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# THE EDUCATIONAL REVIEW.

FOR THE ATLANTIC PROVINCES OF CANADA.

VOL. XIII. No. 11.

ST. JOHN, N. B., APRIL, 1900.

WHOLE NUMBER, 155.

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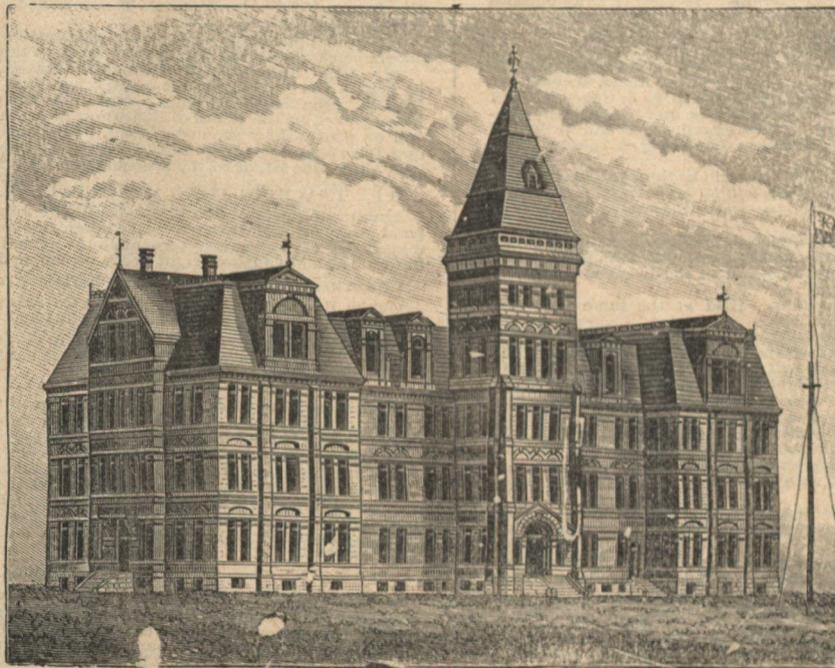
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### N. B. Education Department.—Official Notices.

#### I. DEPARTMENTAL EXAMINATIONS.

(a) *Closing Examinations for License.*—The Closing Examinations for License, and for Advance of Class, will be held at the Normal School, Fredericton, and at the Grammar School Buildings in St. John and Chatham, beginning on Tuesday, the 12th day of June, 1900.

The English Literature required for First Class candidates is Shakespeare's "Merchant of Venice," and selections from Keats, Shelley, and Byron as found in Select Poems, published by the W. J. Gage Co., 1896.

(b) *Normal School Entrance Examinations and Preliminary Examinations for Advance of Class.*—These examinations will be held at the usual stations throughout the Province, beginning on Tuesday, July 3rd, 1900, at 9 o'clock a. m.

The requirements for the several classes will be the same as last year, except that Candidates for First Class will be examined on the First, Second and Third Books of Geometry and Algebra to the end of Quadratic Equations.

Candidates are required to give notice to the Inspector within whose inspectorial district they wish to be examined not later than the 24th day of May. A fee of one dollar must be sent to the Inspector with the application.

(c) *Junior Leaving Examinations.*—Held at the same time and stations as the Entrance Examinations.

The Junior Leaving Examinations are based upon the requirements of the course of study for Grammar and High Schools as given in the syllabus for Grades IX and X, and will include the following subjects: English Grammar and Analysis; English Composition and Literature; Arithmetic and Book-keeping; Algebra and Geometry; History and Geography; Botany; Physiology and Hygiene; and any two of the following: Latin, Greek, French, Chemistry, Physics [Nine papers in all]

The pupils of any school in the province are eligible for admission to this examination. Diplomas are granted to successful candidates.

Fee of Two Dollars to be sent with application to Inspector, not later than the 24th of May.

The English Literature for the Junior Leaving Examinations will be Select Poems of Goldsmith, Wordsworth and Scott, as found in collection published by W. J. Gage Co., 1896.

(d) *University Matriculation Examinations.*—Held at the same time and stations as Entrance Examinations. Application to be made to Inspector, with fee of two dollars, not later than May 24th.

The Junior Matriculation Examinations are based on the requirements for matriculation in the University of New Brunswick, as laid down in the University calendar. (Candidates will receive a calendar upon application to the Chancellor of the University, or to the Education Office.)

The English Literature subjects are Shakespeare's "Merchant of Venice," Rolfe Edition, and Selections from Keats, Shelly and Byron, as found in Select Poems, published by the W. J. Gage Co., Toronto, 1896.

The examination paper in French will be based on the syllabus of High School Course for 1899 in Grades IX, X and XI.

The Department will supply the necessary stationery to the candidates at the July examinations, and all answers must be written upon the paper supplied by the Supervising Examiners.

In the June examinations the candidates will supply their own stationery.

Examinations for Superior School License will be held both at the June and July examination. The First Book of Caesar's Gallic War will be required in both cases.

Forms of application for the July examinations will be sent to candidates upon application to the Inspectors, or to the Education Office.

(e) *High School Entrance Examinations.*—These examinations will be held at the several Grammar and other High Schools, beginning on Monday, June 18th, at 9 o'clock a. m. Under the provisions of the Regulation passed by the Board of Education in April, 1896, question papers will be provided by the department. The principals of the Grammar and High Schools are requested to notify the Chief Superintendent not later than June 1st, as to the probable number of candidates.

#### II. TEACHING DAYS AND SCHOOL HOLIDAYS, 1900.

SUMMER HOLIDAYS. Six weeks, beginning July 1st. In cities, incorporated towns, and Grammar and Superior School Districts in which a majority of the ratepayers present at the annual school meeting voted for extension of vacation, eight weeks beginning July 1st.

CHRISTMAS HOLIDAYS. Two weeks, beginning on December 22nd.

OTHER HOLIDAYS. Good Friday, the Queen's Birthday and Thanksgiving Day; also, in the City of St. John, Loyalist Day.

No. of Teaching Days, First Term, 123; in St. John, 122.

No. of Teaching Days, Second Term, 94; in cities, etc., 84.

#### III. EMPIRE DAY.

Wednesday, May 23rd, is to be observed in all the schools as EMPIRE DAY by carrying out a programme of such exercises, recitations and addresses as will tend to promote a spirit of patriotism, and to impress upon the pupils adequate views of their privileges and duties as Canadian citizens and subjects of the British Empire.

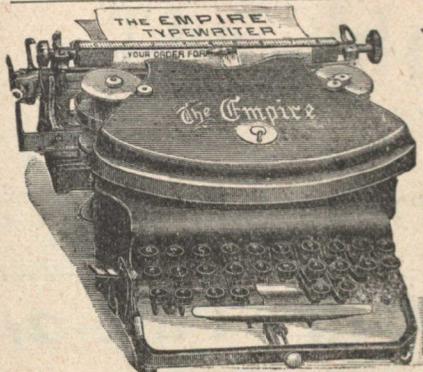
Trustees are urgently advised to provide for the school-house, wherever practicable, a Canadian Flag and a flag-staff; and teachers are instructed to see that the Flag is raised on Empire Day, the Queen's Birthday, Dominion Day, Thanksgiving Day, and other national anniversaries.

#### IV. TEXT BOOKS.

The First and Second Primers of the New Brunswick Series of Readers, [according to notices in *Royal Gazette* dated August 10th and August 29th, 1899] have now superseded the Primer and First Book of the Royal Reader Series. It is intended that the remaining numbers of the "New Brunswick Readers" will come into use at the opening of the Term in August next. During the present Term it is permissible to use the First Book of the new series instead of the 2nd Royal Reader in any school in which it may be found necessary to purchase new Readers for Grade III.

Education Office,  
January 2nd, 1900.

J. R. INCH,  
Chief Supt. of Education.



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ST. JOHN, N. B., APRIL, 1900.

\$1.00 PER YEAR

G. U. HAY,  
Editor for New Brunswick.

A. McKAY,  
Editor for Nova Scotia

## THE EDUCATIONAL REVIEW.

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### Always Read this Notice.

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St. John, N. B.

OUR advertising columns are more than usually interesting this month.

OUR readers will find in this number suggestive reading for Easter, Arbor and Bird day. In many places there is a school day set apart for special study and talks about birds. In our schools such exercises may very well form a part of the Arbor Day programme as has been recommended in the *REVIEW* in former years. There is a growing interest among school children in the study of birds; there is a greater desire on the part of intelligent farmers and fruit growers to preserve them as useful allies; and finally their bright songs

and winning ways gladden this world and help to make it attractive and beautiful. Thus all should feel an interest in them and desire to preserve such useful and pleasant neighbors.

NUMBER NINE of the *REVIEW* Series of Supplementary Readings in Canadian History has just been published. It is one of the most attractive and interesting of the series, and the choice of subjects and treatment will especially appeal to young students. It contains the following: The Explorers of Canada, Newfoundland as It Is, The Heroine of Verchères, The Return of the Acadians, The Location of the Acadians in Nova Scotia (with Map), The Loyalists in Old Nova Scotia, The Assault of Montgomery and Arnold on Quebec in 1775.

These readings are proving very useful to schools in providing supplementary matter in Canadian history. They were begun with that end in view, with a faith that the interest of the subject, and the public spirit of our teachers and students would win for them a steady support. We have not been disappointed. The mails one day recently brought subscriptions for them from England, the Yukon, Ontario and the United States, showing that they are sought for abroad as well as in different parts of Canada. Subscription price for the full series of twelve numbers, one dollar. Single numbers, ten cents.

DR. A. H. MACKAY, F. R. S. C., Superintendent of Education for the Province of Nova Scotia, has been appointed a member of the Geographic Board of Canada.

THE Centennial number of the *University Monthly* just issued is a double number and reflects credit on its enterprising corps of editors who have enlisted the co-operation of many distinguished graduates and others to add to the excellence and attractiveness of this number. There are portraits of Sir Howard Douglas and the presidents who have guided the affairs of the University from its foundation, with views of the University and scenes in and about Fredericton. The number fittingly recalls the past, and well illustrates the desire of graduates and undergraduates to commemorate suitably the centennial of the University.

