... It is entitled ...

... **Fairy Tales and Fables** ...

PRICE 10C EACH.

THE BOOKS of this Series are intended to supply a long felt want for good and interesting reading for the young. Other numbers are in preparation and will be announced later.

DO NOT FAIL TO SEE THIS INITIAL NUMBER.
IT CONTAINS DELIGHTFUL READING FOR CHILDREN.

A. & W. MacKinlay, Halifax, N. S.
PUBLISHERS.

Our New Educational Catalogue is now ready.

BOOKS FOR THE TEACHER AND PUPIL.

School Day Melodies, "Tonic-Sol-Fa," by Ada F. Ryan, G.T.S.C.

Part 1 for Grades 4, 5 and 6, Price 10 cents.

Part 2 for Grades 7, 8 and 9, Price 10 cents.

The Song-Teachers' Guide, "Tonic-Sol-Fa," by Ada F. Ryan
Price, 30 cents

Academic Arithmetic, being part IV of the Progressive School Series of Arithmetics, by W. T. Kennedy and Peter O'Hearn.
Price 40 cents

T. C. ALLEN & COMPANY, HALIFAX, N. S.

Headquarters for
All Kinds of **School Supplies.**

TWENTY-EIGHT PAGES.

The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

PUBLISHED MONTHLY.

ST. JOHN, N. B., NOVEMBER, 1900.

\$1.00 PER YEAR.

G. U. HAY,
Editor for New Brunswick.

A. McKAY,
Editor for Nova Scotia

THE EDUCATIONAL REVIEW.

Office, 32 Wellington Row, St. John, N. B. (Telephone No. 1209.)

PRINTED BY BARNES & Co., St. John, N. B.

CONTENTS:

EDITORIAL.....	109-111
OBJECT LESSONS AND NATURE-STUDY.....	111-112
The Heavens in November.....	112-113
Principal Soloan (sketch and portrait).....	113-114
Botany Examinations, 1900, Nova Scotia.....	114-116
Women and Education.....	116-117
Chairman A. M. Bell (sketch and portrait).....	117
CLASS ROOM HINTS AND BUSY WORK.....	118-119
KINDERGARTEN AND PRIMARY DEPARTMENT.....	120-121
CURRENT EVENTS.....	121-122
TEACHERS' CONVENTIONS.....	123-124
SCHOOL AND COLLEGE—ROUND TABLE TALKS.....	125
RECENT BOOKS—NOVEMBER MAGAZINES.....	126-128
NEW ADVERTISEMENTS—	
Webster's International Dictionary, p. 128—Century and St. Nicholas Magazines, p. 128—The Perry Pictures, p. 129—Publishers' Syndicate, p. 130—Canadian Magazine and Educational Review, p. 130—Educational Review and Family Herald, p. 130.	

Always Read this Notice

THE EDUCATIONAL REVIEW is published about the 10th of every month. If not received within a week after that date, write to the office.

THE REVIEW is sent regularly to subscribers until notification is received to discontinue and all arrearages paid.

When you change your address, notify us at once, giving the old as well as the new address. This will save time and correspondence.

The number on your address tells to what whole number of the REVIEW the subscription is paid.

Address all correspondence and business communications to
EDUCATIONAL REVIEW,
St. John, N. B.

OUR advertising pages contain announcements this month of more than usual interest.

"RAMBLES through Forest, Lake and River," No. 4, is crowded out of this number with other articles. They will appear next month.

THE correspondent of the REVIEW at St. Stephen saw Mayflowers in bloom on the 6th November.

THIS is the time of year that our readers are considering what periodicals they shall order for their reading the coming winter. All teachers should read, and should lend to their scholars to read, the *Canadian Magazine*, the only first-class magazine in Canada in which our literature, story, history and everyday topics of interest are treated with a skill and ability that will help very greatly to mould Canadian sentiment and opinion among the rising generation. By a liberal

arrangement we can offer the REVIEW and *Canadian Magazine* for the subscription price of the latter, viz. two dollars and fifty cents a year. This arrangement gives the REVIEW *free* to all subscribers paying in advance. For additional particulars see the announcements in another column.

THE new Webster's International Dictionary to which reference is made in our advertising columns, is a never-failing source of instruction and enjoyment in the home or school. The world-wide commendation it has received from educationists, men of letters, and the press shows the great influence of a work that grows better and more practical at each revision.

THE first number of the "Classics for Canadian Children" series, published by Messrs. A. & W. MacKinlay, of Halifax, has reached us. It is an exceedingly interesting little volume, entitled "Fairy Tales and Fables," with an attractive title page, very appropriate to the name of the series, consisting of a border of maple leaves and the Canadian coat of arms in the centre, printed in red and black colors. The contents embrace some of the most interesting and suggestive of the fables of Æsop, and of the fairy tales of Andersen and Grimm. It will be cordially welcomed by teachers who have been looking for suitable literature for children in the lower grades. It is neatly printed in large, clear type.

THE EDUCATIONAL REVIEW series of Supplementary Readings in Canadian History will be completed by the first of December. The twelve numbers of the series will then be bound in cloth with gold letters, furnishing one of the most attractive volumes of Canadian historical sketches ever published. It will contain about seventy articles with numerous illustrations about events, people and places in Canada. Many of these articles are printed for the first time, and the volume will be one that every person interested in Canadian history, every public and school library should possess. The price of the bound volume will be \$1.15. Every subscriber to the REVIEW whose subscription is paid in advance can obtain this useful volume by paying one dollar, that is, the REVIEW for one year and the bound volume for two dollars. Do not delay in ordering. The edition of the history series is limited.

Do you wish to club the REVIEW with a paper that will give you the news of the week from Canada, the Empire and throughout the world, with other matter that will enable you to give an interest to your lessons on history, geography, literature, and especially to Canadian affairs and events? See the announcement elsewhere in this number.

THE need of a good dictionary is one so frequently felt by teachers that the prospect of obtaining one at a moderate figure will be warmly welcomed by many, who have not been able to afford the investment heretofore. The Standard Dictionary is known wherever English is spoken. By thousands it is considered the most complete English dictionary in the world, and by all it is admitted the equal of any ever published. The Publishers' Syndicate, Limited, of Toronto, makes in this issue a special and limited offer of this great work, in two volumes, at low figures, lower indeed, than ever before quoted. The announcement will repay perusal and careful consideration.

LORD ROBERTS' appeal to the people of the British empire not to give intoxicating drinks to the returning soldiers should be read in every school in Canada, and posted in large letters in every community. "I am proud," the commander-in-chief says, "to be able to record with the most absolute truth that the conduct of the army throughout has been exemplary. Not a single case of serious crime has been brought to my notice. The men bore themselves like heroes on the battlefield, and like gentlemen on all other occasions." Lord Roberts adds that he makes this appeal to the people because the giving of intoxicants to the soldiers when they were leaving for South Africa caused distressing and discreditable scenes; and the return home, it must be added, has caused, in too many cases, equally distressing and discreditable scenes.

Examiners and Examinations.

Dr. Waddell's criticisms in another column on the answers to questions in the recent examinations on botany, in Nova Scotia, should lead teachers to examine more closely their plans of teaching this and other natural science subjects. As he clearly points out, there can be no skill in comparison, no definite results in training, without accuracy of observation. It is this lack of definite results in training that has caused the study of botany, and indeed of all natural science subjects, to be spoken of slightly when compared with other subjects in the school course. But there is no subject that affords more opportunity to cultivate accuracy of observation, and the development of the reasoning powers, than does botany, or for that matter, any subject of natural science. That better results are not obtained is not the fault of the subject, but rather the way it is presented. The lack of training on the part of teachers, insufficient time, want of system in teaching such lessons, are formidable obstacles, but they can be surmounted.

Every teacher should attend to the careful preparation of a good plan of outline lessons; presenting points in such a way as to secure pupils' interest and create a desire to do original work; lead the pupil along step by step with clearly defined ends in view, instead of loose and disjointed lessons which begin and end nowhere; be satisfied to do a little at a time and thoroughly; avoid the error that looking at an object is examining it. If we add to this a desire to inspire children with a love of nature, a desire to have them possess a more intimate knowledge of it, the use of a few good books as reference, then we shall obtain better results from the study of botany and other branches of natural science.

We are glad that Dr. Waddell has taken teachers into his confidence and has shown them a better way to do things. Now, who will follow his example? We would like to ask the examiners in English, mathematics, history, classics, how the pupils of our public schools stand after a training of eight or ten years. Is the teaching as unsatisfactory in these subjects as it is in botany? If so, should not the defects be pointed out and a better way suggested? The REVIEW would be glad to give space for their suggestions. Teachers, if they are pursuing wrong or faulty methods, would like to be set right; and who is more capable of doing this than the examiners? They know, or should know, whether the essentials of any subject have been grasped by the students. They know whether our educational system, with its elaborate courses of study, fails to train; whether we are attempting too much or too little in fitting students for their life work. Let us then have honest criticisms and clearly defined suggestions from a class of educational workers who have it in their power to a great extent to make more efficient schools. Take us into your confidence, gentlemen, say the teachers and pupils, and we will be glad to work with you for better results.

Are examinations really necessary? Do they serve any useful purpose in our educational system? Are the results commensurate with the worry, danger, excitement, and the cramming process too frequently incidental to their preparation, especially among backward and delicate children? These questions we shall not discuss here. The written examination is a part of our educational machinery. It is with us, probably to stay. Properly used it is an undoubted advantage. But there should be fewer subjects for examination, abundance of time given to students to think and write, questions chosen that will discourage mere cram and memorizing, and finally there should be means of communication

opened between examiners, teachers and students, as soon as possible after the examination, in order that suggestions and criticism may be freely made about faulty work.

It is the custom of the examiners at McGill University who read the papers sent up from various centres in the province of Quebec, and other parts of Canada where the University School Examinations have been held, to criticize the main features of the work done. Whatever is creditable is praised; faulty work is mercilessly exposed; and as the standing of the scholars from the different schools is published, there is no difficulty in tracing to its source the work, whether creditable or otherwise, of each school. The plan is an admirable one, faithfully carried out from year to year, and has had an excellent effect on the schools taking part in the examinations.

The REVIEW offers its columns freely to the examiners of our schools for the same purpose.

A Warning to Teachers.

A friend suggests that the REVIEW keep a standing announcement in its columns warning teachers against being victimized by agents who enter the schoolroom and take up the time of the school in trying to palm off their wares. Teachers should firmly insist on their rights, and decline to have their own time and the time of the school wasted in listening to agents whose aim, too often, is to delude teachers into supposing that they are missing the opportunity of a lifetime if they fail to purchase the book, map, or other article that forms the stock-in-trade of these agents. If the article is of any merit, they can wait until after school hours; but too often the article is valueless, some map or other appliance not prescribed and out of date elsewhere, but which has been varnished over, adorned with some new name, and held up to the view of the too confiding teacher as the one thing that is going to work miracles in the school. An agent once remarked, in the presence of the writer, that school-teachers were the most "gullible" of any class in the community. Is that true? It is not. Teachers are wide-awake and intelligent as a class. And it is just as well to have a clear line of action laid down when an agent calls: Never decide at once. Take time for cool deliberation and examination. Do not be carried away by the words of a voluble and plausible agent. Your own calm judgment and intelligence should surely be the best guide in determining what you want. Your local dealer or the regular dealer in the nearest town should have your preference, wherever possible, for reasons that are readily seen.

OBJECT LESSONS AND NATURE-STUDY.

By J. BRITAIN, NORMAL SCHOOL, FREDERICTON.

These notes are intended to aid the busy teacher, who has, perhaps, to give lessons to two or more classes and in all the subjects of the Course of Instruction in preparing Object Lessons and Lessons in Elementary Science. But the teacher must breathe life into these dry outlines and induce each pupil to see, think and do for himself or herself, else the educational results will be of very small value.

Lessons on a Block of Wood.

The children have been made familiar, by actual use, with the common English measures of length—the inch, foot, yard, etc. A set of rectangular wooden blocks have been procured equal in number to the class. These blocks should be of several different sizes so that each one will have to be measured by the pupil who gets it. The dimensions, in all cases at first, should be an exact number of inches (no fractions). The teacher will find it convenient to number the blocks, and make out a list of them showing their dimensions. This list may be used in testing the accuracy of each pupil's work. A carpenter will make the whole set from pieces of scantling for a trifle or less. If packed away in the school cabinet, the blocks will serve for many classes. Ask the children not to deface the blocks by writing upon them or cutting them. If any of them forget, require them to erase the marks or furnish a new block. You will thus give a valuable lesson in morals while teaching mensuration.

OUTLINE OF LESSON I.

1. Each pupil is supplied with a rectangular block of wood, a foot rule, a pencil, and paper or a slate.
2. Find how many *faces* this block has—and which are the largest—which next—and which the smallest.
3. Find how many *edges* the block has, and how many each face has.
4. Find the length, in inches, of each edge of the upper face—of the lower face—of the side faces—of the end faces.
5. Show the pupils (or, better, give each of them) a cubical block each of whose edges is one inch long.
6. How many faces has this little block? How many edges? How long is each edge? Which is the largest face?
7. Each face of this block is called a *square inch*.
8. Trace on paper (or slate) an outline of the upper face of your (larger) block.
9. Divide each side of the outline by marks into parts one inch long. Then, by joining these marks by straight lines, divide the surface into square inches.

10. Find how many square inches would cover the upper face of the block.

11. Multiply the number which indicates the length in inches of one of the longer edges of this face by the number which expresses the length in inches of one of the shorter edges.

12. What resemblance do you notice between this product and the number of square inches which you found would cover this face? Account for the equality of the two numbers.

13. The number of square inches which will cover this face may be called its *superficial contents* or its *area*.

14. Find the superficial contents (or the area) of each of the five other faces of the block.

15. Find the area of the whole block, that is, of all its faces taken together.

16. Point out the fitness of the terms *superficial contents* and *area*.

The teacher should here, after the pupils have written the words, call their attention to the resemblance in spelling and origin between *superficial* and *surface*, *contents* and *contain*, and ask them to find and write the derivation of the word *area*.

(Lesson II will appear next month.)

