

PAGES

MISSING



SIR DONALD ALEXANDER SMITH, BARON STRATHCONA
AND MOUNT ROYAL, G.C.M.G., G.C.V.O.

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CONTENTS:

Editorial	201
Botany	202
Nature Study of Animals	203
Centennial Anniversaries of War of 1812	205
Medical Inspection of Schools	206
Number Work in Primary Grades	208
Useful Books	209
A Memory Lesson	210
"Dont's" for Letter Writers	210
For Friday Afternoons	211
Question Box	212
Excuses	212
Practical Examples in Arithmetic	213
Current Events	215
School and College	216
Recent Books	217
Recent Magazines	218

NEW ADVERTISEMENTS:—

J. & A. McMillan, p. 197; L'Academy de Brisay, p. 198; Geo. M. Hendry Co., p. 200; Webster's Dictionary, p. 219; Imperial Oil Company, p. 217.

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THE EDUCATIONAL REVIEW,
St. John, N. B.

We present this month as our picture supplement a portrait of Lord Strathcona.

There will be no supplement in April, but with the May number there will be sent a special picture for Empire Day.

The members of the St. John High School Alumnae have in course of preparation a history of the St. John Grammar and High Schools. They have found considerable difficulty in collecting correct lists of classes, medallists, etc., as the reports of the graduation exercises were apparently not as fully recorded or reported by the daily papers as at the present time. Any information that any member of the classes of the Grammar or High Schools previous to 1890 and of the classes of 1896 and 1897, especially in regard to class lists or regarding medallists, can send to Miss Lawson, President H. S. Alumnae, 274 Tower Street, West St. John, will be of immense value to the compilers of the history. Reports of the St. John Board of School Trustees for the years 1890-1896 inclusive are particularly wanted.

One of the lecturers in the course on Household Economics, recently given at the Natural History Society rooms in St. John, presented with much force the claim of Domestic Science to be an educating subject, not merely leading to skill in certain household arts, but assisting in the all round development of the pupil. The too-popular idea that Manual Training and Domestic Science are intended solely to turn out carpenters and cooks, needs to be combatted, and we hope to publish some of Miss Bartlett's arguments in a future issue.

The following extract from a recent novel sets forth suggestively the influence upon mind and spirit of intelligent and honest manual work. The hero is learning bookbinding.

He learned here for the first time in his life the meaning of his hands, and discovered their use. They gave his soul a new and inexplicable pleasure. Regular manual occupation steadied him, drawing off his earth energies and leaving his spirit clearer. As he sat at the sewing-press, or mechanically pared the edges of leather for the covers of his books, he meditated. Busy hands and dreaming soul balanced each other, and he felt sane, alive, untrammelled. The symbolic rightness of quiet work justified to him the existence of his body, and sometimes allowed him a glimpse of the gateway which leads to the heaven of the industrious.

Behind labour, he felt, there was something — "a spirit or power which blessed."

BOTANY.

L. A. DEWOLFE.

The new seed catalogues are now arriving, and I trust teachers have them on their desks where they and their pupils can study them. One of the most fascinating parts of gardening is the reading of descriptions of new flowers and planning where you will put them when spring comes.

Things learned by experiment are well learned. It is more economical, however, to profit as largely as possible by other people's experience.

Always consider where the plants are grown that the seedsman offers for sale. Often, a certain plant is described in a New York or Philadelphia catalogue as hardy. In that climate it probably is. But, unless you are acquainted with it, you do not know whether it is hardy in the Maritime Provinces or not. Frequently, some one who believes the seed catalogue buys seeds of a greenhouse plant and expects them to do well in the garden. Through bitter disappointment he learns how tender they are.

Two of the easiest ways to avoid such losses are (1) always plant well-known flowers that you or your neighbor have already proved; or (2) read what others have done in testing new flowers. I advise following both methods. The first gives you little variety. The second will enable you to have almost anything you desire.

To assist you in making selections, it is wise to write to Publications Branch, Department of Agriculture, Ottawa, asking for Bulletin Number 47. This gives a list of trees and shrubs tested in the Prairie Provinces of Canada; and therefore will give you the hardiest shrubs in cultivation. Ask also for the Catalogue of Trees and Shrubs in the Arboretum at the Experimental Farm, Ottawa; and for the List of Perennial Herbaceous Plants at the same Farm.