### Manual Training in Nova Scotia.

The following bill has just been passed by the Legislature of Nova Scotia :

When the trustees or commissioners of any school section shall provide a department for manual training in any department of the mechanical or domestic arts, with adequate equipment for at least *twelve* pupils at the same time, and shall have employed a teacher certified by the Council to be competent to give such practical instruction, and shall cause such instruction to be given free for one session of two hours each week to the residents of the section, more particularly the pupils of the Provincial Grades VI, VII and VIII, and shall in these and in all other respects efficiently accommodate and conduct the public schools of the sections, in accordance with the statutes and regulations of the Council, then the Council may pay out of the provincial treasury to such trustees or commissioners, in semi-annual instalments, or as determined by the Council, a sum not exceeding six hundred dollars, at the rate of fifteen cents for each two-hour lesson to each pupil.

The provision thus made for this important subject is most liberal. It will enable almost every section, having three or more than three departments, to establish at a very small direct expense departments in which boys may be taught the use of tools, and girls may be taught sewing and cookery. A department for woodwork might require twenty benches, which with a full supply of tools for each desk would cost between three and four hundred dollars, or about thirty-five dollars a year for ten years. The annual cost for new tools and lumber would not exceed thirty-five dollars.

A school section with four departments would have about twenty boys of a suitable age—enough to form one class. In such a section the services of the manual training teacher would be required only one half day per week. It is evident, then, that several sections, not too far apart, might unite for the purpose of engaging a suitable teacher and thus divide the expense of his salary. Take for example, Dartmouth, Windsor, and Hantsport. These three towns could supply 120, 60, and 20 pupils respectively, and thus draw a government grant of \$1,080. Being connected by rail, one teacher would have no difficulty in giving the full quota of lessons required.

It is to be hoped that the larger provincial town, at least, will not delay in taking advantage of generous grants offered for a subject peculiarly adapted to the needs of city boys. The country boy has many opportunities for the training of the hand and eye—opportunities which are denied to his cousin in the city. This all-round development largely accounts for the fact that the larger proportion of leading men, even of the towns, were brought up on the farm.

### Educational Conventions this Summer.

The Summer School of Science for the Atlantic Provinces, meets this year at Bear River, N. S., one of the most charming and picturesque spots in Canada. Last year it met on the banks of the far-famed Restigouche, and the result—the largest attendance in its history—was due to the selection of a place where instruction and recreation could be most delightfully combined. This year, the same conditions are met, and the result may be confidently predicted—"the largest gathering in its history." The Summer School is a progressive association, and teachers and other students are quick to grasp the value of meeting with kindred and progressive spirits, especially where the added charm is thrown in of seeing and exploring places where novelty, fine natural scenery and abundance of opportunity to study exist. Send for a calendar giving full information. Address J. D. Seaman, Secretary, Charlottetown, P. E. I.

The Provincial Teachers' Institute of New Brunswick meets this year at Moncton, on the 27th of June, and will continue in session three days. An excellent programme has been arranged, which, with the splendid opportunities that Moncton possesses as a central locality and its fine school buildings, should draw together a large and enthusiastic body of teachers.

The National Educational Association of the United States is to meet at Charleston, South Carolina, in July.

The American Institute of Instruction has obtained the first advantage in the toss up for position. July weather is hot enough, as a rule, without going to South Carolina. The great American Institute, not finding a certainty of the proper invigorating air for vacation and business south of the boundary line, are going north to invade the Queen's dominions, and capture the sea breezes, foreign scenery, and British hearts of Halifax. The time is the second week of July, immediately after the close of examination week.

It will be a great opportunity for the teachers of the Atlantic Provinces, who not long ago had an opportunity of seeing some of our Dominion educationists. The American Institute, we trust, may draw even more of our inland province educationists to Halifax, than visited it in 1898. It might be proper for our education departments to give to teachers attending the same advantages granted in the case of the Dominion Educational Association of 1898.

If all the teachers and school secretaries would take the *EDUCATIONAL REVIEW* and read it, the amount of the Inspector's correspondence would be sensibly lessened.—*Inspector Mersereau.*

### New Brunswick School Report.

The report of Dr. Inch, Chief Superintendent of New Brunswick schools, for the year ending June, 1899, has been received. In addition to statistics for that year, there is appended a statement comparing the growth of the schools for the past eight years. The result shows a considerable increase, although there is a slight decrease in the percentage of population attending school. There are other points in this comparison which are of some interest. Thus, it is pointed out that in the cities of St. John, Fredericton and St. Stephen the school enrolment has been practically stationary for the past eight years; and the conclusion is reached that, unless the population of these cities is stationary, a larger proportion of children than formerly are not attending school. Dr. Inch shows that it is extremely difficult to determine what proportion of the population is growing up in illiteracy, and recommends taking a reliable school census, such a census constituting a necessary part of the compulsory attendance law. This law should deal quite as stringently with irregularity of attendance as with non-attendance. He points out that there was a decrease in the average attendance for the past year, it being only 62.5 per cent of the enrolment.

Of the teachers employed, 22 per cent are men and 78 per cent women. It is satisfactory to note that a much larger percentage than formerly of the higher class teachers have been employed during recent years; but it is not so satisfactory to learn that the average salaries paid to teachers have decreased for all classes except second class female teachers, and the increase there is insignificant.

The number of pupils attending the high and superior schools has increased from 610 to 1549 in the past eight years; and during that time the improved character of the school buildings erected is a most creditable feature in our educational progress. Important suggestions for the improvement of our educational system are made by Dr. Inch: the necessity of making the normal school a purely professional school with greater facilities for practice in teaching; the exclusion from the list of "poor" districts those that are now self-supporting; suggestions for the better maintenance, equipment and preservation of books in school libraries; the prospect of improved facilities in agricultural and technical education; the expediency of enacting a compulsory attendance law; the consolidation of school districts. These recommendations, stated at length with clearness and force, call for more than a passing notice. We hope to refer to them in a later number, and to the reports of the inspectors and other school officers, whose valuable suggestions have an intimate bearing on the work of the schools.

### More Practical Teaching in Arithmetic.

It would be of very considerable advantage to our country to have a decimal system applying to all our weights and measures, as it now applies to our money tables. To help along a movement in this direction the parliament of Canada and the United States Congress made the hundredweight equal to 100 pounds. Owing, however, to the fact that England, which does so much of the trade of the world, has not made a corresponding change, the "cwt." still means 112 pounds, perhaps more frequently than it means 100 pounds. The chairman of the Halifax School Board has called attention to the fact that the pupils in our schools are not taught regarding the practice that prevails in this respect,—often to their great inconvenience in after life. No doubt the text-books on arithmetic should have called attention to this point. Teachers, however, should not depend too much upon the text-books in this or in any other subject. They should carefully study the pupils' environment and prepare him for it. For mental discipline, one subject is about as good as another. The manner of teaching is almost everything. Evidently, then, it is best to select those subjects and facts which serve not only for mental discipline, but also for the practical purposes of life. Hence the importance of good penmanship, spelling, English, and a clear understanding of ordinary business transactions.

### One Teacher's Plan for Nature-Study.

A young lady who teaches in one of the country districts of St. John County, writes thus to a friend:

"I must tell you something about what we are doing in Nature-study. As the pupils are all small, no advanced work can be taken up, but the interest they take in finding out things for themselves, and how much they remember of what they thus learn, is quite remarkable.

Last autumn we began to watch caterpillars. We kept several in a large bottle with some leaves. The chrysalis interested the children very much. Two of the smallest girls each got a caterpillar and took it home. In less than a month they had two beautiful moths, while those we kept in school were yet in the chrysalis stage. The children watched the changes very closely and so learned more than just the fact that caterpillars turn into moths.

Last winter we studied the chickadees and a bird we call the Moose-bird, but I have not been able to find a description of it in my 'Canadian Birds.' Since then we have taken up the Junco, the Song-Sparrow and the Nut-hatch. The last I never noticed until last August. When the pupils see a bird they do not know, they tell me, and from their description of it we are generally able to determine its name. In this way we have found quite a number of birds in this place that formerly we thought were not found here at all. Among these is the Horned Lark.

I have not taught the children much about the birds, but they have taught me a great deal.

### NATURE-STUDY — APRIL.

March was so cold and backward that the hints on nature study given in the last REVIEW may very well serve for this month. As this is Arbor Day number, a talk on trees will not be out of place.

Of the different kinds of native trees that grow in these provinces—about forty in all—how many are found about the schoolhouse? How many do your pupils know? At this time of year it will be easy to divide them into two great classes, the *evergreen* and *deciduous*. The evergreen trees are nearly all cone-bearing. They have resinous wood, narrow leaves, usually of a bright, vivid green, and the cones are made up of flat, thin scales, at the base of which may be found, when the cones are mature, two naked seeds, if they have not dropped to the ground, or if the birds, especially the cross-bills, have not used them for food. The white pine, with its tall trunk, spreading branches, and its needle-like leaves in clusters of five, is familiar to all. The red pine and the scrub pine are not so familiar in many parts of the provinces, but their needles are also bound together in sheaths, although the number in a bundle is different. The spruces and the fir have shorter leaves, flatter than those of the white pine, and are single, that is, not collected in bundles. The hemlock has short, flat leaves, with a minute stem to each; the under side lighter colored. The scale-like leaves of the cedar adhere closely to the stem or twig. Notice that the tamarack tree, although a cone-bearer, lost its clusters of leaves at the approach of winter. It is deciduous.

Many interesting points for observation may be suggested to pupils by questions. Where are the buds situated on evergreen trees? How do they differ in position and number from those of the deciduous trees? How are the buds covered? Is any difference noticed in the texture of this covering in the two classes? When were these buds formed on all the trees? Why is it an advantage for some trees to retain their leaves in winter? Why an advantage to others to shed them? Has the size of the leaf anything to do with the retention or shedding? Why are narrow, needle-like leaves best for winter? (Assistance in answering these questions will be found in back numbers of the REVIEW).