A Lesson on a Leafless Branch.

The pupils have examined a leafy branch before, and know that the mark left by a leaf when it parts from the branch is called a leaf-scar. A sufficient number of alder branches, each bearing two or three smaller ones, may be procured with but little trouble even by city schools.

If the lesson is skilfully conducted many of the following questions will be proposed in their right place by the pupils themselves. *Each pupil* should as far as possible be allowed and required to find the answer to the question under consideration before he hears it from some other member of the class, or from the teacher. If the class is not well prepared, this lesson may have to be divided into two.

OUTLINE OF THE LESSON.

1. Each pupil is supplied with a branch of the alder.
2. What do you miss from this branch? and what do you find on it?
3. What questions have you to ask about it?
4. Where are this year's leaves now?
5. What took them off?
6. Find where they grew.
7. What do you find, in most cases, above the scars left by this year's leaves?
8. What do you find close below each of the small branches where it leaves the main branch?

9. When did the leaves which left these old scars fall off?

10. What was close above each when it fell off? Why do you think so?

11. What has since taken the place of that bud?

12. How do you account for that?

13. Tell why you think these branches are just buds grown big.

14. What would have become of the buds now on the branches if the branches had not been cut off?

15. What then, is the use of the buds which form in the angles (axils) above the leaves?

16. What would the result be if there were none of these *axillary* buds?

17. When would these buds grow into branches? and what would the resulting branches have on them then? Why do you think so?

18. Just where, then, would next year's leaves have been?

19. Show whether there ever would have been any leaves again on the parts of this branch which have once borne leaves.

20. How old are the parts of the main branch and of the smaller branches which now bear buds, and which bore leaves this year?

21. Where were these branches and parts of branches last winter? How do you know?

22. Find how much the main branch and each of the smaller branches increased in length this year.

23. How can you tell where the part which grew last year ends?

24. What do you find now on the ends of the main branch and of the other branches?

25. These buds are called *terminal* buds. Why?

26. Find where last year's terminal bud was. What became of it? Why do you think so?

27. What then, is the use of the terminal buds?

The author will be glad to receive and will try to profit by any criticisms upon these or succeeding lessons offered by teachers who have tried them, and to give to teachers who desire such help, answers to any of the questions.

The Heavens in November.

An astronomical event for November is the annular eclipse of the sun on the 21st, not visible in Canada. The path of the eclipse lies chiefly in the Indian ocean, across South Africa on one side and Western Australia on the other.

There is hope that we may see a great shower of Leonid meteors this year, and it will be well to watch the sky on the nights of the 14th and 15th of Novem-

ber. The "radiant point" will be inside the sickle of Leo. As this constellation is barely risen at midnight, it is useless to begin the watch until after that time, and unfortunately the waning moon in the eastern sky will enable the watcher to see only the brightest meteors. Those who were disappointed in their vigils in November, 1899, may be more fortunate this year.

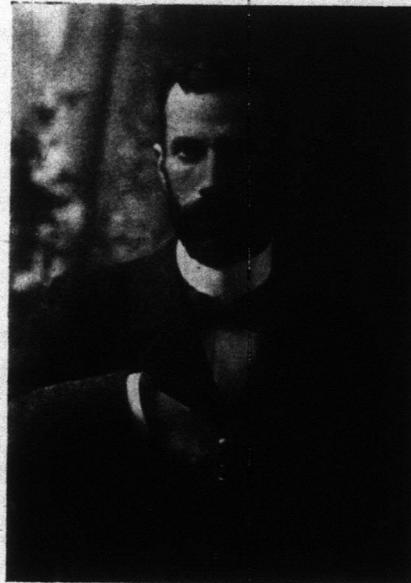
At 9 p. m. on November 15, the most brilliant part of the sky is near the eastern horizon. Just south of east is Orion. The line of his belt is almost vertical, and the still brighter stars, Betelgeuse (on the left) and Rigel (on the right), afford a striking contrast in color, the former being a strong red and the latter pure white.

North of east, and also low down, is Gemini, marked by the twin stars Castor and Pollux, of nearly the first magnitude, south from which extend two lines of stars in which a little imagination sees the Twins themselves. Above Orion, Aldebaran and the Pleiades mark the position of Taurus; and to the north, over Gemini, is Capella, the brightest star of Auriga.

The great square of Pegasus is a little past the meridian. A conspicuous row of bright stars extends from its northeast corner through Andromeda and Perseus toward Auriga. The huge extent of Cetus fills most of the southeastern sky, and Aries is higher up. In the southwest the only conspicuous star is Fomalhaut. Vega and Altair are well down in the west, and Cygnus is higher up. Cassiopeia is almost above the pole, and the Dipper is opposite, skirting the northern horizon. To the right of Vega is the head of Draco, whose curving body extends for a long distance between the Great and Little Bears.

Mercury is evening star until the 19th, but too near the sun to be clearly seen with the naked eye. Venus is the brightest object in the morning sky, but growing less brilliant as it recedes from the sun. Mars rises about midnight and is steadily growing brighter. Jupiter is evening star in Scorpio, but too low in the west to be easily seen after the middle of the month. Saturn is also evening star in Sagittarius, setting about an hour and a half later than Jupiter. Uranus is in Scorpio, near Jupiter, but too near the sun to be visible. Neptune is in Taurus, invisible to the naked eye.—*Condensed from Scientific American.*

A new law in Iowa provides that every school district must annually set aside from five to fifteen cents for every child of school age, the money to go for the purchase of books for the school library. During the school year the books are to be kept in the schoolroom, but in vacation time they will be kept for the use of the pupils in some private house or store selected by the board. The books to be purchased are limited to a list which the state board of education is to make out. Already most of the Iowa cities have availed themselves of the law permitting school directors to spend \$25 a year on books.—*Pathfinder.*



David Soloan, B. A.

Last July, after thirty-one years of faithful and efficient service, J. B. Calkin, M. A., resigned his position as principal of the Normal School at Truro. His successor is David Soloan, B. A., who enters upon his new duties on the 17th of this month.

Mr. Soloan was born at Windsor in 1867. A small private school, the common schools of Windsor and the Hants County Academy, may each claim a share of the honor of having prepared him so well for college that at the early age of seventeen he entered Dalhousie University with a Munro Exhibition, good for two years, after which he took a Munro Bursary, good for another two years, and was graduated in 1888 with honors in English and history.

Of his early teachers, Mr. Hiram Elliot, now a physician of New York, was perhaps the most successful in discovering for the promising young student his tendencies, and in making him taste the pleasures of mental conquests. In Dalhousie University he was inspired, as were many before and since, by Professor Macdonald's originality and literary culture. From Dr. Alexander he acquired his superior command of good English, which, seasoned with more than the average native wit, enables him to hold the attention and amuse while he instructs his readers.

Three years as teacher of English in Pictou Academy, one year in re-organizing the General Protestant Academy of St. John's, Newfoundland, and six years as principal of New Glasgow High School, constitute a period of ten years in the practice of teaching, and in the private study of some of the languages of Northern

Europe. During these years, and in somewhat diverse forms, he met and studied many of the difficulties and problems which confront educationists in this country. In order to have the mass of facts thus accumulated put into organized form, he visited Germany, spending the autumn and winter of 1898-9 in Berlin University, and the next six months at Heidelberg studying Teutonic philology and German pedagogy. He then spent three months at the Sorbonne and College of France comparing different systems and verifying results.

Mr. Soloan has written a good deal for the press, mainly very interesting newspaper letters while abroad, and a valuable and most exhaustive article on "Rural Schools." His training at college, his practical knowledge, obtained in the best schools of the province, and his study of the educational systems of Germany and France, should all be an admirable preparation for the responsible duties devolving upon him as principal of the most important educational institution of the province.

In 1897 Principal Soloan was married to Miss Elizabeth Moody, one of the chief ornaments of the best society of Yarmouth. She accompanied her husband in all his European travels, which were considerable, taking a most intelligent interest in all she saw, and making a careful study of the customs and fine arts of the towns and villages of Western Europe.

For the REVIEW.]

Botany Examination, 1900, Nova Scotia.

[By Professor John Waddell, Ph. D., School of Mines, Kingston; late of the Royal Military College of Canada; Associate Examiner in Science, High Schools, Nova Scotia.]

The first requisite in the pursuit of an experimental science is accuracy of observation. Without it skill in comparison (the second requisite) is impossible; with it, comparison is easy.

In that form of botanical instruction most suitable to a school course, a training in accuracy of observation and in readiness of comparison is specially prominent, and thus botany is one of the very best subjects with which to begin a scientific course. Moreover it is probably the one from which the greatest pleasure can be gained in after life by the every day worker in the home, in the shop and in the store; and to the farmer it lends an interest in his labor otherwise unattainable.

Botany appeals to the ordinary experience; and while giving a very excellent training in the first essentials of a scientific education does not call for powers beyond those of the average pupil in the schools.

The subject has somewhat recently been added to the syllabus for the provincial examination in Nova Scotia and has most wisely been prescribed for the D (or lowest) grade. It is not to be expected that on the first introduction of the subject into the curriculum of schools perfect success in teaching it should be attained, and it

is in the hope of affording a little help to those preparing themselves or others for the examination that I offer a few suggestions. I have had access as examiner to the papers written by candidates at the recent July examination, and I think that I cannot do better than discuss the questions in order.

I consider the examination paper almost ideal for its purpose. A candidate is allowed a wide choice in the selection of plants to study, but he is expected to study those which he does select thoroughly. The only question in which the examinee is strictly limited is the first, and the plants in it are of the most common occurrence. Nearly the whole ground of morphological botany is covered by the paper; and though it might be difficult to make full marks, it should not be hard to make fifty per cent., provided the candidate's knowledge is accurate and is not that general knowledge which has been well designated as definite and dense ignorance.

Question 1—Compare each of the parts of the flower and fruit of the Buttercup with those of the Strawberry, illustrating by outline drawings of the parts when convenient.¹

It is to be noted that a general description of the plants is not asked for. Many candidates overlooked this point and gave descriptions of root, and stem, and leaves, which were entirely beside the mark and not only gave the examiner much useless matter to look over (a thing to be avoided in the candidate's own interest), but consumed valuable time which might have been profitably spent upon another question. The comparison is to be drawn between the parts of the flower and fruit of the buttercup and of the strawberry. A comparison implies a placing side by side so that similarities and differences may be easily seen. It is not a comparison between the two flowers to say that the buttercup has five petals, many stamens and pistils, and that the strawberry has a persistent calyx, white petals, and blooms in late May or early June, because the points mentioned about the strawberry have not been mentioned about the buttercup. It would be a comparison to say that the buttercup has five petals, many stamens and pistils, and that the corolla is yellow, while the strawberry has five petals, many stamens and pistils, the corolla being white. The comparison is very imperfect, however, and more suitable for a kindergarten than for boys and girls thirteen or fourteen years old.

The two flowers may be described separately, but the description of the parts should be in the same order, and the points brought out should be important and relevant. It might be better to compare the flowers point by point, first the calyx, then the corolla, and so on, but an examiner would probably be very well content if the description were written so that the candidate showed evidently that he was fully cognizant of the points of similarity and difference.

I am afraid that if one had to depend upon the comparison drawn by many of the candidates in order to decide whether one had the flower of a strawberry or a buttercup in one's hand, difficulty would be experienced, unless indeed the color chanced to be given. The following example will illustrate: "The petals of

¹I may mention that one candidate at the end of his description remarked, "I do not find it convenient to illustrate by drawings." His naivete was more than equalled by another candidate who stated that he never studied flowers.

the buttercup and strawberry differ in color, but in respect to size, number and shape they are almost exactly alike. Their stamens are alike but the pistil of the strawberry grows into a large fleshy bulb with the seeds on the outside. Their calyxes are the same in size, number and color." There is comparison between the parts of the flower, but it is valueless, for, though we are told that there is a *difference* in color we are not told the color of *either* flower. There is a very imperfect description of one fruit but no comparison, because the other fruit is not even mentioned.

The buttercup belongs to the very important order Ranunculaceæ, and the strawberry to the very important order Rosaceæ, hence it is evident that, at all events, the differences in the flowers of these two orders should be worthy of notice in the comparison.

The flower of the buttercup has all its parts distinct and inserted on the receptacle, the head of the flower stalk, while the parts of the strawberry are not so distinct. The calyx of the buttercup, having its five sepals distinct, is said to be polysepalous, while the five sepals of the strawberry are partly united and the calyx is gamosepalous. In addition to the calyx of the strawberry there are five little bracts alternate with the teeth of the calyx and forming the epicalyx. It is noticeable that the calyx of the strawberry remains after the fruit is ripe, thus being persistent, while the calyx of the buttercup, falling off at an earlier stage, is caducous.

The petals of the buttercup and of the strawberry are five in number, but those of the former are hypogynous, being inserted upon the receptacle, those of the latter are perigynous, being inserted upon the calyx. The corolla is in both cases polypetalous. The many stamens of the strawberry are separate from each other as are those of the buttercup, but differ from the latter in being, like the petals, attached to the calyx. The pistils are in each case separate from each other, are numerous and are inserted in much the same way upon the receptacle.

The fruit of the buttercup consists of the ripened carpels each containing one seed. In the case of the strawberry, the ripened carpels remain attached to the receptacle which grows large and juicy and is ordinarily called the fruit, but as this fleshy part is separate from the seed vessel the fruit is accessory.

No attempt has been made in this comparison to separate the characters distinguishing the two natural orders from other peculiarities, but the points mentioned are important. Should the candidate be able to add peculiarities of shape of the different parts, such as the little sac at the base of the petal of the buttercup, well and good, but the time for writing an examination paper is limited and the differences between the stamens and pistils are details that could hardly be expected from the candidate unless a very small number of plants are prescribed with a view to such minuteness.

When five questions are to be answered in an hour, the examinee could not take so much time as I have done in this comparison, but it could be much shortened while indicating quite clearly the candidate's knowledge. It would be sufficient to say that the flower of the buttercup has all its parts separate and inserted on the receptacle; that the sepals and petals are five in number,

and the stamens and pistils numerous; that the strawberry, in addition to the five sepals of a gamosepalous, persistent calyx, has an epicalyx of five little bracts; that its five separate petals are inserted upon the rim of the calyx tube, upon which are also the numerous stamens, within which there are numerous separate carpels; and to give a similarly condensed comparison of the fruits.