These lists give you an excellent assortment to select from. Anything that is hardy at Ottawa is surely hardy in the Maritime Provinces.

Very often you may want a plant of a certain *genus*, but don't know which *species* is best. These lists will help you:

Aside from the question of hardiness, the size, color and habit of the plant are important. Some plants spread rapidly. In such cases a

very few plants now would give you an abundance in a few years. The Lilacs and Spireas are very satisfactory for this reason. Such plants are good for back-grounds where there is room to spread.

The proper grouping of colors is an important feature in a good garden. The time of flowering must be considered with this. Plants in the same bed or border *that bloom at the same time* should follow some good color scheme.

One does not want all the flowers to bloom at the same time; for after their blooming season is over there is a long time without any flowers. Select, therefore, early, medium and late blooming varieties.

It is needless to say that tall flowers should not come in front of short ones. Neither should tall ones, in general, be on the south side of short ones. Most plants need good sunlight. Arrange them, therefore, in such a way that they will not shade each other. *Clarkia* is a rather attractive flower that likes a moderately shady place.

The vegetable garden is also worthy of consideration. The catalogues describe new and improved varieties of nearly every vegetable and grain. An experimental school plot where these could be tested is a grand thing. One should not try the new varieties on a large scale, however, until the government or some experimental farm has tested them. It is cheaper for the government to do it than for the individual. Furthermore, the government is likely to do it more scientifically. Read government reports, and know what they are doing each year in this line.

Lengthen the growing season as much as possible by using hot-beds or cold-frames. Any book on gardening will tell you how to make and use them. Girls might be interested in growing tomatoes, onions, cucumbers and cauliflower; and, in the autumn, making pickles from their own garden products.

I have a quantity of circulars giving interesting experiments with fertilizers. These apply to flowerpots, boxes, or garden plots. I also have circulars on school gardening. Anyone interested in such work may have copies of these leaflets free by writing to me at Fruro.

If any teachers have done or are doing any garden work, I should be interested in hearing

from them. Tell me how you liked it, how the children liked it and how the parents liked it. If any have questions relative to such work, send them along. If they are of general interest, I shall try to answer them through the REVIEW.

My wish now is that every teacher who has not a seed catalogue in her school get one. Encourage the children to study it. Get drawing exercises from it if you wish. Use it in every possible way. It will be the means of interesting some child in gardening. That is more important than interesting him in astronomical geography. It is also easier for the teacher.

NATURE STUDY OF ANIMALS.

H. G. PERRY.

The Beaver.

The beaver is our largest rodent, and one of our most interesting fur-bearers. He is a great worker, and his industry has become popularized in the phrase,—“Works like a beaver.” The beaver has also had a close connection with the early history of our country, and is a most fitting symbol of our nation.

But beavers are no longer plentiful. The ruthless havoc of trappers, Indian and white, in the days of Champlain and DeMonts, soon almost exterminated them. The broken mounds, and lines of earth works, now often found in clearings, stretching across the beds of former streams, or where even yet a brook may feebly trickle along, mark the sites of the once thronging life and the busy industry of beaver colonies.

Locate the sites of these old beaver-dams in your district. Study the location, picture the size of the pond. If you have not had a chance to visit a colony, read books on the subject, descriptions of their dams and houses, etc.; how they are built; the building materials, and how carried; and learn all you can about their food, habits, disposition, character, general appearance, and all other points of interest. Dr. Gilpin publishes an interesting paper, “On the Construction of a Beaver Dam,” in Vol. III., Page 152, of the “Proceedings of the Nova Scotian Institute of Natural Science;” also in Vol. V, we find by the same author,—“On the Dwellings of the Muskrat and Beaver in Nova Scotia.”

Though hard pressed in early days, scattered colonies remain today chiefly in the more remote parts. The formation of new colonies in forests is

often attended with loss to the lumber-man, both in the direct loss of trees cut by the beavers, and the killing out of trees by the water in the dam. What use does the beaver make of the trees he cuts?

In recent years several beaver colonies have moved over the national boundary line, from the State of Maine into New Brunswick, locating on brooks in Carleton and Victoria Counties. One such colony, in Carleton County, has settled on a brook near the site of an old beaver dam. The writer has had the pleasure of visiting this colony almost annually since its location, and every visit has shown progress from the beavers' standpoint,—more trees cut, larger dam, more water, and more houses.