Of the deciduous trees, the maples are the most attractive in our woods, especially in the fall of the year when their bright colors give great variety and beauty to the landscape. There are five species of maples, the red being the most abundant. The mode of veining of the leaves, forms of flowers, winged seeds, are different from other trees. The birches are also

very abundant, and embrace some five or six species, some of them being valuable timber trees. The flowers are in aments or catkins, both kinds, pistillate and staminate, growing on the same plant (monœcious). The alder, hazel nut, and iron-wood are closely related to the birch, and have similar flowers. These flowers are produced in early spring, so that the pollen they produce is blown about by the wind freely before the leaves come out. The beech, of which we have one species, and the oak, of which there are two or three species, are fine shade trees as well as valuable for timber. The flowers of these are also monœcious, the staminate flowers of the beech being in rounded heads. The butternut, or white walnut, is also a fine timber tree, now, unfortunately, becoming too rare with us. Its large compound leaves resemble those of the ash tree, of which we have three species, all valuable for manufacturing purposes. The elm is our most beautiful shade tree, loving the rich interval soil, where it flourishes in greatest abundance and luxuriance. The willows, which include the poplars, are both numerous and puzzling to determine; and most of our native species are small in size. The flowers are borne in catkins or aments, usually preceding the leaves. Since the staminate and pistillate catkins are borne on separate plants, the willow is said to be dioecious; and the bees which feast upon its sweets give ample recompense by distributing the pollen to the pistillate flowers, thereby greatly increasing the seed-bearing power of the plant.

Since the leaves are not on these trees at this season, it will be more difficult to tell them apart, but the children may be directed to observe and tell: Which may be readily distinguished by their bark? Which are the first to shed their pollen? (tested by shaking the catkins of alder, birch, hazel, etc.) Which put forth their leaves first? Which last? Which has the smoothest bark? Which the roughest? Which the lightest in color? Which the darkest? Which tree is the prettiest in outline? (There are those who see no beauty in trees in winter or early spring, when they are leafless, but this is the time to see the shapely outline of trees to the best advantage). What trees grow on high ground? on low? in wet soil? in dry? Which are most useful for timber? Which are the most ornamental?

Do your pupils know how valuable trees are outside of the timber they produce or the shade they give? Do they know that land may be reclaimed and made more valuable by tree planting? That if our people are not more careful to prevent forest fires, our timber products will be greatly lessened, and much valuable land rendered desolate and almost useless? That destructive

floods are caused by the cutting down of forests along the courses and at the sources of rivers? That forests act as reservoirs, holding in their vast net-work of roots, moisture that in time of drought will be drawn upon to prevent lasting injury to vegetation? That six per cent more rain falls annually in forests than in open fields? That forests determine to a great extent the mean temperature of a country, making air currents cooler by day and warmer by night? That trees perform a valuable service by breaking up the injurious carbon dioxide of the air and setting oxygen free?

Will the hundreds of teachers who get the REVIEW and read it, take pains, in addition to planting trees and making their school premises inside and out more attractive, give some useful instruction along the lines we have pointed out?

#### THE HEAVENS IN APRIL.

The evening skies during April present the greatest number of first magnitude stars visible at any one time during the year. Twelve of the sixteen brightest stars visible in this latitude are above the horizon at once, and the brilliant spectacle which they afford is well supported by their less conspicuous neighbors.

At 9 P. M. in the middle of the month Orion hangs close above the western horizon, the three stars of his belt forming a nearly horizontal line. Above them is the bright red star Betelgeuse, in the giant's right shoulder, and equally far below the white Rigel marks his left foot. Between the belt and Rigel are three fainter stars in an almost vertical row, which form his sword. All three of these appear in a field glass as interesting double stars; and around the middle one spreads the great nebula, one of the most magnificent of telescopic objects.

The line of Orion's belt points on the left to the brilliant Sirius, and on the right to the ruddy Aldebaran, beyond which are the Pleiades. Above Sirius, and forming an almost equilateral triangle with it and Betelgeuse, is Procyon, the lesser dog-star, while farther north, above Orion, starry Gemini displays its twin brilliants, Castor and Pollux, and still farther to the right is the bright star Capella, near the Milky Way.

The Great Bear is almost overhead, in the highest part of its circle around the pole. Farther south is Leo, only too well known to those who watched vainly for the meteors of last November, which is marked by the familiar "sickle" with Regulus at the end of the handle. Arcturus shines at a considerable altitude in the eastern sky, while below and to the right the paler Spica marks the constellation Virgo, and far in the northeast Vega is once more above the horizon, after some months' absence from the evening skies.

Mercury is morning star. Venus dominates the evening sky, remaining above the horizon for fully four hours after sunset, and far surpassing in brightness its stellar neighbors. It is increasing in brightness, and can easily be seen in the day time if one knows just where to look for it. Mars is morning star. Jupiter is coming into position for evening observation, rising about eleven o'clock in the middle of the month. Saturn rises about midnight on the 15th, and about an hour earlier at the close of the month.—*Condensed from Scientific American.*

#### Astronomical Notes.

Several questions on astronomical subjects have been lying about on my table and on my conscience for some time back; and, as the inquirers seemed to prefer to get the answers through the REVIEW, it may be just as well, perhaps, to give up my two columns for this month to wiping these matters off the slate.

"Can you tell me the diameter of the circle of revolution of the earth around the centre of gravity between the earth and the moon? The popular conception, I believe, is that the moon merely revolves around the earth, which goes along her pathway as if the moon had no existence. But I believe I am correct in saying that the earth and moon both revolve around a common centre of gravity."

The gentleman who asks this question is to be complimented on the precision with which he puts it, in the first place, and on the admirably clear and definite way in which his supplementary sentences show just what it is that he wants to know. I heartily commend his style of asking questions to all others who may in the future honor this department of the REVIEW with their queries.

What he says of the popular conception as regards this matter, is true so far as my experience goes. And it is quite a natural conception, too, and is found very convenient by the mathematical astronomers, from whom it may have filtered through to the popular intelligence. But of course the mathematical astronomers guard against the error that such convenient conceptions would otherwise introduce into their work by offsets in the form of what they call "equations."

Certainly the earth and moon both revolve around a common centre of gravity. And since the mass of the earth is about eighty times that of the moon, and since the distance of the centres of the two bodies is about sixty times the earth's radius, the common centre of gravity must be a point on the line joining the two centres at about three-fourths of the earth's radius from the earth's centre. Prof. Young, in his "General Astronomy," Article 228, says: "This centre of gravity

is situated within the ball of the earth on the line joining the centres of the two bodies at a point about 1100 miles below its surface."

For the "diameter of the circle of revolution" asked for, subtract these miles from the earth's radius and multiply by two.

\* \* \* \* \*

"Can you also," says the same correspondent, "give me a scientific reason why the moon always presents the same face to us?"

A "scientific reason." An eminent living (unless he has died lately) exponent of scientific philosophy tells us that science does not profess to explain anything. If that is so, it seems to be useless to ask for a "scientific reason" for anything. Once upon a time folks supposed they were getting a scientific reason for the cold in Greenland when they were told it was due to the fall of the mercury in the tube of the thermometer. And about the same time we learned that the "scientific reason" for the green color of the leaf was the presence of chlorophyll (*i. e.*, leaf-green) in the leaf.

I don't know what my correspondent would call a "scientific reason" for the phenomenon he mentions, but it is the usual thing to say that we always see the same side of the moon because she completes a rotation on her axis in the same time that she takes to complete a revolution around the earth. To folks who are accustomed to swallow whole any so-called explanation, this is always quite satisfactory. And when these folks come to talk afterwards about these two related facts, they often get them wrong end foremost. It is not at all uncommon to hear people talk as if they had an idea that the monthly rotation of the moon was a fact of observation, and that the presenting of the same face to the earth was an inference from this. Of course things are just the other way round. But those who have cultivated a habit of sipping or chewing—instead of gulping or swallowing—what is offered them as an explanation often find this explanation of this fact a hard saying. Take the first half-dozen men you meet and set one of them to move in a circle around a chair, or something, always facing the chair. Then ask them if the one who revolved about the chair did also at the same time perform a rotation about his own axis, and it is odds that most of them will say "No." This is due to an inadequate appreciation of what is meant by rotation. If a movement (whatever else it may be) results in a man's pointing his nose successively to all the different points of the compass, then that movement is a rotation. As the moon presents the same face to the earth during the whole month, she must present that face to all points in a circle among the stars during

the same time. And so while she is revolving about the earth (under the limitation already mentioned) she is also rotating about her own axis. It is coming to be generally believed among astronomers that the planets Venus and Mercury behave in the same way towards the sun.

\* \* \* \* \*

"I have never been able, satisfactorily, to account for the heaping up of the water on the opposite side of the earth when the sun and moon are in conjunction. Is it owing to the centrifugal force consequent upon the earth's motion around the centre of gravity before referred to?"

Very likely it is, in part, at least. And there are some authorities who seem inclined to charge the whole of it to that cause. Anyone who has a copy of Newcomb's Popular Astronomy will find something on this side of the question there. But this is not the usual explanation of "the opposite tide." What that is may be found in all sorts and conditions of books that deal with the subject, from the monumental work of Darwin (not the great dead Darwin, but his great living son, the Plumian Professor of Astronomy at Cambridge,) down to Calkin's Geography. If Prof. Darwin's book is not available, the anxious inquirer may consult his article on "Tides," in the ninth edition of the Encyclopaedia Britannica.

\* \* \* \* \*

Speaking of Calkin's Geography reminds me of another astronomical query which is always coming to hand about this time of the year. This time it takes this form: "Is it true, as our geography book tells us, that Mercury 'cannot be seen without the aid of a telescope?'"

"Es ist eine alte Geschichte  
Doch bleibt sie immer neu."

No, it is not true. It is unfortunately too late in the season for the querist to see the untruth for himself by looking at Mercury as his white disk twinkles in the sunset glow; but there will be other opportunities by and by.