2.—Describe by drawings and otherwise all parts, root, stem, leaf, flower and fruit, of the Dandelion plant, or of the Lady's Slipper, or of the Indian Turnip, or of the Marsh Calla, or of the Blue Flag, or of the Apple tree, or of the Spruce or Pine.

A wide choice is given of plants having marked peculiarities and the candidate should be able to fix upon some one that he could describe in detail, especially as all of them are taken up in the text book.

In describing the dandelion I shall endeavor to make plain some of its peculiarities. The dandelion has a tap root, its stem is very short, supplying a whorl or circle of leaves. The leaves are simple but deeply indented, giving the name to the plant, owing to the similarity to lions' teeth. What is usually called the flower consists of a large number of small flowers in a compact head growing on a long, hollow stalk or scape which must be distinguished from the stem of the plant. Each little flower of the head has its petals joined in a tube, one side of which is much prolonged, and by its five little teeth indicates the union of five petals. The five stamens are inserted upon the corolla and are joined by their anthers forming a ring round the style of the pistil. Because joined in this way they are said to be syngeneisous. The pistil has a long style passing through the ring formed by the anthers and dividing into two stigmas, which indicate the existence of two carpels in the ovary. The ovary is inferior being surrounded by the corolla. A tuft of silky hairs, on a short stalk above the ovary, is considered to represent the calyx. As the seeds ripen, the stalk lengthens, the silky hairs spread out forming an umbrella-shaped *pappus* which enables the fruit (an *akene*) to be transported by the wind. Surrounding the head of flowers is an involucre—a circle of bracts often mistaken for a calyx.

3.—Describe the seed, germination and early growth of any plant which you have actually observed, with drawings. How may seeds be classified? What is a striking distinction between a seed and a spore?

If the germination and early growth of a bean is correctly described the examiner may not be able to tell whether the examinee has actually observed it or not, but if it is described in words that would just as well suit a pea, or a morning glory, or a corn seed, it shows that though the candidate may have planted a bean and looked at it occasionally, he has not carefully observed it. Many candidates did not really know what the cotyledons are, not distinguishing them in character from the later leaves, but would make remarks like this: The embryo begins to grow, first sending up two leaves called cotyledons, after which follow other leaves, and thus the plant grows till it bears flowers and fruit. I would suggest that the pupils should plant some seeds, whose early growth is described in the text book, and at the same time plant some other seeds and compare the development in each case. The classification of seeds

caused a great deal of difficulty. If the function of the cotyledons had been better understood, the division of seeds into albuminous and exalbuminous, according to whether or not there is albumen surrounding the cotyledons in the seed coats, would have been more obvious. The division, monocotyledonous, dicotyledonous, and polycotyledonous, is hardly a classification of the seeds, since it is a division pertaining to the whole plant. In a division such as "dehiscent and indehiscent" or "akene, pod, drupe and pome" a confusion is evidently made between the seed and the fruit, while the reader is left to characterize the confusion involved in the division "monadelphous, diadelphous, triadelphous and polygamous." The most striking difference between a seed and a spore is that a seed has an embryo while a spore has none.

4.—Describe in detail with drawings, all the important parts of a Fern, or a Mushroom, or a Moss, or a Horsetail, or a Liehen, giving a sketch of its development from spore to the mature plant.

A very large portion of the flowerless plants is covered in this question, so that the candidate who had studied flowerless plants at all, should be able to give some details of importance about some one of them.

The peculiarities of the mushroom as one of the large class of fungi are, however, hardly brought out by the statement that "the mushroom consists of a short stem, covered by an umbrella shaped cap, comes up in a night and is good to eat."

The description of any of these might be made general or special, though I fancy that a general answer was expected. What I mean may be illustrated by the fern. In some of the schools a good deal of attention is paid to ferns, and some species may have been studied pretty fully. A candidate from such a school might describe the cinnamon fern much as is given in "How Plants grow." Rhizome stout, horizontal, sterile and fertile fronds distinct, the former large and pinnate, having a small tuft of hairs on the lower surface of each pinna, the latter contracted and not leafy, and decaying early in summer; the sporangia cinnamon colored. It would be assumed that such a candidate would know what was meant by rhizome, frond, etc.

In a general description these terms would need to be explained. Probably no candidate would be able to give anything but a general description of the prothallium.

5.—Discuss and illustrate the minute structure of any part of any plant which you have studied through the microscope, or give a list of the plants which you have studied and analyzed or dissected, and the approximate date of flowering.

This question gives a chance to the specialist in minute anatomy while at the same time affording an opportunity to the worker on the larger scale. It is not expected, however, that the former will describe the general structure and appearance of the Morning Glory, with the shape of its leaves and flower, nor does the latter show that he has profited much when he gives a list of twenty or more plants that he has studied, including nearly every one in the previous questions; while in his answers to these questions he has made scarcely a single correct statement.

I notice in the papers that the botanical terms are frequently misspelled. This indicates that the teacher would be wise to write these names on the blackboard. The most conspicuous example that came under my observation was in a paper which contained in one question the words "seppels," "pettels," "stayments," and "pistons," and in another place "cotolegions."

For the REVIEW.]

Women and Education.

At the annual meeting of the National Council of Canadian Women, held in Victoria, in the month of July, the subject of education occupied a large share of attention among the thoughtful and practical women who came as delegates from all parts of Canada. One whole day of the five business days was devoted to papers and discussions on this most important topic.

On that day it was considered not only in its professional aspect but in the broader view, as the gradual development of the little human being from its first appearance in the world. The key-note was given by Miss E. R. Scovil, one of the St. John delegates. In a paper on "The Life and Training of the Child," she pointed out the importance of girls being taught and prepared to attend to the physical as well as the mental and moral education of the young; for much depends on the first influences that surround children.

The discussion on the next stage in education was introduced by Miss Ross, of Toronto, in an address on Kindergarten Work. Miss Newman, of Vancouver, read a paper on the same subject and moved, on behalf of the Vancouver Local Council, a resolution on the importance of the addition of kindergartens to the public school system. Then followed a lively discussion. Most of the delegates approved of the resolution, but there were several who thought that instead of separating children from their mothers at such an early age, it would be far better to stir up mothers to do their duty in teaching the first lessons of industry and neatness at home; and one delegate drew a touching picture of a cottage where the mother rocked the baby's cradle and watched the dinner cooking, while at the same time she taught her little girl to sew. The reply to this was, that while there were many ideal homes among the poor, there were also many crowded, over-heated dwellings where the hard-worked mother had but little time to sew and still less to teach her children. The importance of kindergartens became more and more apparent as the discussion proceeded, and a resolution was passed, the members of the Council pledging to do all in their power to establish kindergartens in connection with the public schools in any of the provinces of the Dominion where they do not already exist.

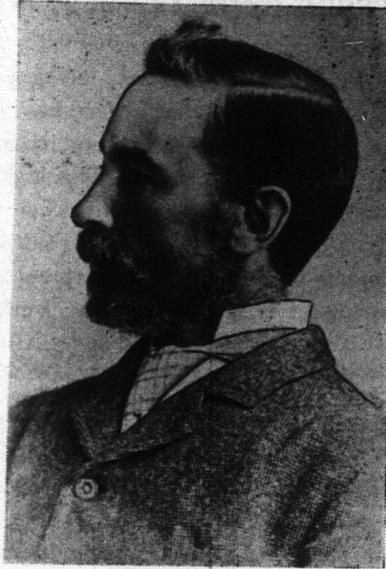
Manual training and domestic science were dealt with in interesting papers. . . . Normal Training was the subject of an excellent paper by a thoughtful teacher of much experience, Miss Shenick, of Ottawa. She urged the supreme importance of learning to teach. She insisted that however much knowledge a teacher may have accumulated, it is almost useless unless the power of conveying it to another mind is possessed. At the close she spoke of the justice of paying equal salaries, regardless of sex, to those who had passed similar examinations and did similar work. . . . A motion that teachers' provincial certificates be recognized throughout the Dominion, with an amendment that "the National Council of Women use their influence to make the standard of examination uniform before teachers' provincial certificates be recognized throughout the Dominion," was referred back to the local councils, and through them to the teachers' provincial institutes, for further consideration.

The last topic, "Co-operation between Parents and Teachers," was ably treated by Mrs. Grant, of Toronto, and Agnes Deans Cameron, the Secretary of the Teachers' Association and one of the leading teachers of Victoria. She is a striking personality, tall, commanding figure, an intellectual head and marked features. Full of energy and decision, she is at the same time sympathetic and warm-hearted. She has independence of thought, good command of language, and a peculiarly keen sense of humour which was very evident in her paper; and, when asked by an eastern delegate if she employed her wit in school, she said that she often found it useful in impressing her ideas upon the memory of young people. Her brilliant paper touched upon several topics with amusing irony—the crowded curriculum, the hurry of modern education, and it closed with an earnest appeal for true friendship and co-operation between parents and teacher.

These educational discussions have been but slightly touched in this short paper,¹ but the mere fact of their taking place in the National Council of Women, composed as it is of women of various opinions and different positions in life, this fact must tend to awaken in non-professionals a deeper interest in education, must aid in forming a correct public opinion on the subject, and thus must assist in advancing on true lines the great cause of public education, for experience teaches the correctness of the statement "the discovery of truth is the result of the working of many minds in many ways."

FRANCES ELIZABETH MURRAY.

¹And Miss Murray's interesting paper unfortunately has had to be still further curtailed on account of want of space.—EDITOR.



A. M. Bell.

A. M. Bell, Esq., the retiring chairman of the Halifax School Board, is a son of the late Sheriff Bell, and grandson of the Hon. Hugh Bell, both highly respected public men of Halifax.

He was educated at the Free Church Academy. He was quite young when in 1863 he left school to enter the office of Black Bros., where during a period of twelve years he mastered thoroughly every detail of the hardware business in which, on his own account, he has since been so successful. As a leading merchant of the city he is favorably known for his force of character, well balanced judgment and unswerving integrity.

His inherited instincts and early associations led him to take a leading part in the public affairs of his native city. He has been Superintendent of Charles Street Methodist Sunday School for about twenty years, in consequence of which, it is one of the largest and most successful Sunday Schools in the Maritime Provinces. He is a governor of Mt. Allison University and president of the Maritime Wholesale Hardware Association. He has done much to assist every movement for the amelioration of the evils incident to city life, especially in his efforts to promote reforms in temperance and civic legislation.

It was therefore with satisfaction that the public learned of his appointment three years ago to the School Board. Here as elsewhere he was characterized by a conscientious devotion to the responsible duties of his position, and as chairman for the last year by his tact, uniform courtesy and impartiality.

Being still in the prime of life it is to be hoped that his wide experience and enlarged opportunities may be utilized even to a greater extent than heretofore for the benefit of this country.

CLASSROOM HINTS AND BUSY WORK.

An inspector at a recent institute meeting said, "On inspecting a school if I find that a child has been taught to think, no matter how hesitating and stumbling the answer may be, I am satisfied." The highest praise given by an English inspector to a teacher was "that he allowed his slow boys time to wriggle out an answer." Give your pupils time to think and express themselves. Of what advantage is it to hurry over work if this is not done?

LESSON ON GLASS.

The REVIEW has been asked to give a lesson on Glass. First, there is this caution: Do not waste the time of the pupils, however young, with those common properties which every child has observed from the time he could see or feel. An incident reminds us that this caution may be necessary: A boy returning from his first day at school was asked what he had learned. The reply is suggestive: "Nothing, 'cept what I always knowed."

History.—Glass was made by the Egyptians during the earliest historic period, but it was applied to ornamentation, to the making of vases, beads, cups, lamps, etc. During the middle ages it was made for windows, especially of churches.

Manufacture.—Great skill and care are required in making glass. There are six kinds, each requiring its own peculiar manufacture, building and furnace,—bottle, crown, sheet-window, plate, flint and colored glass. There are many materials and processes which enter into the making of these different kinds of glass which cannot be enumerated here. For ordinary purposes flinty sand, lime and soda are used. These ingredients are put into melting-pots made of clay, and being subjected to great heat form liquid glass. The process of annealing or tempering requires the greatest care and watchfulness. If not well done the articles will, it may be months afterward, break suddenly and without warning.

Uses.—For windows, vessels of all kinds, flasks, test tubes, lenses, toys, etc.

Properties.—Transparent. Under strong heat it becomes soft and pliable, and may be moulded into many shapes. (Heat a glass tube by means of a spirit lamp and after a time by gently pulling at each end it can be drawn out into a fine thread. Heated still further the glass becomes liquid, and can be poured into moulds to form vessels of different shapes). The weather, burial in the ground, or subjecting it to the action of acids has no effect on glass. All of these influences tarnish metals, wood and many other substances. (Test this by

showing that acids are kept in glass bottles with glass stoppers, and then show the effect upon a splint of wood, or a piece of iron or copper wire, by putting it in strong sulphuric acid) Glass is hard. (How is it cut?) Its hardness varies according to the substances used in its manufacture. Common window and test tube glass is very hard. (Why?) Spectacle glass and that used for lenses is generally softer. (Why?)

Experiment and question wherever possible in giving the lesson. Require the children to make a list of all uses of glass that they know of.

SOUNDS OF LETTERS.

A teacher sends the following: In schools where the sounds of the letters are taught, the following exercises for seat work will be found very beneficial. Make lists of words either from the lesson or from the book, in which *o* has the sound of *ah*, as in Tom.

" e " " *eh* " hen.
 " a " " *ah* " hat.
 " i " " *ih* " big.
 " u " " *uh* " tub.
 " ee " " e " three.

" oo " " as in soon, food.

" *ch* " soft sound as in watch.

" *ch* " sound of *k* as in school.

" *sh* has the sound as in shell, fish.

" the final *ed* has the sound of *t* as in watched.

" " *ed* has the sound of *d* as in turned.

" " *ed* makes a syllable by itself as in ended.

" " *e* makes the vowel before it long, as in stove, came.