Have the enquiring mind, and you may learn much about these animals and their ways from lumbermen, trappers, hunters, guides, etc.; and at least make the site of one of the best preserved of the old beaver-dams in your vicinity the objective point for a spring outing.

The Porcupine.

The porcupine can hardly claim a place of honor among our fur-bearing animals; nevertheless, nature has been somewhat kind to him, for he is well connected, being a rodent.

The large loose quills which form the principal covering of his back and tail, while forming a good defensive armor, have hindered his development along many lines. His quills have been the passport on every path, he has been given wide room among his neighbors. Thus left practically to himself, he has failed to develop the bright, active, vivacious side of animal nature, but has remained slow and dull.

Why do dogs and other animals leave him so severely alone? Is this knowledge experimental or intuitional? The history of your dog will help you to settle this point. The old belief that the porcupine is able to shoot its quills is quite erroneous; they are given off only by contact, and the dog that gets his mouth full of them, you may be sure, was doing something more than merely looking on. Why do these quills “work in” if left in the muzzle parts of the dog? Examine the outer tip of one with a magnifying glass, and note the close retrose barbs along the side.

If you have a chance to examine a porcupine closely, note the character of the body covering on different parts. Select a series of the units from

the largest quills to the finest hairs. What does this teach you about the quills? With what are they homologous?

Examine the feet and note their shape and color. How does this color compare with the body color both dorsal and ventral, and with the color of the mouth parts, ears and tail? Note the claws. Are they sharp or dull?

The porcupine is often found climbing trees. Why? It can hardly be to escape his enemies, for other animals give him little concern. Standing trees and fire-wood often show portions with the bark gnawed away and ornamented with teeth marks. Here we have a hint as to his food, which consists mainly of bark and green leaves. As far as I have observed, he seems especially fond of the bark of the maple and the beech. Which maple is his choice? Note other trees on which he sometimes feeds.

Among lumbermen he is often called the quill-pig, and they consider his roasted flesh as good as young pork.

Rats and Mice.

We mention rats and mice as rodents that should be studied only with a view to extermination. They are among the worst enemies with which man has to deal, and are dangerous pests wherever found. The only use they seem to serve is that of providing some people with a paltry excuse for keeping cats.

The ordinary house mouse is a contribution from India, and like our rats, which are also foreign, they still have the travelling instinct. "They travel back and forth, crossing the ocean in all sorts of ships. They also travel across the continent on trains. Wherever our food is carried they go."—*MRS. COMSTOCK.*

Among our native mice, the white-footed or deer-mouse, and the meadow-mouse, are most commonly found.

The deer-mouse lives in woods, and around clearings. They are reddish brown above, with white below, being noted for their beautiful white-pink feet; even the underside of the tail is white. They have large ears and eyes, and a long tail. This is our prettiest mouse, and makes a good caged specimen. If you have several in one apartment feed them well, otherwise you will find some missing, for they are strongly cannibalistic. These mice are active in winter and are mainly responsible

for the mice tracks found in the snow. Note the arrangement of the tracks and the tail mark.

The meadow-mouse is blackish in color, with a heavy body, short ears, and short legs and tail. This is the mouse that makes the runways or tunnels in the old grass and stubble under the snow. Look for the mouse-paths as the snow is going off. They tell us something about his winter life and habits. At times we find the meadow-mouse wintering in our dwellings, but he is more frequently found in barns, where he seems especially content if he is well supplied with grain. Here they nest, and breed even during the winter. Their nests with young are often found, the young being small, pink, hairless, blind little creatures, closely huddling together in the nest for warmth.

Look for the nest of the meadow-mouse in the fields. It is common during the haying season, often found torn and mangled by the raker. How does it compare with the nest in the barn? Of what does the house-mouse make his nest? The nest of the deer-mouse is sometimes formed from a deserted birds' nest, but more frequently it is built in old stumps, logs, hollow trees, or hay stacks.

Two kinds of rats have been reported in the Maritime Provinces,—the brown or Norway-rat, also called wharf-rat; and the black-rat. The latter is now very scarce, but in early colonial days was the only kind known. They have both been introduced from Europe, and their history in America illustrates very well the keen competition that often exists between even closely related species.