Yes, I said "twinkles;" and if you had happened to be looking at Mercury on the evening of March 8th last you, too, would have seen him twinkle, and would have rid your mind for ever after of that other hoary old text-book falsehood about planets not twinkling. Just watch Venus when she is low, or any other planet when near the horizon. But Mercury is the twinkling-est of them all.

A. CAMERON.

Yarmouth, N. S., April, 1900.

In every school board is to be found at least one member whose sympathies are all with the young girl trying to fit herself to be a teacher, rather than with the children whom she will have to teach.—*School Journal.*

### Of Interest to the Families of Loyalists.

*To the Editor of the Educational Review:*

SIR—During the course of last year there were transcribed for the New York Public Library the memorials of Loyalists—very many of whom settled in the Maritime provinces—for compensation for losses incurred in consequence of the Revolution. The memorials are supported by the sworn testimony of the Loyalists themselves, and contain a veritable mine of information. Having inquired of Mr. Victor H. Paltsits the conditions under which the information is available to those interested, he has obtained the decision given below, from the Trustees of the N. Y. Library, dated March 22, 1900:

“In reply to the question of the Rev. W. O. Raymond, which you have given me, I would say that the Library will furnish copies of the records of claims of individual Loyalists at the rate of ten cents per hundred words, provided it has reasonable assurance in each case that the copy is wanted for private or family information only and not for purposes of publication. In all cases, a rough estimate will be made as to the number of words, and the payment must be made in advance. In any special work such as tracing of maps, etc., there will be a special charge for the same.”

Many persons will be glad to hear of this opportunity to obtain information of their loyalist ancestry, which could not easily be obtained from other sources. Any communications should be addressed to Victor H. Paltsits, Lenox Library, New York,

St. John, N. B.

W. O. RAYMOND.

### Spelling in the Public Schools.

*To the Editor of the Educational Review:*

SIR—In the last issue you publish the opinion of the principal of a commercial school to the effect that the spelling of the pupils of the public schools is deplorably bad.

The public schools are not above criticism, which is beneficial if it be well founded. I do not assume that the head of any reputable school would disparage the work of the public schools in order to build up his own; but it is well known to many teachers that some of the commercial schools hold out special inducements to pupils who fail to keep abreast of their work in the public schools. This is especially noticeable in the case of those who fail in the N. B. Normal School examinations. That this is recognized and is not true of all of them, is shown by the advertisement of one commercial school in which it is stated, “We offer no inducements to incompetents to come to us.”

Now, Mr. Editor, I have no objection to the work of the public schools being judged from their finished

products, but to be judged by the work of pupils who have failed to pass their requirements is unfair. No workman would care to be criticized on the merits of half-finished work. It is stated that the tests given were common words. That may be, but many so-called common words are very difficult to spell, particularly to pupils the majority of whom leave school before completing Standard IV. of the course, and of those who do attend, a percentage of barely 60 is made. It is but reasonable that the vocabularies of these pupils should be limited in proportion to their opportunities. Among the most advanced pupils, too, there will always be a few poor spellers, as it seems to be constitutional with some, and with others it is no doubt due to ineffective teaching.

I have some opportunity of forming an opinion of the spelling of the pupils in the public schools, and I believe, while there is, and always will be, a margin for progress, that on the average it is decidedly good, and that in very many schools a stronger adjective can be truthfully used. I think also that those who have the most intimate knowledge of the work of the schools will agree with me in this statement.

It has been a custom in the past to judge the entire work of the public schools by a few “monstrosities” in the way of examination answers. This has not been more true of spelling than of arithmetic, history and geography.

During the last two or three years, there has been a revival of the old fashioned spelling match in some parts of this province. In every contest that has come to my notice, the first place has been taken by a teacher of the public schools, and not an old timer either, though old and young competed. I do not by any means regard this as a test, but it will surely appeal to those who judge the many from the performance of the few.

Yours, etc.,

W. S. CARTER,  
*School Inspector.*

St John, N B, March 24, 1900.

The American Ornithologists' Union has issued a strong appeal for funds to be used for the purpose of protecting sea-gulls while nesting. It is claimed that the Terns, described as the “most exquisite of the gull family,” and which formerly thronged the whole coast, have been so nearly wiped out by agents of the milliners that this year's onslaught, already fully organized, will glean almost the last pair from the few small breeding colonies which remain, wherever these are unprotected. The larger gulls, which “are not only very beautiful, but absolutely essential as harbor scavengers,” are also being decimated for the same purpose.

### An Acadian Easter.

BY ELEANOR ROBINSON.

One of the most interesting chapters of Canadian history is that which tells the story of the feud between Charles La Tour and D'Aulnay Charnisay, and the defence of Fort La Tour; and no difference of opinion or wearisome discussion over the site of the fort can loosen the hold that the brave lady of Fort St. John has on our hearts. The story has often been told, but not in verse. Whittier's ballad, inadequate to the subject, shows us only La Tour's home-coming and his determination to revenge his wrongs. In "An Acadian Easter," which occupies the first place in the April issue of the *Atlantic Monthly*, Mr. Francis Sherman shows us the situation from the point of view of Madame La Tour herself.

The poem is graceful and pathetic, with occasional vivid touches; occasionally too it is so fanciful as to be almost fantastic, and it is not the first time that Mr. Sherman has given us the impression that he has a finer conception than he can work out. We catch glimpses of the beauty of the whole, as it exists in his mind; but the expression is sometimes disappointing. His conception of Madame La Tour's feelings at Easter-tide, 1645, is a striking one. It was on Easter Sunday that the gates of the fort were treacherously thrown open, after three days hard fighting, and its noble defender did not long survive her defeat.

The poet has represented her as looking for Easter morning as sure to bring her husband and deliverance; and to these hopes are added the instinctive longing for spring, for the re-awakening of nature, and deliverance from the cold and darkness of the northern winter, and the hopes that the thought of the resurrection brings, for the restoration of past happiness, of buried joys, of the days of love and prosperity in beautiful France. The rejoicings of the Church at the great festival, mean all this to the lonely, courageous woman.

The poem is in four sections, opening with the prayer on Good Friday:

"Surely, O Christ, upon this day  
Thou wilt have pity, even on me!  
Hold thou the hands of Charnisay,  
Or bid them clasp, remembering thee.  
O Christ, Thou knowest what it is  
To strive with mighty, evil men."

Then follows a bit of fine description:

"Now the veering wind had found the south and led the following tide up no moon path,  
Calling the mists—white as the circling gulls—in from the outer rocks.  
Heavy with rain, the fog came in, and all her world grew dark."

The second part opens with her eager, hopeful looking for her husband on Easter even:

"A little while and I shall see  
His ships returned to fight for me.  
He may not dream what bitter woes  
I have to bear; but still he knows  
April and I wait patiently.

"Does he not hear spring's trumpet blow  
Beyond the limits of the snow?  
Hark how its silver echo fills  
The hollow places of the hills,  
Proclaiming winter's overthrow!  
How glad he was in the old days  
To tread those newly opened ways!

"Things now so sad to think upon  
And yet he must return ere dawn."

But when Easter morning came, and with it no sign of deliverance:

She quietly said, "It is not Easter Day."

Only in France she thinks it is Easter; there are the lilies, the sunshine, the chants of rejoicings; and yet

"O golden France, do they know  
The gladness that we know when April comes  
Into the solitude of this our north,  
And the snows vanish as her flying feet  
Are heard upon the hills? Their organs, now,  
Do they sound unto heaven a prouder strain  
Than these great pines? Hark how the wind booms through  
Their topmost branches, come from the deep sea!  
And how old Fundy sends its roaring tides  
High up against the rocks. Yea, even in France,  
I think God sees not more to make him glad  
To-day,—only the sunshine and the lilies."

The metre changes again for the prayer on Easter morning, and this entreaty is to the lilies that are blooming so gladly in France; the risen Lord must not have sorrow brought before Him on this day, and so they are to tell him:

"Under fair blue skies,  
Lord Jesu, in a fruitful place,  
Their souls—the stronger for thy grace—  
Draw nigh unto the sacrifice."

Then comes the last struggle and the defeat; and the poem closes with the very vivid and beautiful soliloquy of Madame La Tour when very near to death. We can quote but briefly from this passage; but we think that thoughtful reading of it will convince one that Mr. Sherman possesses both true insight and real lyric power:

"Hearken! Afar on the hills, at last is it surely spring?  
Have the sudden mayflowers awakened to see what the wind  
can bring?  
There in the bare, high branches, does a robin try to sing?"

"O desolate years! are you over at last with your devious ways?"

Nay, I should say, 'Let me go from you gladly, giving you praise.

For the least of the things I remember of you and the least of your days.'

"O strong, sweet sound of the sea,  
Do you sorrow that now I must go? Have you pity to waste upon me

Who may tarry no longer beside you, whom time is about to set free?

Nay, sorrow nor pity at all. See, I am more glad than a queen  
For the joy I have had of you living!"

"Renewing those old royal days, of all else careless now,  
unaware,

Among the remembering lilies her soul abides patiently there."

FRANCIS SHERMAN.

For the REVIEW.]

### Algebra.

To those teachers who have experienced difficulty in teaching the fundamental principles of algebra, I would suggest the following method, which gives excellent results.

First of all, we will agree to let the plus quantities denote our assets or property, and the minus quantities our liabilities or debts. In this way pupils will readily understand why it is that in adding a plus to a minus quantity we "subtract and affix the sign of the greater."

With subtraction we have more trouble. For example, let us use the problem  $(8a - 5c)$  less  $(6a - 3c)$  to illustrate the reason for "changing the signs of the subtrahend and adding." We reason thus: I have  $8a$  dollars worth of property and  $6a$  are taken away leaving  $2a$ . This  $2a$  must be a plus quantity since it is an asset. Again, I have a debt of  $5c$  (dollars) and have  $3c$  of my debt taken away, thus leaving me with a debt of  $2c$ . The result is then  $2a - 2c$ . By proceeding with addition and subtraction questions, side by side, the pupils will have no difficulty in discovering that we have been obtaining the same results as we might have obtained by changing the signs of the subtrahend and adding.