" " *y* has the sound of *ee*, as in happy, nearly.

" " *y* has the sound of *i*, as in fly.

" *c* with an *i* before it, has the sound of *s*, as in nice.

These exercises can be varied to suit the different grades, and an ingenious teacher will be able to think of many more.

I. B.

FIVE-MINUTE EXERCISES.

These exercises in letter-writing were prepared for the lowest class in the high school, New Haven:

1. Write to a merchant in another city asking for samples and prices of goods.
2. Write a formal note inviting an acquaintance to a social gathering at your home.
3. Write a formal note accepting an invitation to dinner.
4. Decline an invitation to accompany a friend to a concert.
5. Write an informal note to a friend in a distant town, inviting him or her to make you a visit.
6. Write an informal note announcing some good news.

7. Write a note to accompany a Christmas gift which you send to a friend.

8. Write a note asking a person to contribute money to some good cause.

9. Write to some noted man, asking for his autograph.

10. Write a note commending some book which you have recently read.

11. Apply for a situation as clerk, book-keeper, or teacher. State briefly your qualifications.

HOW TO SAVE TIME.

1. Come to school with a definite plan of work for the day.

2. Never permit a partially prepared lesson to pass.

3. Bear down hard on the essential points of the lesson.

4. Don't talk too much yourself.

5. Take plenty of time for assigning the next lesson.

6. Follow your programme to the letter. Never allow a recitation to run over time.

7. Require neat work on slates and on the black-board.

8. Keep your pupils so busily engaged at their work that they will have no time for mischief-making.

9. Be careful to have the right temperature and the room properly ventilated all the time.

10. Have method in calling and dismissing classes; in passing to and fro from the board, and in dismissals for noon and other intermissions.—*Ex.*

A GOOD KIND OF TRAINING.

I visited a room whose school housekeeping is done by the children in relays of four. They have been carefully trained by the teacher to do a definite number of things each day, and to watch for extras. These duties are to be done promptly, willingly, and thoroughly, without reminder from the teacher. Faithful service for the week is rewarded with an earlier dismissal of the four on Friday afternoon. Each new four welcome their turn to serve.—*American Primary Teacher.*

THE LIBRARY AS A TEACHER.

The primary school is not the only school in which busy work is profitable. In almost every school there are odd and ends of time which have no specified work, or there are pupils for whom the work of the average pupil does not furnish sufficient employment. There are very few pupils who spend their long winter evenings profitably. All have some spare time every week, which they can devote to reading.

For all circumstances like these, the school library is a great helper. It becomes an assistant teacher for many hours of school time, and an auxiliary teacher for many hours outside of school. More than this, its teachings are in line with the work of the school; for everything that is put into the school library may be read profitably by the pupil who will read it. Much also that is found in the library is in line with the work being done in the text books and serves to supplement it. No better assistant teacher can be found than a well selected school library.—*Oklahoma School Herald.*

SPELLING EXERCISE.

Pleurisy; erroneous; discernible; procedure; occurrence; alleged; excellency; facetious; embarrass; incessant; autopsy; heresy; interfering; noticeable; amateur; appellate; corroborate; acquittal; acceptable; palisade; discrepancy; parallel.

WHO SAID IT?

Name the authors of the following sayings:

1. There is no such word as fail.
2. Man wants but little here below.
3. Coming events cast their shadows before.
4. God's mills grind slow but sure.
5. The child is father to the man.
6. Trip the light fantastic toe.
7. God tempers the wind to the shorn lamb.
8. Laugh and grow fat.

[Answers next month.]

PRIMARY LANGUAGE WORK.

Fill the blanks in the sentences below with words chosen from this list: rises, seen, lays, rode, rung, sitting, lies, setting, rowed, their's, those, saw, me, I, would, should, shall, theirs, could.

1. Carlo — quietly on the grass.
 2. John is — by him.
 3. The school bell has —.
 4. John — and starts away.
 5. Have you — the new bridge?
 6. I — over it on the car and I — a boat under it.
 7. I hope that I — have a ride too.
 8. Father said that I —, if I — not be tardy for a month.
 9. Did you see — boys?
 10. Yes, I — them.
 11. They wanted Willie and — to play ball.
 12. We played with my bat, after — was broken.
- American Journal of Education.*

NATURE STUDY SPELLING.

Make a list of names of domestic and wild animals of your locality, and learn to spell them. Noted wild animals of other localities. The following exercises are suggestive.

1. Lead pupils to understand the meaning of "animal." In a restricted sense it means a beast, and many persons never learn its broader meaning.
2. What is a quadruped? Make a list of quadrupeds.
3. What is a bird? Make a list of birds.
4. What is a fowl? Make a list of fowls.
5. What is a fish? Make a list of fishes.
6. What is a reptile? Make a list of reptiles.
7. What is a mollusk? Make a list of mollusks.
8. What is an insect? Make a list of insects.
9. What is a domestic animal? Make a list of domestic animals.—*Practical Education.*

KINDERGARTEN AND PRIMARY DEPARTMENT.**PLEA FOR THE "LITTLE ONES" IN THE COUNTRY SECTION.**

I am very glad indeed, to see this Kindergarten column opened in the REVIEW, and I have been thinking that through it, we, Kindergarten and Primary teachers, might help the little folks in the country sections.

The country teacher has from four to seven, eight or nine grades. How little time she has for the children who have all their lives been running and playing and living the free, beautiful out-door life that most of us so fondly remember, and who are suddenly one bright summer day shut up within the four walls of a country school room!

I know two little people, a boy and a girl, respectively seven and five years of age, who in August began their school life. In their home they examine the flowers, they counted the pieces in the nasturtium's dress, and the stamens inside; they take a lively interest in caterpillar and butterfly life, and know by observation the habits of some of the birds, etc.; they have their kindergarten "sticks," out of which they make ladders, hoes, rakes, houses, barns, etc. Now those two little ones have two miles to trudge to school, and although their teacher is an exceptionally bright, intelligent, young girl, yet how little time she has to give to those children, excepting to hear their reading and spelling and attend to their arithmetic. If she only knew how to use some of our cheapest kindergarten material, how busy the little fingers would be and how happy it would make the children to continue the sweet, intelligent home life in the school.

Then I met another child who also started for school in August. Poor little heathen! He hardly knew there was a God—in fact, though smart enough at tricks, he seemed to know nothing. Imagine the world of beauty it would bring into that child's life, could his teacher get some idea of our kindergarten tools, if we may so call them, and without taking much of her own time, lead him to use them.

Will not some of our Kindergarten and Primary teachers who enjoy the blessed privileges of knowing something of the educational value of the kindergarten material, come forward with some hints, some suggestions, and some really practical remarks as to how the country teacher can with little expense wisely introduce the same among her younger classes.

Dartmouth, N. S.

M. A. HAMILTON.

Miss Josephine Howe, Principal of the Kindergarten Department of the Blind School, Halifax, has gone to

Boston and other cities of the New England States to visit Blind Schools and Kindergarten and to observe the results of the Fletcher System of teaching music. Miss Callanan, her assistant, fills her place in her absence. Both ladies are graduates of the Dartmouth Kindergarten Training Class.

FABLES FOR THE LITTLE ONES.

Upon the board write a list of words the children may be in doubt about spelling. Then read the fable to them and ask them to write it.

Little ones of six or seven years of age can write these fables as readily as, "I see a cat."

THE FOX AND THE GRAPES.

fox	high	jumped	said	them
grapes	vine	could	want	sour

A fox saw some grapes.

They were on a high vine.

The fox jumped and jumped.

He could not get them.

At last the fox said: "I do not want them. They are sour grapes."

THE FROG AND THE OX.

ox	drink	killed	wished	burst
brook	stepped	another	puffed	happy

An ox came to a brook to drink.

The ox stepped on a frog and killed it.

Another frog wished to be as big as an ox.

She puffed and puffed and at last she burst.

It is best to be happy as we are.

THE CAT AND THE BIRDS.

some	birds	were	must	coat
told	sick	said	about	cure

Some one told the cat that the birds were sick.

The cat said, "I must go and see about this."

So he put on his coat and hat and took some pills in a box.

Then he went to see the birds.

"I hear you are sick," said the cat. "I have come to cure you."

"O, O," said the birds, "We can get well without you. You will not cure us. You came to eat us. We know you, old cat."—*American Primary Teacher.*

LANGUAGE ALIVE.

Send half of the class to the board and tell them all to draw a picture of a ball, and write five statements and five questions about it. Then let them draw a picture of something they saw on the dinner table, and write all they know about it.

Let the boys draw a picture of a kite, the girls a picture of a doll, and tell of what material each is made. Insist on rapid sketches; pay attention to capital letters and punctuation marks.

Let lively criticism follow as pupils read work. Try it on a dull day, the results will surprise you.—*Primary Education.*

NATURE QUESTIONS—WATER.

1. Where does the water in the brook and river come from?
2. Where does it go?
3. In what direction must a brook or river flow? Why?
4. What do we mean by the slope of the land?
5. Why are some brooks and rivers rapid, others slow?
6. Why do brooks and rivers wind about?
7. Is the land drained or watered by a brook or river?
8. In what portion of a basin must a brook or river make its bed?
9. Do brooks wind more in level or hilly countries? Why?
10. Which flows more rapidly, straight or winding brooks? Why?
11. How much land does a brook or river drain?
12. What causes brooks and rivers to overflow their banks?
13. Read the story of "The Leak in the Dyke."
14. How many slopes must every brook or river basin have? Why?
15. What would be the result if the earth's surface were level?
16. Where are brooks and rivers generally the widest?
17. How do brooks and rivers get their water during dry seasons?
18. Where is the greater quantity of water, in the banks or bed?
19. Which holds moisture longer, sand or loam?
20. Why don't rains fill the soil? What becomes of the water?—*Normal Instructor.*

ONE WAY OF TREATING TEMPER.

We were one day greatly amazed to find a little friend of 3 years, a sweet, lovable child, as we had always seen her, upon the floor in a violent fit of passion, screaming, kicking, and pulling her own hair, holding her chubby, dimpled fists before her tear-filled eyes and redoubling her screams at every hank of golden filament. Her wise and lovely mother sat beside her, sewing and softly humming a tune the child loved, apparently unconscious of the excitement, and silently checked our spontaneous attempts at conciliation, an attempt violently resented by the unreasoning child. This, I learned, was not her first tantrum, and, as formerly, originated in a failure to receive desired and immediate personal attention. Various corrections had been previously tried, but wholly without cure. Now during two full hours the demonstrations continued, utterly unheeded, till a sleep of exhaustion succeeded, which lasted quite as long. When the blue eyes again opened they had a strange expression of inquiry, then a shade of apparent memory; a frown and a kick followed, but, like her very presence, all were ignored. A long season of reflection then followed after which she crept from her cradle and with a smile of cherubic sweetness presented herself at her mother's side for a kiss, which was cordially given with the usual caress and the naughtiness of the afternoon was never alluded to by mother or child, nor did that temper ever again manifest itself.—*Ex.*

CURRENT EVENTS.

Great Britain and Germany have formed an alliance to maintain the territorial integrity of China and keep Chinese ports open. This alliance between the two great Teutonic empires is, perhaps, the most important event that has yet arisen from the situation of affairs in China.

The arrival of General von Waldersee, the German officer who is to command the allied forces in China, and the opening of negotiations for peace, are the chief events that have taken place in Northern China during the month.

Pao Ting Fu, the capital of the province of Chi Li, was occupied by the allies on October 17. It is a city of considerable size, and contains some celebrated temples, in one of which there is an idol with forty-two arms.

In Southern China there is a formidable revolution against the Manchu dynasty, at the head of which movement is the reformer, Sun Yat Sen. Though Sun is thought to be friendly to foreigners, and imbued with western ideas, the situation is considered serious.

Embarking secretly, for fear of his own people, ex-President Kruger has sailed on a Dutch warship for Europe. He will not be allowed to carry on any plots against the British, and will look in vain for any practical assistance from the European governments.

Boer aggressions still continue; but the enemy is now scattered and must soon yield to a vigorous police, which will be established throughout the newly annexed territories under General Baden-Powell.

Prince Christian Victor of Schleswig-Holstein, an officer in the British service, and a grandson of Queen Victoria, died of enteric fever at Pretoria.

On the morning of the first day of November, the steamship "Idaho" arrived at Halifax, bringing back a part of the first contingent of Canadian volunteers from South Africa. A grand demonstration of welcome awaited them, the principal feature of which was a religious service of thanksgiving and the singing of *Te Deum* by the troops. In every city along the line of their route they met with most enthusiastic popular demonstrations, and the scenes at the celebration of the relief of Ladysmith were outdone in the reception of the returned heroes of Paardeberg. The remainder of the Royal Canadian regiment has sailed from Cape Town for home.

From Australia and New Zealand comes the proposal that the Imperial government shall fix a date for rejoicings throughout the empire on the close of the South African war.

Prof. Max Mueller, of Oxford University, one of the world's most eminent scholars, distinguished for his studies in philology and Oriental literature, died Oct. 28th. He was of German birth but a citizen of England.

The presidential election in the United States on Tuesday, Nov. 6th, resulted in the return of President McKinley, republican, for a second term, and Vice-

president Roosevelt, late governor of New York, by a large majority. The house of representatives has also a large republican majority.

The Dominion elections on Wednesday, Nov. 7th, resulted in the return of the Laurier (liberal) government by a large majority. Quebec, New Brunswick, Nova Scotia, Prince Edward Island, the North West Territories gave the liberals large majorities. (In Quebec the proportion is seven liberals to one liberal-conservative). Ontario, Manitoba, British Columbia gave a considerable liberal-conservative majority. Every member of the government was returned, but the opposition leaders, Sir Charles Tupper, Geo. E. Foster, Hugh John Macdonald, met defeat.

Wonderful discoveries and inventions mark this closing year of a wonderful century. Not the least of these is the discovery of a new anesthetic, called eucaine, by the use of which surgical operations are rendered painless while the patient remains conscious. The preparation is said to be free from the dangers which attend the use of cocaine.