The black rat was first introduced into America about 1544. They multiplied and spread rapidly, and soon crowded out native species. How does this compare with the progress that the English Sparrow is making in America? These black-rats held the field till the introduction of the brown-rat about 1775, which in turn has practically exterminated the black-rat. Its fitness for the conditions of our country must be greater than those of the black species, and "the fittest survive."

Impress upon your pupils something of the great destruction to property by these small rodents, rats and mice. We quote some authorities on this subject:—"A single field-mouse devours in one year from twenty to thirty-six pounds of green vegetation, and a thousand mice in a meadow would require at least twelve tons annually. Damage is

done to meadows and pastures, to grains and forage, to garden crops, to small fruits, to nursery stock, to orchards, to forest trees, and to parks and lawns."—HEGNER.

The natural enemies of mice,—Owls, hawk, skunks, foxes, etc., perform a great service for man. How does man reward them? Such facts should be brought to the farmer's notice. The shooting of one owl or the trapping of a skunk may mean a ton less of crop, for, if man disturbs nature's balance, he must pay the price!

"The rat is the worst mammalian pest known to man. Its depredations throughout the world result in losses amounting to hundred of millions of dollars annually. But these losses, great as they are, are of less importance than the fact that rats carry from house to house and from seaport to seaport the germs of the dreaded plague."—LANTZ.

The amount of loss due to rats in the United States is not known; in Germany the loss is estimated at \$50,000,000 per year.—HEGNER.

Birds.

May I ask the readers of the "REVIEW" to kindly send me lists of winter birds found in their localities. We cannot emphasize too strongly the importance of bird study. It is often the door to the whole field of nature study. If you have not begun Nature Study in your school, or if you find it a drag, here is a stimulant, a real tonic, that will soon restore health and vigor. Begin at once to prepare lists, if not in process already. The interest you arouse will be a good index of your own enthusiasm.

Please report on postal cards. May I *insist on postal cards* as they are easily kept on file, and are more readily tabulated. If one card does not give you enough space send two, three, or more. Rule a card, the long way. (A card will readily give twenty lines for writing) In the top space, write:—"Report from." (Naming locality, County and Province, and date of sending;) on second line, write:—"Made by" (here give your name and school.) From the second line to the bottom of the card rule a line reserving a space to the left of about an inch and a half, head this space, on the third line, "Name of bird;" follow by two other cross lines making two columns about one inch each; head these:—"Dates seen," and "Numbers seen;" head the column to the right, which will be nearly two inches wide,— "Remarks." Fill in data and

send the cards to me, directed to Wolfville, N. S., mailing them not later than March 25th.

Keep also lists of spring migrants as they arrive, and report on cards by the 20th of each month. Rule the cards about the same as already directed. See the accompanying plan.

The plan for ruling and heading cards for reporting spring migrants has been adopted from "Bird Lore," and is as follows:—

Report from. (Here name locality, County and Province, and give date of sending).					
Made by. (Here give name, and name of school).					
Name of Bird.	Date first seen.	No. seen.	Date next seen.	No. seen.	Date of becoming common.
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I will tabulate results and publish in the April REVIEW.*

CENTENNIAL ANNIVERSARIES OF THE WAR OF 1812.

J. VROOM.

XX.—THE BATTLE OF LACOLLE MILL.

March 30.—In the middle of March, 1914, General Wilkinson began his last movement against Montreal, a movement which was to end in the final disaster of his inglorious military career.

Advancing along the shores of Lake Champlain, the route followed by Dearborn in 1812, and by Hampton in 1813, he crossed the Canadian boundary on the morning of the thirtieth of March. He had with him an army of about four thousand men. The British forces in Lower Canada were scattered, guarding different points. Their strongest position was on the Lacolle River, a branch of the Richelieu, where there was an old stone mill which had been converted into a fort. This improvised fort lay about eight miles north of the boundary line; and was held by not more than two hundred British regulars. The invaders, when they reached the place, after some delays and difficulties, sent six hundred men across the Lacolle, and attacked

* See Professor Perry's Notice of "The Bird Note Book," page 209 of this issue.

the mill from three sides; but their light artillery had little effect upon its strong stone walls. Reinforcements for the British arrived from two directions, and nearly doubled the number of the defenders; but still the enemy outnumbered them ten to one, or counting those actually engaged in the battle, more than two to one. The relieving parties took possession of a wooden blockhouse near the mill, but on the other side of the stream. Twice they charged the enemy's guns, but they were driven back. That they were able to hold the blockhouse was remarkable. As evening drew on, the firing ceased. The British strengthened their position during the night, expecting the attack to be renewed next day; but before morning came the invaders had disappeared. Without apparent reason, Wilkinson withdrew his army and retreated to Plattsburg; and a few days later he was relieved of his command. He was afterwards tried by court martial; but was acquitted on the ground that he had followed his instructions.