No trouble will be found with multiplication if it is taken up in the same way as the multiplication tables in arithmetic, viz.: by adding. In this way we prove that "unlike signs produce minus and like signs plus."

As division merely includes the three other processes, no trouble should be experienced by the pupil in mastering it with very little assistance. I would also suggest that blackboard exercises be given before pupils use the text book, as the tendency is in algebra as in arithmetic to keep the thumb at the question and the other fingers at the answer.

H. P. DOLE.

Chipman, N. B.

### The Strathcona Horse.<sup>1</sup>

BY WILLIAM HENRY DRUMMOND.

Oh, I was thine, and thou wert mine, and ours the boundless plain,

Where the winds of the North, my gallant steed, ruffled thy tawny mane;

But the summons hath come with roll of drum and bugles ringing shrill,

Startling the prairie antelope, the grizzly of the hill.

'Tis the voice of the Empire calling, and the children gather fast

From every land where the cross-bar floats out from the quivering mast;

So into the saddle I leap, my own, with bridle swinging free;  
And thy hoof-beats shall answer the trumpets blowing across the sea!

Then proudly toss thy head aloft, nor think of the foe to-morrow,

For he who dares to stay our course, drinks deep of the Cup of Sorrow!

Thy form hath pressed the meadow's breast, where the sullen grey wolf hides,

The great Red River of the North hath cooled thy burning sides;

Together we've slept while the tempest swept the Rockies glittering chain;

And many a day the red Centaur hath galloped behind in vain!  
But the sweet wild grass of mountain pass and the shimmering summer streams

Must vanish forevermore, perchance, into the land of dreams;  
For the strong young North has sent us forth to battlefields far away,

And the trail that ends where ocean trends is the trail we ride to-day!

But proudly toss thy head aloft, nor think of the foe to-morrow,

For he who bars Strathcona's Horse drinks deep of the Cup of Sorrow!

<sup>1</sup> The most striking incident in the current history of Canada is the departure of the Strathcona Horse, a body of 500 mounted men, enrolled in the western provinces and territories, and sent to South Africa at Lord Strathcona's personal expense, forming the third Canadian contingent.

### Bird Study.

How many kinds of birds do you know?

Name some or all of them.

Do birds talk?

What kind of birds talk?

Can any other kinds be made to talk?

At what time of the year do birds sing the most?

Do birds stay here all winter?

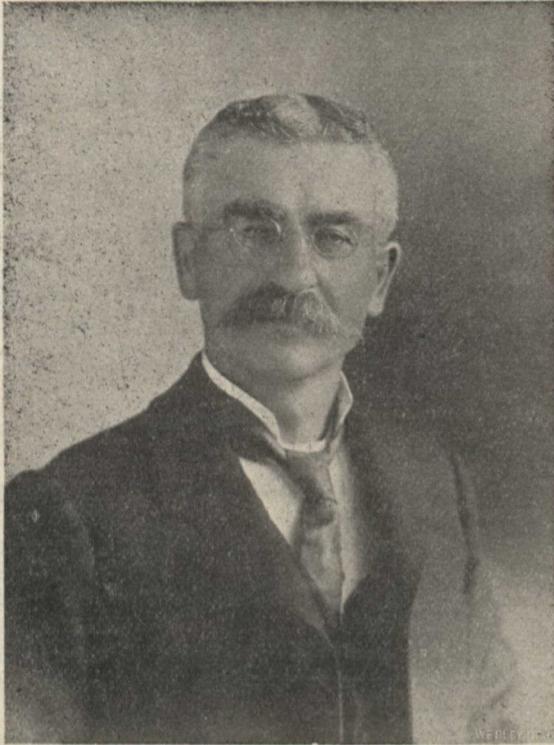
Why do they leave?

Do they all leave?

Name any that stay all winter.

—Midland Schools.

### Inspector M. J. T. Macneil.



M. J. T. Macneil, B. A., is Government Inspector of Schools for District No. 7, including the Counties of Cape Breton and Richmond, in which there are 204 school sections. He was born at Arichat in 1844. His father was the late Captain Norman Macneil, one of the foremost deep-sea navigators of Cape Breton. Mr. Macneil was prepared in the academy of his native town for St. Francis Xavier College, which he entered at the early age of 14. After a thorough training in classics, he graduated in 1862, but remained studying philosophy and teaching in the college for two years longer. His post-graduate course and experience in teaching under the able professors of the college was an excellent preparation for his subsequent career, first as a teacher and afterwards as inspector. For one year he had charge of St. Andrews' Grammar School, then, and for many years previously, the leading school in the county of Antigonish. He taught for three years in Arichat and a year and a half in D'Escousse.

In 1871 he entered into a business partnership with the late Inspector Benoit, of D'Escousse, whom he succeeded as Inspector of Richmond County. When county inspectors gave way to district inspectors, the late Alexander McKinnon, being inspector of Cape Breton County and his senior, received the appointment

for both counties but resigned in the winter of 1880-81, and was succeeded by Mr. Macneil who has held his present position for the last twenty years.

In the management of a large and difficult inspectorate he has shown much industry, administrative ability and tact. His scholarship and genial disposition secure for him the respect and affection of his teachers. His reports are characterized by an accurate, clear and business-like presentation of the facts relating to his district. In his last report we find valuable suggestions regarding the teaching of the metric system of weights and measures.

### The Devotion of a Mother-Bird.

The following striking incident was told by Mr. J. W. Banks, in his paper, *On the Birds of Rockwood Park*, read before the Natural History Society of New Brunswick. It illustrates the love and devotion of a mother-bird and the instinctive obedience of a young brood. It has been the privilege of but few naturalists to see what Mr. Banks records:

"And while I was sitting there so intently watching the Nuthatches, off to my right I heard the patter of little feet sounding like rain-drops on the dead leaves. Glancing in the direction I was delighted to see a "Mother"-Grouse or Partridge, with her pretty little brood of ten active little fellows, about four days old, all dressed exactly alike: the head, neck, and under parts light creamy-brown, darker brown on the back, and three brown stripes on the head. The mother, with every sense on the alert, kept always in the rear of her bright-eyed, hungry little group. Not a particle is swallowed by them till it is examined by the mother and given to the finder. Besides the fear of her little ones swallowing something harmful, there is the dread of such murderous foes as the wild cat, fox, skunk, mink, weasel, the hawk and the owl. When they got within ten steps of where I was sitting, the mother's quick eye caught sight of the danger. She gave a peculiar warning cry, and in an instant what a change! I had a glimpse of a scramble amongst these little "brownies," but my whole attention was taken up by the agony of the mother. She came rapidly towards me with both legs apparently broken, till she was so close that I could touch her with my foot, and lay there fluttering, precisely as I have seen them when fatally wounded. I turned to see how the little ones were faring. They had disappeared. I searched the place thoroughly; from where I sat there was not a sight or sound of any of them to be seen or heard. When I turned again to look at the mother, she was standing erect in a listening attitude. Possibly, some wireless telegraphy told her they were safe for the present. She turned in an opposite direction, walked a short distance, then started and flew about fifty feet and disappeared. I wished to see the second act in this wonderful drama, knowing that if in her brave endeavor to distract attention from her little ones while

they were hiding, she should lose her life, they would never leave their hiding places unless called by the mother's reassuring voice. I therefore left the place where I was sitting and concealed myself in some bushes a short distance away. In about ten minutes I saw her coming in precisely the same direction that I first saw her with her little flock, and if possible more vigilant than before. When she got to the same place where she had left them, she looked carefully in all directions and then gave a soft cooing call. Instantly these wonderfully trained "babes of the wood" sprang from their different hiding places and ran to meet the brave little mother, who had so successfully carried out her part of the manoeuvre. How pleased she was to gather them under her wings! and there was apparently a niche into which each little one fitted.

### The Best Teacher.

Summarizing the results of an inquiry among over 2,000 children as to their idea of the best teacher, in the *Western Teacher* Superintendent H. E. Kratz, of Sioux City, Ia., finds that the following are characteristic statements about the "best teacher:"

1. She could stand some fun.
2. She had no pets.
3. The children feel as if she was one of them.
4. The principal reason I liked her was because she liked me and showed it once in a while.
5. She always wanted me to be thoughtful.
6. Her actions helped me to do better.
7. If you did not get your lessons, she was so sorry that it made you ashamed.
8. She took a great deal of interest in us.
9. Put us on our honor.
10. Her manner seemed to give me an inspiration to work.
11. She never punished the pupils because she didn't feel good.
12. Never flew off the handle.
13. Does not scold us one time and then be awful good for a while.
14. Always meant what she said.
15. Always thought before she spoke.
16. Always got our attention.
17. She doesn't feel satisfied when her pupils don't have a good lesson.
18. She was interested in her pupils' habits and reading.
19. By making things pleasant I felt like working.

There is a city magistrate living in a New England town who is possibly raising a mathematical prodigy in the person of his three or four year old daughter. She has only recently begun to attend the kindergarten and yet meditates changes in the system of enumeration now in vogue which, while startling, are certainly suggestive.

When asked the other day to count, she hesitated some and then lisped:

"None, some, one, two, free, fore."

### CURRENT EVENTS.

Some of the German passenger steamers have adopted the Marconi system of wireless telegraphy as a means of communicating with the land on each side of the Atlantic. This will enable their passengers to send and receive messages while many miles distant from land.

There has been a decrease of the Indian population of Canada in the past year. This decrease has been entirely in the far west; and is accounted for partly by the fact that many of the Canadian Indians have crossed into Montana.

The terrible suffering from famine in India is increasing. Nearly five million persons are receiving relief. Some Canadian cities have contributed largely to the relief funds, and money is also being sent from the United States.

In an address delivered at the University of Pennsylvania, the Chinese minister to the United States spoke of English as the coming international language of the world. "It is spoken," he said, "in the streets of Shanghai, as well as in those of Hong Kong. It is taught in the schools of Yokohama as well as in those of Singapore. Chinese, Japanese, Germans, Russians and Frenchmen alike use it in their business offices, in their clubs, and in their family circles. In short, it may be called the commercial language of the Orient. Signs point to its ultimate adoption as an international tongue."