Italian scientists have recently had great success in the study of the causes of yellow fever, malaria and consumption. It was an Italian physician in Montevideo who discovered the microbe of yellow fever; and now another Italian claims from the Mexican government the reward of \$100,000 offered for a remedy for the disease. To an Italian student of the last century belongs the honor of first suggesting that mosquitoes were the means of conveying malaria to man; and an Italian of the present day has identified the fatal microbe of the disease, as well as the particular species of mosquito in which it completes its round of life, and by the sting of which it is communicated to the human victim. Curiously, it is now surmised that ancient dwellings with high walls, in which there were no windows, were so built to guard against the attacks of mosquitoes, the insect never flying high. Improvements in medicine have sensibly diminished the mortality in Italy, as well as in other countries, from diphtheria, small-pox and typhoid; and an Italian has discovered a remedy, not hurtful to the lungs, which, introduced into them, destroys the microbe of consumption.

Molten wood is a new invention which comes from the forests of France. The substance is hard, but can be shaped and polished at will. It is impervious to water and acids, and is a perfect non-conductor of electricity. Great results are expected from this discovery.

Count Ferdinand de Zeppelin has made another successful trial of his airship, which is a dirigible balloon of about 400 feet in length. Professor A. Graham Bell, of telephone fame, is about returning to his laboratory in Nova Scotia, to continue his experiments in aerial navigation. He believes the problem will be solved, but not by the use of balloons, which at best, can only be of practical use in light currents of air.

A number of Italian railways will shortly adopt the electric system. A third conducting rail will be laid alongside the main rails and a single car, or trains of two or three cars, will run at frequent intervals.

A noiseless street car wheel has been introduced on Chicago street cars.

It is announced that the metric system of measurement will be adopted in Russia.

Marconi, the inventor of wireless telegraphy, has made an improvement in his system, and tall poles are no longer required. He has recently telegraphed sixty miles with a cylinder four feet high.

A new railway has been opened from Quebec to Parry Sound. It will be chiefly used in bringing grain to Quebec for shipment.

Telegraph communication with the Straits of Belle Isle is now practically completed, and a signal station will be erected on the island.

It is rumored that a party in Brazil will begin a revolution for the re-establishment of the monarchy.

A fierce tribal revolt has broken out in Morocco.

The new census of the United States gives the total population of the country, including Alaska and Hawaii as 76,295,220; an increase of over 20 per cent in the last ten years.

The six Australian states are now engaged in dividing their respective territories into federal electorates. From some one of these electoral districts in New South Wales, the federal area upon which the capital of the Commonwealth is to be built will have to be cut off, after the Federal Parliament has decided upon the site. The government has invited the premiers of Canada and Cape Colony to be present at the inauguration of the Commonwealth.

The betrothal of the Queen of the Netherlands to the Duke of Mecklenburg-Schwerin is announced.

At a special meeting of the colonial council, a resolution was adopted protesting against the proposed sale of the Danish West Indies to the United States. It was generally supposed that the sentiment of the inhabitants was in favor of annexation, but this action of their chief legislative body dispels the illusion.

There is renewed activity on the part of the insurgents in the Philippines.

It is reported that the Fiji government is taking steps to federate with New Zealand. The Fiji Islands are over two hundred in number, and about eighty of them are inhabited. The total population is estimated at about 125,000, of whom perhaps 4000 are Europeans.

Sian, or Si Ngan, the ancient capital of China, and the present place of refuge of the court, was abandoned eight centuries before the Christian era. It is believed by those familiar with Chinese character and superstition that the imperial family will never again occupy the Forbidden City at Peking, since it has been profaned by the intrusion of foreigners. The triumphant march of the allied troops through its sacred halls was intended and accepted as a desecration. Si Ngan has never been so desecrated; and from its remote situation is comparatively safe from such a punishment. It has a large trade with Central Asia. Most of its inhabitants are Mohammedans, but they have always been loyal to the Chinese throne.

Teachers' Conventions.**VICTORIA COUNTY, N. B., TEACHERS' INSTITUTE.**

The Victoria County, N. B., Teachers' Institute, met at Grand Falls, September 27th and 28th, Inspector Meagher, president, in the chair. The following officers were elected: Miss Bessie Scott, president; Arthur H. Shea, vice-president; Miss Alice Everett, secretary-treasurer; Mr. Hayward and Miss Wood, additional members of the executive.

Mr. Hayward, Principal of the Grand Falls Superior School, read an interesting paper on "Supplementary Work." He advocated supplementary work in all subjects. In arithmetic the teacher should frame a set of questions, especially adapted to the every day work of the community where he teaches; extra reading may be given on current events, the *Family Herald* is an excellent paper, in Geography from stories on travel, etc. "Object Teaching" was the subject of a paper read by Miss Scott. It should form the basis of all instruction that is given throughout the school. It should be given with the purpose of bringing the children into contact with Nature in every direction, a sort of network between their thoughts and the world around. Study the object well beforehand, with the purpose of seeing how much the object itself can be made to tell, that the children may understand and learn lessons from it, not from the teacher's talk about it. Do not give definitions and get the children to repeat them. Rather get them to make definitions for themselves, so that they shall understand them.

One of the most interesting papers read at the Institute was one on "Birds," by Mr. Thos. Rogers. It dealt largely with the ornithology of New Brunswick, of which Mr. Rogers has an extensive knowledge. He explained how the most of our common birds may easily be recognized, their song, shape of bill, make of feet, noise of their wings in flight, etc. He advised that more instruction in bird life be given in our schools, stating that many of our most common birds are unknown by most people. He explained the valuable use of birds in the economy of nature, and strongly advised greater protection for them. "A Defect Arising from our Graded System and its Remedy," was very ably dealt with by Inspector F. B. Meagher, M. A. Our present graded system produces better average results, but its cardinal defect is that the bright pupils are in many cases compelled to keep pace with the slow and dull, and are thus apt to lose heart in their work. Individual teaching is the only remedy for this state of affairs. When the class work has been completed by the bright pupils, additional exercises may be given them at which they may work by themselves with occasional direction by the teacher, leaving the latter free to pay particular attention to the less capable and weak pupils. Along a higher plane the honor course in colleges is an example of how bright students may be encouraged in their particular bents without detracting from the attention paid to the average student. Tact and patience must be the teacher's motto in conducting individual work, as so many side issues are connected with its successful

treatment, in which the study of character is by no means an inconsiderable part.

The session of Friday afternoon was adjourned that the teachers might make an excursion to the Falls.

A public meeting was held in Wilson's Hall on Friday evening. The Inspector took the chair and opened with a short address, in his easy graceful way, on the objects of the meeting. He was followed by Mr. Day, the popular secretary. The Chief Superintendent, Dr. Inch, was most happy in his remarks, and during his interesting address was listened to with rapt attention. He spoke of the changes in the school law and course of instruction, and also of the wonderful improvements that have taken place in the present century in our schools. Higher salaries would keep teachers longer in the profession. He spoke on many other topics of vital interest to teachers and ratepayers. COM.

WEST CORNWALLIS, N. S., TEACHERS' INSTITUTE.

The teachers of Berwick and the vicinity have formed an association for the mutual improvement of its members by the discussion of questions relating to the profession of teaching. The second meeting was held in the schoolroom, Berwick, October 6th, when a constitution was adopted and officers elected for the ensuing year. Mr. Willis Margeson, principal of Waterville school, was elected president, and Miss Lottie Chute, teacher of South Berwick school, secretary. An address on "How to Teach Geography," was given by the president, Mr. Margeson, and the question was discussed by the meeting.

The half hour for questions by members was taken up with a discussion on "How to find Time to Teach all the Classes in a Miscellaneous School." One suggestion was, that part of the work for upper grades be written, especially in such subjects as geography, history and geometry.

A letter was read from Prof. W. C. Murray, Dalhousie College, suggesting a course of pedagogical reading to be taken up by the association.

The meetings are held fortnightly on Fridays at 3.45 p. m., in the Berwick schoolroom. All the members take an active interest in the discussions, and the association promises to be of much benefit to the teachers attending. COM.

Berwick, October 7th.

KENT COUNTY INSTITUTE.

The eighteenth annual meeting of the Kent County Teachers' Institute was held at Richibucto, on the 4th and 5th October, Inspector Geo. Smith in the chair. The attendance was one of the largest on record of this institute, and the proceedings were conducted with much spirit and interest. A paper was read by Mr. R. G. Girvan on the Teacher's Self-improvement, in which was urged the importance of giving time for preparation for school work, reading regularly good English literature, and the formation of reading clubs for this purpose. G. U. Hay gave a talk on Nature-work, and an illustrative lesson in the fields soon after to the members of the institute on the same subject. Mr. C. H. Cowperthwaite, principal of the grammar school, read a

paper on School Government, which produced an excellent impression. The main points emphasized in the paper were to maintain the pupils' interest in and out of school, to get him to do his work faithfully, and to foster a spirit of cheerful co-operation in all the school duties. Mr. A. Daigle treated of the deficiencies of the series of French readers in use in the schools. Miss Susie A. Daley gave an excellent lesson on the effects of alcohol. These papers called for animated discussions in which many members of the institute took part.

The public educational meeting on Thursday evening, Oct. 4th, in the Temperance Hall, Richibucto, showed the hearty interest of the people in education. The hall, tastefully decorated with bunting and autumn leaves, was crowded to the doors. Addresses were delivered by Inspector Smith, G. U. Hay, Rev. A. D. McLeod and Geo. V. McInerney, M. P., and a fine musical programme was carried out.

The following officers were elected: President, G. A. Coates; vice-president, Miss Mary Chrystal; sec.-treas., R. G. Girvan; additional members of the executive, Misses M. Buckley and K. Keswick. It was decided to hold the next meeting at Harcourt.

UNITED INSTITUTE AT BATHURST.

Three counties of New Brunswick—Northumberland, Gloucester, Restigouche—were represented in the united Teachers' Institute which met at Bathurst on the 11th and 12th October. The attendance consisted of about 80 teachers, the majority of whom were from Gloucester county. The report of a case of small-pox in Bathurst, which was entirely groundless, served to keep a good many away. Inspector Mersereau made an opening address, suggesting many excellent ways by which such an institute could help the teachers. Principal E. L. O'Brien welcomed the teachers to Bathurst. The following officers were elected: Mr. E. L. O'Brien, president; Miss Eugenie Hache, vice-president; Mr. G. K. McNaughton, secretary-treasurer; Miss L. H. Garrett, assistant secretary-treasurer.

A paper on the "First Steps in Arithmetic," prepared by R. B. Masterton, of the Dalhousie Superior School, was read. It insisted on a thorough training in the fundamentals. Nothing should be committed to memory without a clear understanding of the process. A combined nature and literature lesson was given to a primary class by Sister Stephen, of the Convent School, who was very successful in presenting an excellent object lesson. Mr. G. U. Hay gave a suggestive lesson on Nature-study teaching, especially plants, in grades three, four and five of ungraded schools.

On Thursday evening a fine programme of addresses, readings and music was carried out in the Masonic Hall, which was tastefully decorated and crowded with a large and attentive audience. Addresses were delivered by the chairman, Mr. E. L. O'Brien, G. U. Hay and Inspector Mersereau. The latter, in the course of a very instructive survey of educational results in the three counties of his inspectorate during the past twenty-five years, said that there were only ten districts now without schools—five in Gloucester, three in Northumberland and two in Restigouche.

The first paper on Friday, "How our Schools are supplying the Needs of Acadian Pupils," was read by Mr. P. P. Murray, of Caraquet, in French, and the animated discussion which followed was carried on both in French and English. It was held that it was a mistake to teach Acadian children to read English during their first two years at school; that French readers should be substituted instead of the unintelligible translations of English ones; and that French primary texts in arithmetic and history should be prescribed. The point was strongly emphasized that the French pupil leaves school with no training in literature and no desire to read anything, either in French or English. The French teachers, who took part in the discussion, Mr. Murray, Miss R. Lauza Cormier, Mr. Alfred J. Witzell and others, presented the case of the French pupil very forcibly, ideas that were concurred in by President O'Brien, Inspector Mersereau and Mr. Hay, in respect to many points in the paper. Inspector Mersereau thought there would be difficulties in the way of translating arithmetic and other texts into French.

At the conclusion of this discussion the Institute adjourned to the Convent in the Village, to listen to a very instructive lesson in reading by Sister DeLourd as taught by the synthetic system.

At the afternoon session Miss Ina Mersereau read a very interesting and instructive paper on History, in which were considered the advantages of the study of prominent men and events, the influence on the memory, reason and imagination, and the importance of studying local, Canadian and British history.

The following officers were elected for Northumberland:—Mr. Geo. Wathen, Doaktown, president; Miss O'Brien of Derby, vice-president; R. W. Alward of Chatham, secretary treasurer; Miss Loggie and Miss Menzies, additional members of executive. It was decided to hold the next meeting of Northumberland County Institute in the Grammar school building, Chatham.

For Gloucester: E. L. O'Brien, President; R. Lauza Cormier, Vice-president; G. K. McNaughton, Sec'y-Treasurer; J. Alfred Witzell, Eugenie Hache, additional members of executive. Caraquet was decided upon for the next place of meeting.

The officers of the Restigouche Institute remain the same as last year.

[Reports of York and Westmorland Teachers' Institutes will appear in next number.]

Pouring out knowledge is not teaching.

Hearing lessons is not teaching.

Hammering a task in is not teaching.

Lecturing clearly is not teaching.

No mere applying of knowledge is teaching.

Teaching is getting at the heart and mind, so that the learner begins to value learning, and to believe learning possible in his own case.—Edward Thring.

I have taken the REVIEW ever since it was published and have lost but one number. I would not be without it, and would not part with the back numbers. S.

SCHOOL AND COLLEGE.

At the Paris exhibition, in the room devoted to schools and education, can be seen a photograph of the King street school, St. Stephen, showing most distinctly the scholars and their talented teacher, Miss Daisy Hanson.—*Courier*.

Dr. D. J. McLeod, chief superintendent of education in P. E. Island, intends resigning his position to engage in business at Sydney, C. B.

Mr. G. H. Cain, principal of the Milton school, Yarmouth, N. S., has resigned to take the position of teacher of mathematics in Everett, Mass., school.