According to the testimony of their enemies, the conduct of the British troops on this occasion was distinguished by desperate bravery. The mismanagement and failure of the invasion would have been an event as notable as the failures of Dearborn and Hampton, had not another invasion, a few months later, crossed the frontier in the opposite direction to end in more lamentable failure. The affair at Lacolle Mill we may recall with pride, but Plattsburg has other associations.

Subscribers sometimes write to us "I do not understand the meaning of the number on the address label of my REVIEW."

Each issue of the paper bears its number in the upper right hand corner of the title page. The number of this issue, March, 1914, is 322. April will be number 323, and so on.

If your address label bears the number 322, your subscription is paid to April 1, 1914. If you have paid only to April 1, 1913, your number is (322-12) 310.

Every time you pay a year's subscription we add 12 to the number opposite your name in the mailing list, and the number on your address label is changed to correspond. If your number is 314, that is, if you have paid only to August 1, 1913, and you send us one dollar, we shall have much pleasure in changing the number to 326, signifying that you have paid to August 1, 1914.

MEDICAL INSPECTION OF SCHOOLS.

"The Public Health Journal" for February devotes a series of special articles to the great question of Medical Inspection of Schools. The editor, commenting upon the value of this work, says:—

"Still in its infancy, medical inspection of schools has demonstrated its worth and has shown what a valuable contribution it can be to the educational systems of Canada. Its establishment in some of our cities and towns is but the logical outcome of the desire to see the child-life of the community given the best possible chance for development. A child cannot learn unless he is healthy; a child cannot be happy unless he is healthy; the child as father of the man must be healthy or our whole nation will decay. A great host of the troubles flesh is heir to are preventable. There is no need for thousands of children being consigned to early graves, or stunted and deformed manhood. Medical inspection of schools, carried out properly, will show us the defects and what we ought to do to remedy them."

Dr. Struthers, Chief Medical Inspector in Toronto, contributes an interesting and full report of the medical inspection carried on in Toronto schools. "There is today," writes this experienced physician, "such persistent neglect of the laws of health, and outrageous violation of the laws of the human body, that there is plenty to do to teach even the most rudimentary truths, and to care for manifest physical defects and disease. It is not the children of the ignorant, the intemperate, the vicious, or the too-busy only who suffer from the parent's lack of knowledge. It is astounding to learn the extent of prejudice and superstition in regard to health matters among otherwise well-educated people."

The work of medical inspection was begun in the Toronto schools in 1910, and has rapidly increased in scope. Today, the total staff comprises a chief medical inspector on whole time in charge of the department; twenty-one medical inspectors on part time; one dental inspector and four dental surgeons on part time; one superintendent of nurses and thirty-seven school nurses on whole time. The city is divided into twenty districts with a medical inspector and two nurses in charge of each. The medical inspector and nurses of each district are expected to have an accurate knowledge of the prevalence of disease, sanitary conditions,

home environments and cleanliness, and the number of indigent families in their districts.

It should be noted that the progress and success of the work in Toronto owes much to the efforts of Mr. John Ross Robertson of the "Evening Telegram," to the Local Council of Women, and to the intelligent and sympathetic support of certain members of the School Board.

In Winnipeg, two medical inspectors, on part time, four nurses, and two clerks who do all the writing of notices and records, are employed. The inspectors receive \$1000 a year each. This city has also "A Little Nurses League," managed by a nurse who is on the permanent staff of teachers, and who holds classes during the summer, to instruct upper grade girls how to feed and care for children.

The Calgary Board of Education employs two doctors and a nurse. The doctors spend one-half of each school day in the schools. Their salaries are respectively \$125 and \$100 a month, and the nurse receives \$75 a month.