The Duke of Norfolk has resigned his office as a cabinet minister to go to the war.

As a part of the Spanish dominions, Porto Rico had free trade with Spain and representation in the cortes or Spanish parliament. Held now by the United States as a conquered territory, it has no representative in the national legislature; and, if the bill now before the United States congress becomes law, will have neither free trade with that country, nor the right which we enjoy of making its own tariff. Great suffering has resulted from the changed condition of the country, and urgent need is felt of government assistance to afford relief.

The occupation of Bloemfontein, the capital of the Orange Free State, by the British forces under Lord Roberts, which took place on the 13th of March, was the most important event of the month in South Africa. A deputation of the town council, with the mayor, came out to meet Lord Roberts at Spitz Kop, five miles south of the town, making a formal surrender of the place.

Lord Roberts made a state entry at noon. After visiting the public buildings he went to the official residence of the President, followed by a cheering crowd, who waved a British flag, and sung the British National Anthem. President Steyn, accompanied by other prominent officials, fled to Kroonstad, where he established his seat of government. Major-General Prettyman was appointed by Lord Roberts military governor of Bloemfontein.

Bloemfontein stands exposed on a high plain or vedt. It is a quiet, wholesome country place, with many trees

that partly hide from view the low, white buildings forming the larger part of the town. The population is made up of about 4,000 whites and as many blacks. The streets are laid out with much regularity, and there are some good public buildings, including the Raad Zaal (council hall) of the republic. Many of the inhabitants, either believing the British occupation to be permanent, or preferring to be governed by the British rather than by the rude peasants of the Transvaal, are laying down their arms and looking to our troops for protection.

The Boer cause has suffered a great loss in the death of their chief commander, Pieter Jacob Joubert. He died on the 27th of March from illness probably brought on by the exposure of the campaign. He was endearingly called by his followers "Slim Piet;" the word "slim," meaning sly or cunning, being according to their peculiar notions, a word of praise. He was, in every respect, the best of the Boer leaders. General White, the hero of Ladysmith, does not hesitate to call him a soldier and a gentleman, and a brave and honorable opponent.

The total losses to the British forces in South Africa, in killed, wounded and missing, now exceed 16,000.

The British forces met with a sharp though not serious reverse near Bloemfontein on the last day of March, at a place called Bushman's Kop. A convoy under Col. Broadwood fell into ambush; and being largely outnumbered, escaped only with the loss of seven guns and all the baggage. The Canadians were among the relieving party which saved the column from annihilation.

The captive General Cronje and 1,000 Boer prisoners have been sent to St. Helena.

The report of the annexation of the Orange Free State, or what remains of it, to the Transvaal republic says that the new flag of the united republics will be that of the Transvaal with the addition of a bar of orange. The "vierkleur" (four-color) of the Transvaal flag would thus become a "vijfkleur," and the only flag in the world that bears so many colors, exclusive of those on which many-colored coats of arms are displayed.

General Louis Botha succeeds General Joubert as commander-in-chief of the Boers.

A year without an American revolution would be remarkable. Just now there are two or three in progress. In Venezuela, Hernandez, the insurgent leader, has suffered a decisive defeat. In the United States of Colombia, the rebels have had some success, and the government is sending larger forces to oppose them.

It is rumored that the government of Korea has granted important concessions to Russia. Turkey, also, is said to have practically yielded to the Russian demands in respect to railway concessions in Asia Minor. In both cases, the extension of Russian influence means an extension of civilization and Christianity.

The Antarctic expedition under command of C. E. Borchgrevink has arrived at New Zealand, after passing a year in the polar regions. The expedition reached the farthest point south of which there is any record,

and succeeded in locating the south magnetic pole, which is, of course, some distance from the South Pole.

Portugal has given permission for the transport of British troops from the seaport of Beira, Portuguese East Africa, to Umtali, in Rhodesia. Beira lies north of Delagoa Bay; and the privilege is claimed under treaties that were in force before the outbreak of the war.

No other second chamber or upper house of legislature in the world has so much power as the senate of the United States. All treaties negotiated by the government of that country require the assent of the senate before they can go into effect. When the new treaty between Great Britain and the United States, in reference to the Nicaragua canal, came up for consideration in that body, the senate committee of foreign affairs offered an amendment which practically kills the neutrality of the canal, and would give the United States power to close the waterway in time of war. This may end in the treaty being rejected by our government.

The courts have decided that the settlers at Fox Bay, on the Island of Anticosti, can be displaced by the owner of the island; and an eviction which reminds us of the expatriation of the Acadians will follow. Arrangements are being made to settle the homeless people in the north of Cape Breton, where they will be welcomed.

Queen Victoria, who is now on a visit to Ireland, was most enthusiastically received on her arrival in Dublin, the ceremonies far surpassing those in London on the occasion of the great jubilee.

An attempt to assassinate the Prince of Wales at Brussels failed. The Prince was not even injured. The assassin was a boy, but it is supposed that Socialists prompted the deed.

On the Arctic coast of Canada, an explorer has discovered twenty miles of burning cliffs. Millions of tons of lignite are being consumed, giving out intense heat and dense clouds of smoke. On top of this burning cliff the country extends far inland in a level plain devoid of snow and ice; which would indicate that the burning coal strata extended horizontally beneath the surface. In some places the surface was so hot that a man could not walk upon it.

### An April Welcome.

Come up, April, through the valley,  
In your robes of beauty drest,  
Come and wake your flowery children  
From their wintry beds of rest;  
Come and over blow them softly  
With the sweet breath of the south;  
Drop upon them, warm and loving,  
Tenderest kisses of your mouth.

Call the crow-foot and the crocus,  
And the pale anemone,  
Call the violet and the daisy,  
Clothed with careful modesty;  
Seek the low and humble blossoms,  
Of their beauties unaware,  
Let the dandelion and fennel,  
Show their golden hair.

—Phæbe Cary.

### BUSY WORK.

Under this head each month there will be found exercises that may be used for silent seat work, class drills, and review work. Primary teachers are invited to contribute to this column any devices or plans they have found effective in keeping children profitably employed.

#### LETTER WRITING AMONG SCHOOL CHILDREN.

The last REVIEW contained a letter written by a school girl in England to one in St. John, N. B. This practice of boys and girls writing letters to the children in other countries has been adopted in many places with the best results. It gives a reality to the geography and history lessons; and the idea that a letter is to go to a distant place and be read by others is the very best incentive for careful work. Children should be taught at an early age the importance of writing letters neatly and correctly. A letter written by our beloved Queen when she was a child is a curiosity as well as a good model. A friend at one time sent a package of toys to the palace for the princess. The little Victoria was eight years old, and wrote a letter of thanks. This letter has been preserved and is given below. The writing is clear, and the paper looks very neat. All the words are spelled correctly.

Kensington Palace, 15th Jan.  
1828.

My dear Lady Downshire,

Dear Mamma allows me to have the pleasure of thanking you myself for all the very pretty things you and Lady Mary have sent me.

Pray give Lady Mary my love, and with mamma's best regards; Believe me,

My dear Lady Downshire,  
yours very sincerely,

Victoria.

Children need a great deal of drill in letter-writing to overcome faults which should be overcome in early years or they will cling to one through life. These faults are: They fail in readiness to say clearly and pointedly just what they wish to say; they fail to write correct English; they fail to write the address properly both within and without; they fail to use such stationery and to fold it in such a way, as to give the letter a neat appearance.

#### KINDNESS TO ANIMALS.

Teach kindness to animals. The following story may be read to children, and they may reproduce it in their own words. They may be encouraged to give other

incidents that they have observed or read of:

Little Fido was very thirsty, for it was a hot day, and his pan had not been filled with water that morning. Nobody seemed to understand how very, very thirsty he was. The cook drove him out of the kitchen when he pulled at her dress and whined, and when he tried to share Pussy's milk, she boxed his ears with her sharp claws. At last he saw little Lena sitting on the porch, and went to her, thinking she would know what he wanted. He took her dress in his teeth and pulled her toward the kitchen sink. Then he sat up on his hind legs and begged right hard. She climbed upon a chair near the sink, turned the faucet, and filled the pan with fresh, cool water for the poor doggie. He drank every drop, and then wagged his tail and put his cold nose into Lena's hand, as if he wanted to say, "You are my good, kind friend; thank you."

#### SEAT WORK FOR APRIL.

Let the pupils draw twigs of willow, pine, maple, oak, beech, alder, birch. Notice differences in each. Pick out from the catkins of the willow the little flowers, illustrated in the March REVIEW, and have the pupils draw them.

Draw a robin, crow, bluebird, bluejay, English sparrow.

Draw a hornet's nest or bird's nest suspended from a branch. (These ornaments are often seen in school rooms, brought in in the fall of the year).

Write out neatly, using a paragraph for each: Five parts of the hand; five parts of the face; five kinds of trees; five kinds of flowers; five fruits; five kinds of meat; five vegetables; five birds; five animals; five dishes for a table; five tools; five parts of a chair; five kinds of fuel; five kinds of stone; five rivers; five cities; five bays; five nations; five uses of wool; five uses of wood; five uses of iron; five uses of gold; five uses of water; five uses of leather; five uses of silver; five ways to ride; five holidays; five subjects you study; five inventors; five men who have written books.—*American Primary Teacher.*

See if your pupils can fill out properly the following blanks:

A horse's abode is called a ———.

A lion's abode is called a ———.

A fox's abode is called a ———.

A dog's abode is called a ———.

A rabbit's abode is called a ———.

A spider's abode is called a ———.

An eagle's abode is called a ———.

A hen's abode is called a ———.

A pig's abode is called a ———.