The REVIEW extends its congratulations to Inspector G. J. McCormack, of P. E. Island, on his recent marriage.

Guy J. McAdam, of Albert Superior School, has been appointed to the vice-principalship of the Sussex grammar school to succeed Mr. D. W. Hamilton who resigned to re-enter the University of New Brunswick to complete his course. Mr. McAdam, although young, has already an excellent record as teacher, and recently obtained his grammar school license with exceptionally high marks. Mr. T. J. Allen, of Florenceville, has taken the place of Mr. McAdam, at Albert.

Avard D. Giffin, Louis Head, Shelburne Co., N. S., teacher, a late student of the Maritime Business College, Halifax, is in charge of the business department of the Horton Academy.

H. J. Stech, late Principal of the school at Port Greville, Cumberland Co., N. S., at the close of the school year, entered the Maritime Business College, Halifax, and was graduated on September 30, receiving the diploma for competency as a book-keeper, from the Business Educators' Association of Canada "with honors." Mr. Stech previously had business experience, and this coupled with his success as a teacher, has secured for him a position on the staff of the Maritime Business College.

Principal John N. Creed of the County Academy at Annapolis Royal, vacated his position recently without previous notice to the Board of Commissioners. He is now in the United States. The Commissioners were fortunate in securing Mr. Clarke M. Gormley, Class A Sc., of Wolfville, to fill the position thus vacated. Mr. Gormley is a graduate of Acadia College, and is a teacher of experience. It is believed that this Academy will maintain its former efficiency under its new principal.

Principal H. B. Hogg, of Digby County Academy, has recently lost his wife by death. Within the past eight months his two youngest children have also died. Principal Hogg has been successful in his management of this Academy, and is highly esteemed, not only by his fellow-teachers, but by the community in general. He has the sincere sympathy of all in his severe bereavement.

Inspector Mersereau will visit the ungraded schools in Northumberland County during the remainder of this term.

The new Superior school at Blackville, N. B., is to be opened with appropriate ceremonies on the 14th inst.

'ROUND TABLE TALKS.

M. S. E.—Please explain the line from Kingsley's Song of the Three Fishers, "And the night-rack came rolling up ragged and brown."

Webster defines 'rack,' "Properly, moisture, dampness; hence, thin, flying, broken clouds," and quotes Bacon, "The winds in the upper region, which move the clouds above, which we call the rack." The line means that ragged brown clouds rolled up at nightfall.

N. F.—Are the maple leaves, herewith sent, named correctly.

The Rock or Sugar Maple, the Red and the Mountain Maple leaves are rightly named. The other two are not. They are unusual forms of red maple leaves. Your study of the leaves this fall will enable you to attack the problem successfully next spring.

S. (a) Please explain the terms "hereditary monarchy," "constitutional monarchy," and "limited monarchy." (b) Who gained the victory of Fashoda?

(a) Consult a dictionary or history.

(b) On July 10th, 1898, Capt. Marchand with a French force raised the French flag over Fashoda, on the left bank of the Upper Nile, two months previous to Sir Herbert Kitchener's victory over the Kalifa at Omdurman. This was looked upon as a direct violation of the rights of Egypt and Great Britain, which regarded the whole of the Upper Nile country as under the sphere of British influence. A conflict was averted on the English and French governments settling peaceably the matter in dispute. The "victory" (rather an incident) was a diplomatic one.

THE TEACHER AS A LOVER. Above everything else, the true teacher is a lover—a lover of children, a lover of mankind, a lover of his brother and sister teachers, a lover of learning, a lover of all things true, beautiful, and good. Only a heart full of love, running over with kindness, can tip and tinge all work with the charity which "never faileth."

Unless you love people, you will not teach them; unless you love them, your instruction rolls off like peas from an iron-clad. If you love them, they can no more resist your teaching than the schoolboy's snow man can resist the rays of the sun. All pupils, may not be worthy of your love, but you must love them for your own sake; your best intention is your own best cultivation, both of head and heart, and upon it. If you love deeply, you may teach deeply; but shallow love, shallow teaching.—*Southern School Journal*.

RECENT BOOKS.

The four books under our hand, which embrace some recent novels published, will certainly not carry their "tired readers to the Islands of the Blest;" but Mr. Eden Phillpotts, in "Sons of the Morning,"¹ does give us a glimpse of that region now and then. In spite of the long drawn out complication of the heroine's two loves, and the rather dreary conclusion, Mr. Phillpotts' story will be a delight to all who care for fine descriptions of scenery, made charming by beautiful English, keen character drawing, and humor of the style of Mr. Thomas Hardy's earlier stories. Indeed, the talk of Gaffer Ash and Jonah Crampton recalls at once the delicious speeches of the farm laborers and shepherds of Mr. Hardy's Wessex. "I've always thanked God," says Gaffer Ash, "as I was born so humble that I could live through my days without never being called 'pon to say what I think o' things in general, an' the men an' women round about." " 'Tis the chaps as have got to talk I be sorry for—the public warriors and parliament men, and such like. They sweat o' nights, I reckon; for they be 'feared to talk now an' again, I'll wager, an' be still worse feared to hold their peace." We could easily spare some of Mark Endicott's sermons to make room for more of Ash's wisdom. The merits of "Sons of the Morning" deserve more comment than we have space for, and we heartily recommend our readers to find them out for themselves.

Readers of Lucas Malet's "Counsel of Perfection" will be disappointed to find its author descending to such subjects as that she handles in "The Gateless Barrier."² With the same beautiful English (to be expected from Charles Kingsley's daughter), and more than equal skill in the construction of the story and drawing of character, there is a gulf between the two books as regards moral tone. The preface, a quotation from Lafcadio Hearn, warns us that we are to find the book not explanatory, but suggestive. We are sorry to say that it is suggestive, in the disagreeable sense of the word. The story is as follows: Lawrence Rivers, an Englishman of good family, a small lion in literary circles, has married in America, and is living there when summoned to the deathbed of his uncle, whose heir he is. In the old family mansion, while he waits for his uncle's death, there appears to him a ghost lady, with whom he at once falls in love. He finds that this "Fairy Lady," as he calls her, is the spirit of the betrothed of his great uncle and namesake who was killed at Trafalgar. He himself is the re-incarnation of this uncle, and he only has power to call the girl's spirit into sight. He strives to use his power still further, that she, too, may return to material life; and it is her sense of the wrong, not his, that makes him desist. It is an artistic as well as moral blemish, we think, that after this point has been reached, the character of the wife is shown us in its most unfavorable aspect, as if to justify the hero's infidelity. The beauty of the writing and the skill in story telling is of such a high order that we regret to have to agree with the reviewer of the book in the *London Spectator*, who says: "To our feeling, Lucas Malet, in this book, confounds the love which is immortal, eternal and ennobling with the human passion, which, though natural and necessary, is none of these things. The human passion of the live man for the spirit is not natural or necessary, and it is difficult for the

¹ *SONS OF THE MORNING*, by Eden Phillpotts.

² *THE GATELESS BARRIER*, by Lucas Malet. Cloth, \$1.25; paper, 75 cents.

W. J. Gage & Co. (Limited), Toronto.

most clever pen to make it even tolerable as an object for fiction.

In "A Daughter of Witches"¹ the inherited power for evil of Vashti Lansing uses the modern instrument of hypnotic suggestion, thus bringing witchcraft up to date. The results are dismal enough, for Vashti brings insanity on her husband and paralysis on herself. Nevertheless, the impression left on the reader of life in the New England Village is rather pleasant than otherwise; and the courtship of Temperance Tribbey and Nathan Peck, and the pranks of Sally, a kind of white Topsy, give the necessary relief to the tragedy.

Mr. Max Pemberton's latest book² has for its theme that favorite old one of the gallant knight rescuing the damsel in distress. In this case the lady is a real princess, a Russian princess, shut up in a real palace, and the hero is an English traveller of noble birth, who has fallen in love with the heroine at the gaming table, and followed her to Moscow, whither she has been banished on account of her gambling propensities, and where she is under police surveillance. When it is added that the princess' chief enemy is found dead in her house, and that she is sent to the Caucasus in charge of a Russian lover who is also beloved of her jealous sister, it will be obvious that the hero has plenty of exciting adventure before him. Mr. Pemberton's women are never quite convincing, but his storytelling is spirited and holds one's interest to the last page.

E. R.

The history of American Literature³ is presented in this work in a manner so charming and interesting that no encouragement, further than the definite systematic suggestions given, is needed to lead the student or general reader to turn to the writers themselves and take them at first hand. The greater part of the book is devoted to the principal writers, but the others have not been neglected. Although the book deals largely in biography, it has a decided literary favor. No one can read its pages without sharing the author's opinion that American literature is one branch of the greater English literature, a part of the life of a great race as well as of a great nation.

There is no more delightful and sympathetic student of nature than John Burroughs. One feels, after reading a book of his, all the freshness and vigor of a walk through the fields and woods, with the added desire to become better acquainted with the ways of woodfolk, and a greater measure of love and respect for them. In his latest book⁴ we have the results of his own observations on the small fur-bearing animals met with in the New England woods and waters, nearly all of which are found with us. Everyone knows the squirrels, rabbits, muskrat, fox, weasel, mink, porcupine, and others; but every reader of this charming book will be eager to get to the woods again to see them as Burroughs sees them, to know them and cultivate friendly relations with them as he does. Everyone

¹ *A DAUGHTER OF WITCHES*. Joanna E. Wood.

² *THE FOOTSTEPS OF A THRONE*, by Max Pemberton. W. J. Gage & Co. (Limited), Toronto.

³ *A SHORT HISTORY OF AMERICAN LITERATURE*. Designed primarily for use in schools and colleges. By Walter C. Bronson, A.M., Professor of English Literature in Brown University. Cloth; 12 mo. Pages, 474. Price, 80 cents. D. C. Heath & Co., publishers, Boston, Mass.

⁴ *SQUIRRELS AND OTHER FUR-BEARERS*. By John Burroughs. With fifteen illustrations in colors after Audubon, and a frontispiece (of the red fox) from life. Cloth. Pages, 149. Price \$1. Houghton, Mifflin & Co., Boston.

will be able to supplement the bright anecdotes of the book with experiences of his own. Teachers should read this book and put it into the hands of boys, who will be ready then to leave the gun at home, and find endless fun and instruction in watching John Burroughs' pets. To add an additional charm to the spirited pen pictures, the book is admirably illustrated, with the animals represented in their native haunts.

In German Ballads and Lyrics¹ we have a book specially designed for English-speaking students. The selections are chiefly from the poems of Goethe, Schiller, Heine, Uhland, Müller, carefully graded according to the maturity of the student, each selection, beginning with those of a narrative, objective character, forming a cycle and helping to shed light on those associated with it.

In Benedix's "Der Prozess"² we have one of the most popular German plays, well adapted for the reading of students after the first year, or for amateur acting.

In Zschokke's "Das Wirtshaus Zu Cransac"³ we have a charming story, easily read by the beginner in German, and abounding in fine portraiture and bright, pleasant description. Like Goldsmith's comedy, "The Mistakes of a Night," it derives its interest from a cause of mistaken identity—an ingenious plot delicately and successfully worked out.

The second series of Lamb's Essays of Elia⁴ is undertaken by the author because of the favorable reception accorded to the first volume. The work has been edited with much care, with an excellent introduction and very copious notes, made fuller, for the benefit of East Indian students, than English students usually require.

¹ GERMAN LYRICS AND BALLADS. Selected and arranged by James T. Hatfield, Professor of German Language and Literature in Northwestern University. Cloth. Pages, 224.

² BENEDIX'S DER PROZESS. Edited with an introduction, notes and vocabulary by Benj. W. Wells, Ph. D.

³ ZSCHOKKE'S DAS WIRTSHAUS ZU CRANSAC. Edited with introduction, notes and vocabulary, with paraphrases for re-translation into German. By Prof. Edward S. Joynes. Pages xii + 115. Price, 30 cents.

In Heath's Modern Language Series. D. C. Heath & Co., publishers, Boston.

⁴ LAMB'S ESSAYS OF ELIA. Second Series. Edited with notes by N. L. Hallward, M.A. (Cantab.) Professor of English Literature, Dacca College; with an Introduction by S. C. Hill, B.A., B.Sc. (Lon.) Pages, 342. Price 2s. 6d. Publishers, Macmillan & Co., London.

BOOKS RECEIVED.

[An extended review will be made at a later date.]

A TEXT-BOOK OF BOOKKEEPING, by Frank Ireson, B.A.; L'AME DE BEETHOVEN, edited by DeV. Payen-payne. Macmillan & Co., London.

WILDERNESS WAYS, by Wm. J. Long; THE BEGINNINGS OF ENGLISH LITERATURE, by Charlton M. Lewis; MARIA STUART, by Profs. Muller and Wenckebach. Ginn & Co., publishers, Boston.

THE ESSENTIALS OF THE ENGLISH SENTENCE, by E. J. MacEwan, M.A.; STUDIES OF ANIMAL LIFE, by three Chicago teachers: Nine numbers of Heath's HOME AND SCHOOL CLASSICS (issued fortnightly). D. C. Heath & Co., publishers, Boston.

THE SCHOOL AND SOCIETY, being three lectures by Prof. John Dewey. The University of Chicago Press. (Received through the kindness of Mr. H. C. Henderson, late of the High School, Fredericton, N. B.)

GREAT ARTISTS. Durer. The Perry Pictures Company, publishers, Malden, Mass.

Other Books and Literary Notes.

With its issue of November 3 the *Army and Navy Gazette*, 3, York Street, London, W. C., published a colored plate showing types of the Canadian Army. Representatives of no less than nine regiments are given in the picture, including the Royal Canadian Regiment, Northwest Mounted Police, Royal Canadian Dragoons, a gunner in the picturesque winter kit of the Royal Canadian Artillery, the 10th Grenadiers, and others. The coloring and grouping of the figures are very striking, and the plate forms a remarkable reminder of the splendid troops of the Dominion which rendered such signal service in the fight for the flag in South Africa.