#### NUMBER WORK.

"Playing Store" is a device that may occasionally be used in a first grade number lesson. We will say

that the lesson embraces the additions and subtractions of ten. The number has been drilled upon, and the teacher and pupils have made up stories about them. When the interest begins to lag introduce playing store. There is a change. Every pupil seems to be transformed from an atmosphere of drowsiness to that of activity. First a storekeeper is chosen. It is best to select one who needs the drill. The little articles used in developing number are at once changed; the pegs to sticks of candy, the blocks to marbles, etc. Several pupils are given paper dimes with which to purchase. Each in turn buys what he wishes most. The storekeeper gives the articles and change, telling the amount the purchaser gave him, and also the amount of the sale. Then he tells the amount of change he returned, giving reasons for the same. If the change is wrong, the purchaser tells the storekeeper his mistake, which is rectified at once.—*Primary Education.*

#### A WEEKLY MOTTO.

One Monday morning I wrote these words on the board where all might see them:

*Kindness to Animals.*

Underneath I wrote four or five memory-gems on kindness. I then explained to my pupils that I should be very much pleased if they would choose this for their motto for the week, at the end of which I should expect them to have committed the "gems" to memory, and also, to have something to relate of their efforts to live up to their motto. Each morning I read a short story on kindness to animals which I required them to reproduce as language work. The results were very pleasing and the next week we chose a new motto.—*A. M. M. in School Journal.*

Our master, one day, in one of his suggestive teacher's meetings gave voice to this idea: "Why don't you teachers have class mottoes for your school-rooms?" Recognizing its value, "What would be the most appropriate one for my class?" was the thought that haunted me. Day after day I watched that class, pondering all the time on its needs. At last it came to me. These children are possessed with the nineteenth century idea of hurry. To get through with work laid out for them, to dabble a little at this or that lesson speaks volumes for the lack of concentrating power. Shiftlessness at home, unconsciously reflected in the school life, shows itself in all that they do. And reform must come. The best way to secure it was the next question, and a serious one, too. The motto idea served

as an inspiration for a little talk with the children. The text evolved from it was "Not how much, but how well." With this as a key-note, all the school-room work has been pitched in the same tone. It has been held to with might and main and has borne fruit. The children have co-operated, and the result has been better than a pessimistic mind could have believed, and an optimist would have increased his faith in the inherent good in childhood. By all means then have a motto and live up to it. It lightens labor; and if you can, as I did, enlist the services of a skilful artist to design for you pretty lettering and tasteful arrangement large enough for the schoolroom, and it is hung where all may read it, a halo will gradually grow about it, and the gray days of the schoolroom will become golden through its irradiating presence.—*F. G. P. in Primary Education.*

#### 'ROUND TABLE TALKS.

A correspondent asks the following questions:

- (1) On what amount should widows be assessed for school purposes who own property to the amount of \$600 or upwards?
- (2) Should young men paying poll tax be assessed on income?

(1) Where the whole property owned by a widow, as well in the place where she resides as elsewhere, is under the value of \$1,500, and such widow supports minor children of her own or of her deceased husband, her property in the parish where she resides, to the extent of \$200 and also to the extent of \$100 for each minor child wholly supported by her, shall be likewise exempt.

If the widow has no property in the parish where she resides, no exemption for school tax shall be allowed in the place where such property is situated.

(2) Certainly, and in amount according to their earnings.

M. J. L.—Please tell me the name of this bird. It has a crimson body, dusky wings with white bars across them, formed by the feathers being tipped with white. The tail is short and of the same color as the wings. Its beak is crooked, and it has black ears. It is about the size of the swallow, or a little smaller. These birds may be seen on a soft morning in winter tearing to pieces the spruce buds on which it feeds.

The white-winged cross-bill. The sharp crossed beak enables it to tear to pieces readily the hard parts of the cone to get at the seeds.

E. B. J.—An empty glass bottle weighing 6.66 oz. is filled with olive oil weighing 7.32 ounces. What is the specific

gravity of the bottle of oil? (K. & O'H.'s Arithmetic, page 3, Example VIII).

[This particular bottle is made of flint glass, though not so stated in the question.]

Specific gravity of flint glass = 3.33  
 " " olive oil = .915

$$\frac{6.66}{3.33} \text{ oz.} = 2 \text{ oz.} = \text{weight of water displaced.}$$

$$\frac{7.32}{.915} = 8 \text{ oz.} = \text{weight of water displaced.}$$

$$\frac{6.66 + 7.32}{2 + 8} = 1.398, \text{ specific gravity of the bottle of oil.}$$

G. L.—(1) Kennedy & O'Hearn's High School Arithmetic, page 27, Example I, Exercise 1. A man had a lot of eggs. He sold  $\frac{1}{3}$  of them at 10 cents a dozen,  $\frac{1}{3}$  at 12 cents, and 12 dozen at 15 cents. He had 31 eggs left which were spoiled. What did he get for his eggs?

(2) What o'clock is it when the time from noon is  $\frac{9}{11}$  of the time to midnight.

(3) A man walks a certain distance and then rides back in 3 hours, 25 minutes. He could ride both ways in  $2\frac{1}{2}$  hours. How long would it take him to walk both ways?

$$\begin{aligned} (1) \quad & \frac{1}{3} + \frac{1}{3} = \frac{8}{15} \\ & \frac{7}{15} = 144 + 31 = 175. \\ & \frac{1}{15} = 25 \\ & \frac{15}{15} = 375 \\ & \frac{1}{3} \text{ of } 375 \text{ at } 10 \text{ cts. a doz.} = \$1.04\frac{1}{6} \\ & \frac{1}{3} \text{ of } 375 \text{ at } 12 \text{ cts. a doz.} = .75 \\ & 12 \text{ doz. at } 15 \text{ cts.} = 1.80 \\ & \qquad \qquad \qquad \$3.59\frac{1}{6} \end{aligned}$$

The answer given in the book is wrong.

$$\begin{aligned} (2) \quad & \frac{9}{11} \text{ of time to midnight} = \text{required time.} \\ & (\frac{11}{11} + \frac{9}{11}) \text{ " " } = 12 \text{ hrs.} \\ & \frac{9}{11} \text{ " " } = 12 \text{ hrs.} \\ & \frac{9}{11} \text{ " " } = 5 \text{ hrs. } 24 \text{ min.} \\ & \qquad \qquad \qquad \text{or } 17\text{--}24 \text{ o'clock.} \end{aligned}$$

(3) Walks there and rides back in  $3\frac{5}{12}$  hrs.  
 Rides back in  $1\frac{1}{4}$  hrs.  
 Therefore walks there in  $2\frac{1}{6}$  hrs.  
 " walks there and rides back in  $4\frac{1}{3}$  hrs.  
 The answer in the book is wrong.

B. E. D.—(1) How much faster does the top of a wagon wheel go than the bottom?

(2) A note on the habits, etc., of the beaver would be helpful. I have outline drawings of many animals, but not of it.

(1) Any point on the circumference of a wheel which rolls along a straight line describes a curve called a cycloid. The motion of this point varies from 0 to twice the rate of the axle. That is, if the wheel moves forward at the rate of 10 feet per second, the rate of motion of a given point will vary from 0 to 20; and if the diameter of the wheel is four feet, the length of the

curve described by the given point for one turn of the wheel will be 16 feet.

(2) For information regarding the beaver, consult the Encyclopedia Britannica, or any good book on zoology. Some of the readers have interesting anecdotes about the beaver.

J. M.—(1)  $\frac{1}{4}$  of A's stock was destroyed by fire,  $\frac{1}{4}$  of the remainder was injured by water and smoke; he sold the uninjured goods at cost price, and the injured goods at a third of cost price. He realized \$1155. What did he lose by the fire?

(2) The receipts of a railway company are apportioned in the following manner: 48 per cent for the working expenses, 10 per cent on one-fifth of the capital, and the remainder, \$32000, for division among the holders of the rest of the stock, being a dividend at the rate of 4 per cent. Find the capital and receipts.

(3) For two papers and 30 cents a bonus is given of a knife valued at \$1.75; for one paper, or subscription, and 10 cents a knife is given. What is the value of the knife?

$$\begin{aligned} (1) \quad & \frac{1}{4} \text{ of goods destroyed by fire.} \\ & \frac{7}{8} \text{ of } \frac{1}{4} = \frac{7}{32} \text{ sold at } \frac{1}{3} \text{ of cost.} \\ & \frac{1}{8} \text{ of } \frac{1}{4} = \frac{1}{32} \text{ sold at cost.} \\ & \text{He received } \frac{1}{40} + \frac{1}{3} \text{ of } \frac{7}{32} = \frac{19}{120} = \frac{1}{12} \\ & \qquad \qquad \qquad \frac{1}{12} = \$1155 \\ & \text{Loss } \frac{1}{12} = \$12705. \end{aligned}$$

$$\begin{aligned} (2) \quad & \frac{4}{100} \text{ of } \frac{1}{5} \text{ of the capital} = \$32000; \\ \text{Therefore } & \frac{4}{100} \text{ of the whole capital} = \frac{5 \times 32000}{4} \end{aligned}$$

$$\text{And the whole capital} = \$ \frac{100 \times 5 \times 32000}{4 \times 4} = 1000000$$

$$\begin{aligned} & \frac{10}{100} \text{ of } \frac{1}{5} \text{ of capital} = \$20000 \\ \text{Therefore } & \frac{6}{100} \text{ of the receipts} = \$(32000 + 20000) \\ \text{And the receipts} & = \$ \frac{100 \times 52000}{52} = \$100000 \end{aligned}$$

$$\begin{aligned} (3) \quad & 2 \text{ subscriptions} + 30 \text{ cts.} = 2 \text{ papers} + \$1.75 \\ & 1 \text{ " } + 15 \text{ cts.} = 1 \text{ " } + .87\frac{1}{2} \\ & 1 \text{ " } + 10 \text{ cts.} = 1 \text{ " } + .82\frac{1}{2} \end{aligned}$$

### SCHOOL AND COLLEGE.

The village of Bear River, situated on both banks of a river of the same name which empties into Annapolis Basin, and which forms the boundary line between Annapolis and Digby counties, deserves special mention for its interest in educational matters. A few years ago it erected a modern school building well adapted for school purposes, and now maintains a school of six departments. The public interest in educational matters is further shown by the employment of a very efficient staff of teachers of more than local reputation, consisting of Principal Lenfest Ruggles, and Misses Margaret J. Dimock, Aurelia B. Banks, Lulu M. Phinney, Laura J. Harris, and Gertrude L. Fleet. On the invitation of the public-spirited citizens of the village, the Summer School of Science will hold its session there this summer. \*Those who attend the meetings will have an opportunity of seeing one of the most romantic spots in Nova Scotia.