In Heath's Modern Language Series we have episodes from Dumas's *Monte Christo*. The selection forms an episode of intense dramatic interest, complete in itself, which is calculated to excite and hold the interest of students.

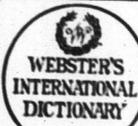
JOHNSON'S PHYSICAL CULTURE, a primary book, with many useful and simple directions on physical culture and care of the health. The simple language and excellent illustrations make it especially useful to parents and primary teachers. (Cloth. Price, 25 cents. B. F. Johnson Publishing Company, Richmond, Virginia).

We have received from Prof. John Davidson, Phil. D., Fredericton, his paper on "The Natural History of Money," re-printed from the *Transactions of the Nova Scotia Institute of Science*.

NOVEMBER MAGAZINES.

In the *Outlook* for October 27th, Dr. Smith, under the title, The Punishment of Peking, tells much that has not heretofore been told about the dramatic and tragic events of the weeks when the world was waiting to hear from the prisoners in Peking. This article is the first in a series which Dr. Smith is writing for *The Outlook* as its Special Commissioner in China. It would be impossible to name a man whose experience and literary work better fit him for such a task. (\$3 a year. The Outlook Company, New York.)... In the *Chautauquan* Mary Sifton Pepper continues her historical sketches of Maids and Matrons of New France, describing the pioneer women of Quebec and the first school in Canada. President Chas. F. Thwing gives us an interesting article on What is the Student in College for? with some suggestive and thoughtful replies from the students themselves... In the numbers of *Littell's Living Age* for October 27 and Nov. 3, the following articles will repay careful perusal: Japan and the New Far East, Fishes and their Meals, The Employments of Women, and the Coming Presidential Election, the latter analyzing the issues of the campaign and forecasting the result.... In the *Atlantic*, Mr. S. M. Crothers' delightful essay on The Gentle Reader and Mr. Everett Tomlinson's Reading for Boys and Girls will find many sympathetic followers as they tell what and how people used to read in the good old times and what they read now. Simon Newcomb's interesting An Astronomer's Friendship, is a vindication of a much abused scientist of the last century... The November *Century*, beginning the magazine's thirty-first year, is the first of two numbers especially noteworthy, not only for the interest of their contents, but for the beauty and abundance of their illustrations. But while the eye will be caught first by the pictorial features of the number, its appeal to the mind is no less strong; for with November the *Century* begins a Year of Romance, in the course of which it will present a remarkable number of short stories by famous writers, with several longer ones, and two or three serials running through six months or more... The readers of *St. Nicholas* will be glad to find in the November number, beginning anew year, the opening pages of

an American serial by John Bennett, author of that popular Shakesperian story, Master Skylark. It is called the Story of Barnaby Lee. Mrs. Joseph Pennell tells how children behaved four centuries ago, and Edward F. Bigelow, in Nature and Science, tells how young foxes behave and how the dodder robs the golden rod; and the doings of wolves, birds and insects are described in illustrated letters "From Sharp-Eyed Girls and Boys.".....The Ladies' Home Journal is a finely illustrated and beautiful number. The stories among which are: The Successors of Mary the First, by Elizabeth Stuart Phelps; Blue River Bear Stories, by the author of When Knighthood was in Flower, and Josiah Allen's wife's fourth visit, will be read with interest and enjoyment. Edward Bok condemns the lack of taste shown in furnishing American homes. (By the Curtis Publishing Company, Philadelphia. One dollar a year; ten cents a copy).



NEW EDITION

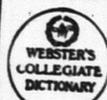


WEBSTER'S INTERNATIONAL DICTIONARY

JUST ISSUED / NEW PLATES THROUGHOUT / NOW ADDED
25,000 ADDITIONAL WORDS
PHRASES AND DEFINITIONS

Prepared under the direct supervision of W. T. Harris, Ph.D., LL.D., United States Commissioner of Education, assisted by a large corps of competent specialists and editors.

Rich Bindings / 2364 Pages / 5000 Illustrations
BETTER THAN EVER FOR SCHOOL & TEACHER



Also Webster's Collegiate Dictionary with Scottish Glossary, etc.
"First class in quality, second class in size."—NICHOLAS MURRAY BUTLER.



Specimen pages, etc., of both books sent on application.
G. & C. MERRIAM CO., Springfield, Mass.

The Century Magazine

"THE LEADING PERIODICAL OF THE WORLD"

Will Make 1901

"A Year of Romance"

BESIDES a great programme of illustrated articles,—a superb panorama of the Rhine—John Bach McMaster's group of articles on Daniel Webster,—color pictures, etc., etc., *The Century* will present, beginning with November, 1900, the first issue of the new volume.

Short Novels and Complete Stories by:

F. Anstey,	Rudyard Kipling,
Mrs. Burnett.	Ian Maclaren,
Geo. W. Cable,	S. Weir Mitchell.
Winston Churchill,	Thomas Nelson Page,
Edwin Ass Dix,	Bertha Runkle.
Hamlin Garland,	Flora Annie Steel,
David Gray,	Frank E. Stockton,
Joel Chandler Harris,	Ruth McEney Stuart,
Bret Harte,	Gen. Lew Wallace,
W. D. Howells.	Charles Dudley Warner,
Henry James,	E. Stuart Phelps Ward.
Sarah Orne Jewett,	Mary E. Wilkins.

"THE HELMET OF NAVARRE"

A great novel, full of life, adventure, and action, the scene laid in France three hundred years ago, began in the August, 1900, *Century*, and will continue for several months in 1901. Critics everywhere are enthusiastic over the opening chapters of this remarkable story. "The author's fame is apparently established with this, her maiden effort," says the *Boston Transcript*. *The Critic* calls it "A remarkable performance."

FREE New Subscribers to *The Century Magazine* who begin with the number for November, 1900, will receive free of charge the three previous numbers, August, September, and October, containing the first chapters of "The Helmet of Navarre," or, if these numbers are entirely exhausted at the time of subscribing, they will receive a pamphlet containing all of the chapters of "The Helmet of Navarre" contained in the three numbers.

Ask for the free numbers when subscribing. \$4.00 a year.

The Century Co., Union Square, New York.

Something New for Girls and Boys.

DURING the past year "St. Nicholas" Magazine, which has been for nearly thirty years the leading children's monthly magazine of the world (and now the only one,) has introduced several new departments which have been extremely attractive and have greatly increased the circulation. One of these is

"NATURE AND SCIENCE,"

"Don't bother me—I'm too busy" is too often the remark from a grown-up person to a child who really wants to know. The editor of "Nature and Science" gives careful attention to every question asked by his young readers, and "We will write to 'St. Nicholas' about it" has become the motto of the department, which contains interesting short articles, beautifully illustrated, telling of four-footed animals, birds, insects, water animals, plants and whatever pertains to Nature.

"ST. NICHOLAS LEAGUE"

is an organization of those who read the magazine (whether subscribers or not), without dues, and it offers prizes each month for the best drawings, photographs, poems, stories, puzzles and puzzle answers. Some of the work sent in by young folks shows surprising talent.

No one who does not see "St. Nicholas" can realize what an interesting magazine it is, and how exquisitely it is illustrated; it is a surprise to young and old. Of literature it contains the choicest, and in art it has never been surpassed by any grown folks' periodical. The new volume begins with November, 1900, and the subscription price is \$3.00 a year. If there are children in your home, you can hardly afford to be without it.

BOYS AND GIRLS who read this advertisement and who wish to find out more about The St. Nicholas League and its system of monthly prizes may address, without cost, The St. Nicholas League, Union Square, New York.

The Century Co., Union Square, New York.

DO NOT WAIT
SEND NOW.

AWARDED GOLD MEDAL AT PARIS EXPOSITION, 1900.

THE PERRY PICTURES.

DO NOT WAIT
SEND NOW.

THE PERRY PICTURES,
Regular Size.
ONE CENT EACH For 25 or More.



THE PERRY ART BOOKS
25 and 35 CENTS
EACH.

ST. CECILIA.

20 to 30 times this size. This picture is only to attract your attention.

Do not wait until just before Christmas, the busiest time in all the year, but **Send 2-cent stamp for our Catalogue to-day**, we can give your order more careful attention if you order **NOW**. Order at once and we can pack the goods and ship them any day in December that you name.

SEND \$1.00 FOR OUR BEAUTIFUL CHRISTMAS GIFT SET, 100 PICTURES.

The Perry Magazine makes an excellent Holiday Gift, and pleases the recipient **TEN TIMES** during the year. Subscribe now for your friend, and we will send the first number whenever you wish.

Beautiful! If you have not seen them you have no adequate idea of the Artistic Merit of

The Perry Pictures--Extra Size.

On paper 10x12. Send your friend 20 for a Holiday Gift. For the present we will give one FREE with every order for 20 of the Extra Size if you refer to this offer (Premium Offer No. 2) when ordering.

**SELECT FROM THIS LIST. PRICE:
FIVE CENTS EACH FOR 5 OR MORE.**

LIST OF SUBJECTS IN THE PERRY PICTURES, EXTRA SIZE.

Ex 1 William Cullen Bryant.	Ex 516 Shepherdess Knitting..... Millet	Ex 886 Pharaoh's Horses..... Herring
Ex 2 Longfellow.	Ex 521 Feeding Her Birds..... Millet	Ex 1020 Christmas Chimes..... Blashfield
Ex 261 Virgin, Infant Jesus and St John Botticelli	Ex 538 Horse's Fair..... Rosa Bonheur	Ex 1031 Hosea..... Sargent
Ex 321 Sistine Madonna (complete)..... Raphael	Ex 575 Song of the Lark..... Breton	Ex 1032 Isaiah..... Sargent
Ex 334 Madonna of the Chair..... Raphael	Ex 609 Madonna and Child..... Dagnan Bouveret	Ex 1033 Prophets..... Sargent
Ex 325 Madonna Granduca..... Raphael	Ex 618 The Shepherdess..... Lerolle	Ex 1034 Prophets..... Sargent
Ex 327 Madonna di Tempi..... Raphael	Ex 619 By the River..... Lerolle	Ex 1035 Prophets..... Sargent
Ex 357 Madonna of the Harpies, Andrea del Sarto	Ex 620 Arrival of the Shepherds..... Lerolle	Ex 1036 Prophets..... Sargent
Ex 367 Holy Night..... Correggio	Ex 648 Baby Stuart..... Van Dyck	Ex 1037 Prophets..... Sargent
Ex 388 Aurora..... Guido Reni	Ex 683 St. Anthony of Padua..... Murrillo	Ex 1063 Can't You Talk?..... Holmes
Ex 394 Mater Dolorosa..... Guido Reni	Ex 735 Queen Louise..... Richter	Ex 1067 Mother and Child..... Bodenhausen
Ex 499 Four Kittens..... Adam	Ex 800 Christ and the Doctors..... Hofmann	Ex 1093 St. Cecilia..... Nanjok
Ex 501 Oxen Going to Work..... Troyon	Ex 801 The Christ..... Hofmann	Ex 1112 Madonna..... Ferruzzi
Ex 509 Angelus..... Millet	Ex 807 Jesus Blessing Little Children..... Ploekhorst	Ex 3140 Countess Potocka..... Schenck
Ex 511 The Gleaners..... Millet	Ex 810 The Good Shepherd..... Ploekhorst	Ex 3154 Lost..... Schenck
Ex 513 The Man with the Hoe..... Millet	Ex 861 Angel Heads..... Sir Joshua Reynolds	Ex 3159 The Brook..... Walter Sargent

DIRECTIONS FOR ORDERING: Order now. Send money order, express order, registered letter or check on New York or New England Banks. Be sure to sign your name and give full address. Write a few extra numbers for second choice.....Address

DO NOT WAIT
SEND NOW.

The Perry Pictures Company,

TREMONT TEMPLE, BOSTON.
76 FIFTH AVENUE, NEW YORK.

Box 112, Malden, Mass.

DO NOT WAIT
SEND NOW.

DO YOU WANT A DICTIONARY?

This is your chance to secure the best dictionary in the world at a low figure.

THE PUBLISHERS' SYNDICATE,

LIMITED

7 AND 9 KING STREET EAST, TORONTO.

... OFFERS THE ...

STANDARD DICTIONARY of the ENGLISH LANGUAGE,

IN two volumes. Half Russia Calf. Latest English Edition. English Binding, with colored plates and thumb index, at the following unprecedented prices:

\$14.00

Cash with order; or on Cash payment of \$3.00 with order and \$3.00 a month for five months equal to \$18.00 in all.

Delivered Free and promptly to any part of Canada.

REMEMBER this is not the one-volume trade edition, which is sold at any price obtainable, but the AUTHORIZED SUBSCRIPTION EDITION, price in England £3 10s. cash, and in America \$18.00 and \$22.00. This offer is strictly limited to our present stock of 250 sets.

ORDER AT ONCE and we will deliver the STANDARD DICTIONARY, free of charges, to your address.

THE PUBLISHERS' SYNDICATE, LTD., 7 and 9 King St. East, TORONTO.
The Biggest Book Store in Canada.

THE BEST EDUCATIONAL PAPER and MONTHLY MAGAZINE ARE THE EDUCATIONAL REVIEW and CANADIAN MAGAZINE.

The EDUCATIONAL REVIEW is a live and progressive Educational journal, practical and stimulating in tone, and thoroughly in accord with teachers and teaching. No live teacher can do without it.

Published monthly (except July) at \$1.00 a year. The EDUCATIONAL REVIEW and CANADIAN MAGAZINE both for \$2.50 a year in advance. And with one of the pictures "The Founders of the Dominion," or "What we have We'll Hold," \$2.80 in advance.



The CANADIAN MAGAZINE, a finely illustrated magazine, thoroughly national in tone, and filled every month with sketches of Canadian history, Canadian life and character. It is valuable in the school room. Published monthly at \$2.50 a year.

The REVIEW and CANADIAN MAGAZINE for \$2.50.

The REVIEW, CANADIAN MAGAZINE and one of the pictures "The Founders of the Dominion," or "What we have We'll Hold," for \$2.80 in advance.