Death has robbed St. George of its venerable schoolmaster, Mr. Thos. O'Malley. He had been in failing health for several months, but was always cheerful and hopeful. During the last few weeks bodily weakness triumphed over the strong will and cheerful spirit, and he was compelled to give up the struggle. The deceased was one of the last representatives in the province of the old-fashioned, warm-hearted, well-educated Irish schoolmaster. For many years he taught school in St. George, nearly every one of the young men of the village having been under his tuition at one time or another. He was greatly beloved for his warm heart and genial qualities, both in the family circle and outside of it. His funeral, which took place on Saturday morning, 10th March, from the R. C. church, was largely attended. Solemn high mass was celebrated by Rev. Father Lavery at nine o'clock. The procession was one of the largest ever seen in St. George, all classes and all ages being represented. Nearly one hundred school children, headed by the principal, Mr. Wm. Veazey, walked from the house to the church. Among the floral tributes was a very handsome cross from the teachers and scholars of the schools. Many a tear was shed as the body of the kind-hearted old schoolmaster and friend of boyhood days was committed to the dust.—*St. Andrew's Beacon.*

Since the last issue of the REVIEW, the Commissioners of Schools for Annapolis Royal have taken over from the contractors a new academy which ranks among the finest and most convenient structures of the kind in western Nova Scotia. It cost complete about \$10,000. There are eight large, well-lighted and well ventilated class rooms, in connection with each of which are two commodious cloak rooms. There is in addition a laboratory for the use of the academic department. The rooms are supplied with new and approved furniture. This building, together with its grounds, which are probably the finest school grounds in Nova Scotia, forms a school property highly creditable to the town of Annapolis Royal and which is not surpassed by that of any town of equal size in Nova Scotia. The staff of teachers now occupying this fine building are, Principal J. N. Creed, Mr. Joseph H. Crowe, Miss Bertha Ruggles, Miss C. Louise Harris, and Miss Martha Jack, all of whom are experienced and efficient teachers. Mr. Crowe and Miss Harris have been in the employ of this section for about ten years past.

By means of a pie social and a "geographical party," the Lower Woodstock, Carleton county, school, Miss Emma Dorcus, teacher, has realized the sum of \$15.41, with which the interior of the school house has been renovated and greatly improved. For the "geographical party," which was principally for the pupils, each came representing a county, town, or other place. One represented Andover by "And" printed on a card upside down; another represented Lowell by the letter "L" pinned on the bottom of a skirt; another Washington by the picture of a line of clothes and "2000 lbs." printed under; and so on. All were provided with pencils and paper; and at the end of the time allowed for guessing, the pupil who had the greatest number of correct answers was awarded the prize.

Mr. Judson F. Clarke, M. A., of Bay View, Digby, N. S., instructor in physiological botany, Cornell University, has been appointed one of the instructors in botany at the Cornell Summer School at Ithaca.

A fine programme has been arranged for the Annapolis and Digby Teachers' Institute which is held the 11th and 12th of this month at Middleton, N. S.

Under the direction of the teacher, Mrs. M. S. Cox, Anagance Ridge school, Kings county, N. B., has, by a concert, raised twenty-one dollars, which, with the government bonus, will be used to provide a school library.

The Berwick, N. S., school has contributed \$11.25 to the Indian Famine Fund. The school at Baxter's Harbor, Kings county, N. S., Miss Winnifred Sullivan, teacher, has raised four dollars, and the schools of Wolfville twenty dollars for the Canadian Patriotic Fund.

By means of a pie social at Mount Middleton, Kings county, N. B., Mr. G. Leonard McCain, the teacher, raised \$12.60, which was spent in procuring minerals and chemicals for the school. The trustees, during the last holidays, sheathed the inside of the school-room and placed blackboard surface around the room. This makes the building very comfortable and the school is now well equipped with apparatus for teaching.

### RECENT BOOKS.

These are the reminiscences<sup>1</sup> of a teacher who delights to recall the pleasures as well as the trials of a long experience in school. The twelve stories are nearly all about boys; and the teacher who reads of their peculiarities, their strength and weaknesses, will recognize counterparts either in the boys who went to school with him, or those who have been with him as pupils. The book is a suggestive one for teachers.

This series of readers<sup>2</sup> is an attempt to reproduce in simple language the results of teaching by observation and experiment some of the simplest phenomena of everyday life—earth, air, water, plants, animals, etc. The readings take the form of familiar talks at home, and are so arranged as to present a consecutive course leading from the simplest natural phenomena in Part I to what is more special in Part II. In the latter the pupils, in the same attractive way, recall how by modelling and other forms of representation, they have been led to consider the different forms of land and water—the sea, hills, valleys, rivers, islands, lakes, etc. The books are very suggestive of the way all such subjects as nature study and geography may be rendered so interesting that children will delight to talk about them at home, thus becoming a vehicle of language teaching, and drawing closer the bond between the home and the school.

Macmillan's Geography Readers<sup>3</sup> contain a series of stories in which ideas of political divisions, the form and shape of the earth, the sun's course in the heavens, the succession of the seasons, etc., are treated with great simplicity of style and language. They are for young children and will serve for useful supplementary reading.

<sup>1</sup> TALES TOLD OUT OF SCHOOL. By Edward S. Ellis, A. M. Price \$1.00. C. W. Bardeen, Publisher. Syracuse, N. Y.

<sup>2</sup> COMBINED READERS IN ELEMENTARY SCIENCE AND GEOGRAPHY. By Vincent T. Murché. Books I and II. Price 1s. each. Macmillan and Company, Publishers, London.

<sup>3</sup> MACMILLAN'S GEOGRAPHY READERS. Books I and II. Price 10d and 1s. The Macmillan Company, London. 1899.

In "Terence,"<sup>1</sup> Mrs. Croker has given us an entertaining and amusing story of the adventures of a party of English tourists and fishermen in Ireland. The heroine is an Australian heiress, unreconciled to fashionable life, and the hero, the last member of an ancient and ruined Irish family, who has thrown up his commission, and drives a coach to support himself and a disagreeable and extravagant grandmother. How he and Maureen D'Arcy are thrown together in a series of exciting adventures, including an all night ride to intercept the elopement of Maureen's married sister, and how the way is smoothed for their marriage, the reader is left to find out for himself.

Dr. Th. H. Rand's long looked for "Treasury of Canadian Verse" will be published in May. Many of the finest poems in the book will be published for the first time, and the series of biographical notes of the authors of poems will be a convenient and useful feature. The work has entailed on Dr. Rand a great amount of research. From his judgment and literary taste much is expected, and we feel sure that the Canadian public will not be disappointed.

<sup>1</sup>TERENCE, by B. M. Croker, author of "Infatuation," "Diana Barrington," "Beyond the Pale," etc. W. J. Gage & Co., Limited, Toronto, 1899.

#### APRIL MAGAZINES.

At the head of Canadian story-writers stands Gilbert Parker. Next to him the honors are fairly even between W. A. Fraser and Robert Barr, with the former gaining ground fast. Both Fraser and Barr have stories in the April *Canadian Magazine*

—stories which well illustrate the differences between the work of these two Canadians. In this issue there are some other excellent features, including two illustrated articles on Strathcona's Horse. . . . The April *Atlantic* opens—very appropriately to the season—with An Acadian Easter, a series of striking lyrics, by Francis Sherman, a New Brunswick poet, commemorative of the fate of castle La Tour and its fair commander on Easter Sunday 250 years ago. A Great Modern Spaniard, by Sylvester Baxter, brings to notice that there exists in Spain a modern literature which ranks with the best produced by other nations. . . . People who are contemplating a visit to Paris this summer will enjoy the pleasant sketch of Paris and the Exposition, which *The Living Age* for March 24 translated from a recent article by M. Gabriel Hanotaux. The Evolution of Literary Decency is the taking title of an article by Andrew Lang in *The Age* for April 7. . . . From the Talks with Napoleon, in the *Century*, it appears that the Emperor was so fully resolved to make his home in America, in the event of defeat at Waterloo, that he had bills drawn upon that country for whatever sums he chose to take. He told Dr. O'Meara that he had "spent sixteen millions of ready money," of his own, before the battle. "I have probably as much money as I shall ever want," he said at St. Helena, "but I do not know exactly where it is." . . . Elbridge S. Brooks, in *The Fight for a Language*, in *St. Nicholas*, treats in his familiar manner of the early struggle for English supremacy along the coast of Maine. . . . Rudyard Kipling's new animal story, *The Elephant's Child*, is a feature of the April *Ladies' Home Journal*. It is the first of a series of "Just So" stories, and describes, with Kipling's inimitable drollery, how the elephant got his trunk. . . . The Easter issue of *The Chataougan*, the first number of volume thirty-one, emphasizes the enlarged scope of this magazine for self-education. Stephen J. Herben reviews the Twentieth Century Thank-offering Movement in England, Ireland, Australia, Canada and the United States.

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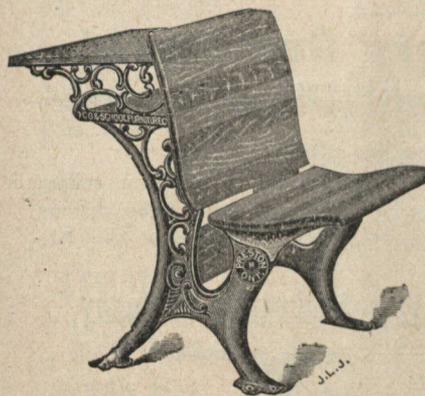
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