\$2.80

The fine engraving, pictured above, of "The Founders of the Dominion," should be in every school-room. It is 21x13 1/4 inches in size, presenting in clear outline the portrait of the 33 statesmen who confederated Canada. This or the well known engraving, 18x13 1/4 inches, "What we have We'll Hold," is mailed, postage free, to every new subscriber of the EDUCATIONAL REVIEW and CANADIAN MAGAZINE. This makes the EDUCATIONAL REVIEW FREE to every new subscriber, (or one whose subscription is paid in advance), for the regular subscription price of the CANADIAN MAGAZINE is \$2.50 a year in advance, and the regular selling price of "The Founders of the Dominion," is 50 cents.

\$2.80

Do not delay but send your order at once to EDUCATIONAL REVIEW, ST. JOHN, N. B.

THE EDUCATIONAL REVIEW and *Family Herald* and *Weekly Star*, with the premium pictures, "CHRIST IN THE TEMPLE," and "HOME FROM THE WAR," FREE, for \$1.75 to every new subscriber and renewal to the REVIEW and *Weekly Star*. The handsome picture, "HOME FROM THE WAR," 24x17 inches and the equally fine one "CHRIST IN THE TEMPLE," same size, FREE. Can any school afford to be without the REVIEW, the *Weekly Star*, and these two pictures for \$1.75?

Order at once from EDUCATIONAL REVIEW, ST. JOHN, N. B.

PRACTICAL EDUCATION

Is the demand of the times.

PRACTICAL SCHOOLS

Of Business and Shorthand are those of the M. B. C.

PRACTICAL STUDENTS

Are enrolling now. They will have a handicap on all others.

SEND FOR THE PRACTICAL SYLLABUS OF 1901 ... TO ...

Maritime Business College,

HALIFAX, N. S.

KAULBACH & SCHURMAN, Props.

See That ...

THE

SUPPLEMENTARY READINGS IN CANADIAN HISTORY.

are placed in your school this year. Numbers one to twelve will soon be ready, in a bound volume or in separate numbers, filled with just such matter as will make Canadian History interesting.

Ten cents each. The complete series of twelve numbers, One dollar. Bound volumes of the complete series (ready by December 1st) \$1.15. Send to

Educational Review,
ST. JOHN, N. B.

BARNES & CO., STATIONERS.

We handle a large supply of all kinds of stationery. Typewriter Ribbons etc., etc.

Use the ...

Gardner Inkstand,

It is Economical, Durable, Dustproof. It is indispensable to those doing much writing.

BARNES & CO.,

Printers, Bookbinders, Stationers, Etc.

ST. JOHN, N. B.



FRANCIS & VAUGHAN,

WHOLESALE & RETAIL

Boot and Shoe Manufacturers,

19 King Street, North Side,

SAINT JOHN, N. B.

FINE BOOTS AND SHOES A SPECIALTY

The Biggest Book Store in Canada.

You can get from us ANY book on ANY subject, anywhere published.

You can **SAVE MONEY** by buying direct from us.



We do the largest Educational Book Trade in Canada.

THE PUBLISHERS' SYNDICATE,
7 & 9 KING STREET EAST, TORONTO.

Send for our Catalogues, or for any information you may desire about books.

University of New Brunswick.

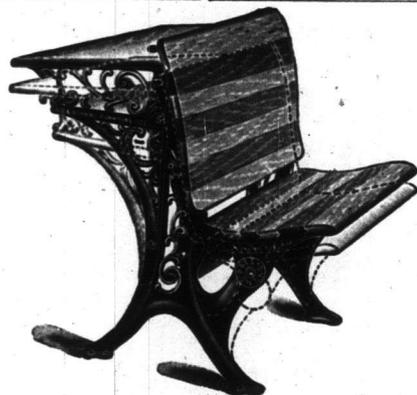
THE next Academic year begins September 27th, 1900, when Fourteen County Scholarships will be vacant. These Scholarships (value \$60 each) will be awarded on the results of the Entrance Examination to be held July 3rd, at all the Grammar School centres. To candidates who hold a Provincial School License of the First Class an Asa Dow Scholarship (value \$150) will be offered in competition in September. The Departments of CIVIL AND ELECTRICAL ENGINEERING are now open to properly qualified students.

Copies of Calendar containing full information may be obtained from the undersigned.

STEPHEN M. DIXON, M. A., BURSAR OF THE UNIVERSITY, FREDERICTON, N. B.

OUR "BALL BEARING" SCHOOL DESKS

Stand to-day Above Criticism—The Standard of the World.



THE B. B. AUTOMATIC DESK.

Order Goods, conscious of the fact that you will get the best at the lowest figure—no matter where or who you are.

The Canadian Office and School Furniture Co., Ltd.

PRESTON, ONTARIO.

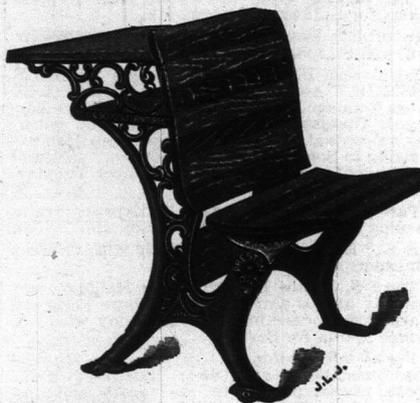
They were the only desks selected by the Government for the Canadian Educational Exhibit at the Paris Exhibition. We have for the sixth time been awarded the contract for desks for the Toronto Public Schools, amounting this year to \$10,000.

During the last two years we sold over 22,000 of these desks, supplying in Canada about three fourths of all the desks required during that time.

These are noiseless desks, whose beauty and honesty of construction place them at once above criticism, and make them the desk above all desks. They have imitators, true, but no equals.

Awarded the Silver Medal, the highest award given on School Desks at the Paris Exposition.

Write to-day. Send for Circulars.



THE BALL BEARING DESK.

The Mutual Life Assurance Company of Canada.

The only Canadian old-line Life Company, consisting of its policy-holders only, had in 1899 its most successful year.

Policy Issue, - \$ 4,751,086
Business in Force, - \$26,946,442

By Act of Parliament assented to June 14th, last, the name of the Ontario Mutual Life Company was changed to The Mutual Life Assurance Company of Canada. An examination of plans with a comparison of rates and endowment results respectfully solicited.

JOHN E. DEAN, E. M. SIPPRELL,
Inspector. Maritime Manager.
ST. JOHN, N. B.

INTERCOLONIAL RAILWAY OF CANADA.

FAST Express Trains between St. John, Halifax, Quebec and Montreal.

The only ALL RAIL LINE between St. John and Halifax.

THE GRAND SCENIC ROUTE BETWEEN THE UPPER AND LOWER PROVINCES.

Vestibule Parlor, Sleeping and Dining Cars on the Maritime Express.

D. POTTINGER, JNO. M. LYONS,
General Manager, G. P. & T. A.
Moncton, N. B. Moncton, N. B.

DOMINION ATLANTIC RAILWAY.

Royal Mail Steamship "PRINCE RUPERT," 1,360 Gross Tonnage, 3,000 Horse Power, ST. JOHN AND DIGBY.

Leave ST. JOHN Monday, Wednesday, Thursday and Saturday, 7.00 a. m., arrive Digby 3.45 a. m., making close connection with Express Trains for Halifax and Yarmouth.

Returning, leave Digby same days at 1.00 p. m. Arrive at St. John 3.45 p. m.

Royal and U. S. Mail Steamships "PRINCE ARTHUR," and "PRINCE GEORGE," 2,400 Gross Tonnage, 7,000 Horse Power, leaves Yarmouth Tuesday, Wednesday, Friday and Saturday on arrival of Express Trains from Halifax, arriving in Boston early next morning. Returning, leaves Long Wharf, Boston, Sunday, Tuesday, Thursday and Friday at 4 p. m.

Parlor Cars are attached to Express Trains running between Halifax and Yarmouth.

S S. "Evangeline" makes daily trips between Kingsport and Parrsboro.

The S S. Prince Edward leaves Halifax every Tuesday at 7.00 a. m. for South Shore Ports and Yarmouth, connecting on Wednesday with S S. Prince Arthur for Boston.

For all information, folders, plans of stateroom accommodation, exquisitely illustrated guide books, tourist pamphlets, etc., gratis and post free, apply to Dominion Atlantic Railway Office, 14 Prince William Street, or New Pier, Reed's Point, St. John.

P. GIFKINS,
Gen'l. Manager.
Kentville, N. s.

SLATE BLACKBOARDS.

CHALK CRAYONS, SCHOOL SLATES, SLATE PENCILS, ... LEAD PENCILS, SCHOLARS' COMPANIONS.

W. H. THORNE & CO., Limited
HARDWARE MERCHANTS,
Market Square, SAINT JOHN, N. B.

Kindergarten } SELBY & CO.
AND }
School Supplies } -- 23 --
RICHMOND ST., W.,
TORONTO.

FLAGS.

Dominion Ensigns, as per official notice of Chief Superintendent, of January 2nd, 1900.

...ALSO British and St. George's Ensigns, and Fort and Union Jacks of all sizes.

Flags With Special Designs Made to Order.

A. W. ADAMS,
North Market Wharf, - St. John, N. B.

EDUCATIONAL REVIEW.

WHOLESALE STIMULATING ENCOURAGING.
\$1.00 per year. Monthly.
EDUCATIONAL REVIEW, ST. JOHN, N. B.

The BEST POLICY in the BEST COMPANY for the BEST RISKS.

THE **Abstainers' Guaranteed Investment Plan.**

A Prominent Insurance Official has said of this Policy :

"In a word, it covers more ground and meets a greater variety of circumstances and conditions in life than any other plan of insurance that has ever been put on the market."

The Temperance and General Life Assurance Company.

HON. G. W. ROSS, President. H. SUTHERLAND, Managing Director.
Head Office :
Globe Building, TORONTO, ONT.

The E. R. Machum Co., Ltd., Agents

for the Maritime Provinces.
SAINT JOHN, N. B.



Anyone sending a sketch and description may quickly ascertain our opinion free whether an invention is probably patentable. Communications strictly confidential. Handbook on Patents sent free. Oldest agency for securing patents. Patents taken through Munn & Co. receive special notice, without charge, in the

Scientific American.
A handsomely illustrated weekly. Largest circulation of any scientific journal. Terms, \$3 a year: four months, \$1. Sold by all newdealers.
MUNN & Co. 361 Broadway, New York
Branch Office, 625 F St., Washington, D. C.

EDUCATIONAL REVIEW SUPPLEMENT FOR CHRISTMAS, 1900.

"A Merry Christmas and Happy New Year to All."

NEW YEAR'S DAY.

Music by T. CRAMPTON.

With spirit. mf

All hail to thee, fair morn-ing, The first in all the year! Ere

cres.
gleams the rud - dy sun - rise, We'll shout with voi - ces clear—

CHORUS.

Oh! a hap - py New Year to all our friends, To all our friends so dear, To

all our friends so dear.

2

The Old Year has departed,
With all its care and fear;
With rosy smiles to greet us,
Behold the New appear.—Сно.

3.

Then give the New Year welcome,
Companions shout again,
For Golden Childhood's beauty
Each year doth joys enchain.—Сно.

BRITAIN'S HEROES.

Words and Music by Rev. W. J. FOXELL, B. A., B. MUS. (LOND.)

p *f*

1. Come, boys, let us tell of the he - - - roes Who have fought and dar'd to

die, for the flag and the Bri - tish Em - pire In the brave days long gone

by. Who have swell'd their country's glo - ry, And made the foe - men

free. The pa - tri-ot, prince, and sol - dier, The ma - ri - ner bold and

CHORUS f e maestoso.
free. Tell how Bri - tain won her glo - ry, Tell how Bri - tain won her

Con Sve.

fame. We'll sing a - loud, for we are proud, Proud of our Bri - tish name.

How the Black Prince won at Cressy,
And King Henry at Agincourt;
How Sidney fell right nobly,
And Malboro' bravely fought.
Tell how Wolfe, at Quebec, died happy,
And of Clive on Plassey's plain;
Of the Iron Duke, the hero
Of many a long campaign.

And tell of the grand old Sea-Dogs
In good Queen Bess's reign,
When Howard, Drake, and Hawkins
Beat back the pride of Spain.
And tell how when Spain was humbled
The Dutchman thought to win;
And then the Frenchman swagger'd.
But we made them both give in.

And tell how the gallant Nelson
In the hour of triumph fell;
Of such true sons of Britain
We ne'er shall tire to tell.
And as we recall the story
Of victory bravely won,
Let us try to add to the record
Of Duty nobly done!

SOFTLY NOW THE LIGHT OF DAY.

From DONIZETTI.

1. Soft - ly now the light of day Fades up - on my sight a - way; Free from care, from la - bor free, Lord, I would commune with thee.

2. Soon for me the light of day Shall for - ev - er pass a - way; Then, from sin and sor - row free, Take me, Lord, to dwell with thee.

Bass or Alto.

Thou, whose all - pervading eye Naught escapes without, within, Par - don each in - firm - i - ty, O - pen fault and se - cret sin.

Thou who, sin - less, yet hast known All of man's in - firm - i - ty, Down from thine e - ter - nal throne, Je - sus, look with pitying eye.

Small notes for Bass.

LET EVERY HEART REJOICE AND SING.

In part from DONIZETTI.

Allgratto.

1. Let ev' - ry heart re - joice and sing; Let cho - ral an - thems rise; Ye reverend men, and chil - dren, bring To God your sac - ri - fice.

2. He bids the sun to rise and set; In heaven his pow'r is known; And earth subdued to him shall yet Bow low be - fore his throne.

For he is good, the Lord is good, And kind are all his ways; With songs and honors sound - ing loud, The Lord Je - ho - vah praise.

For he is good, &c.

While the rocks and the rills, While the vales and the hills A glorious anthem raise, Let each prolong the grate - ful song, And the God of our fathers praise.

Small notes for Bass.

While the manners, while the arts,
That mould a nation's soul,
Still cling around our hearts,
Between let ocean roll,
Our joint communion breaking with the Sun;
Yet still from either beach
The voice of blood shall reach,—
More audible than speech.
We are one!

(From "The Bouquet of Kindergarten and Primary Songs,"
Published by SELBY & COMPANY, TORONTO.