Regina, with a population of 45,000, has two nurses, on whole time, one drawing \$1300, the other \$1000, a year. "Little Mother's" Classes are held and in one school, a dental clinic.

In Saskatoon, there is a medical inspector, and two graduate nurses give their whole time to the schools, receiving salaries of \$1200 each. In six weeks these nurses visited 168 schools and fifty-eight homes.

The discussion on Medical Inspection of Schools at the meeting of the Canadian Public Health Association in Regina last year aroused interest in the West, and directly after this convention, Prince Albert, Sask., engaged a school nurse at a salary of \$1000.

Edmonton began this work in 1910, and now has a medical inspector on full time, with a salary of \$3500, and two nurses.

The East, so far, lags behind in this movement. But the Halifax School Board, as early as 1909, appointed two medical inspectors, who are now paid \$300 a year each, for part time service. A school nurse is being appointed, at a salary of \$600, and will begin her work in May.

In Truro, medical inspection of schools is carried on under the direction of the town's health officer.

Amherst owes her system to the public spirit of the medical men of the town, who, to demonstrate the need of and the benefits resulting from inspec-

tion of the schools, have given their services gratis since 1911. The school nurse who assists them, gives her whole time to this duty, and her salary is paid by a lady interested in the work.

Medical inspection aims at the prevention of disease and the correction of defects and deformity in the child, in order to develop strong and healthy men and women. While the end in view is the same, the methods in different cities vary with the needs of the communities, and the resources at the disposal of the workers. In most places, the inspector, either directly or through the school nurse, calls the attention of parents or guardians to any condition requiring medical attention. Great care is taken to avoid any embarrassment or offence to either child or parent. The school nurse gives attention to cases of uncleanliness, skin eruptions, and insufficient clothing. The teaching of personal hygiene; tooth brush drills; nose-blowing drills; testing the eyes and fitting with glasses; securing treatment for neglected teeth, for diseased tonsils, and for adenoids, are branches of the valuable service of the school nurse, not only in the school, but in her visits to the homes. She has the cordial co-operation of both teachers and parents, and is a much-needed link between home and school.

The standard of health and cleanliness is being steadily raised. Already the dirty, unsanitary schoolroom is becoming a thing of the past. We are spending money freely on the ventilating, heating, and cleaning of our school buildings. To ensure that they shall be occupied by clean and healthy children, medical inspection seems to be the next necessity.

I have found by experiment that over feeding with starchy foods produces animals that are weak and irritable. And I see women, ignorant of the principles of diet, feeding their children with starchy foods, and producing the same results. We think it necessary to teach our men how to feed animals, but we expect our women to feed and care for babies by instinct.— J. W. ROBERTSON.

Home Rule for Ireland is the most important question to come before the British Parliament at its present session. The threats of a rebellion in Ulster if the Home Rule bill becomes law are less violent than they have been, yet it is not improbable that there will be some disturbances.

It is not what a thing costs that makes it great; the Good Samaritan spent twopence in doing the most famous deed of charity in all history.

NUMBER WORK IN PRIMARY GRADES.

GERTRUDE C. COUGHLIN.

The ideas on number work given in a recent REVIEW were very general. I shall now try to give more particular work.

Let us begin with grade one, and assume that the children are familiar with the numbers as far as 5. The next step is to teach combinations of these numbers, no result being greater than 5. Too much stress cannot be given to the teaching of combinations, and by that I do not mean to allow a pupil to count. He should have a picture of 4 as soon as he sees $1+3$; $2+2$; $0+4=4$; because he has been drilled on these. Tell him again and again that the only number in the world that he could put with 1 to get 4 is 3; also that if he was given a 3 the only number to put with 3 to give 4 is 1. He will be encouraged when he learns that he has only to learn $1+3=4$, $2+2=4$, $0+4=4$, and that he will then know the only numbers that will give 4 when added. Of course you will teach combinations to give 1, e. g. $0+1=1$; and 2, e. g. $1+1=2$, $0+=2$; these being the only numbers that will give 1 and 2. Also those to give 3.

Be sure to have the pupil master the combinations of 2 before proceeding to 3. It seems to me that the neglect of this principle is what leads to the trouble later on when the child is introduced to arithmetic. Let me say right here, *never, never*, allow a child to count, either marks or on his fingers, because when he is allowed to do this, number work to him is simply counting, and he will never make any progress in arithmetic until he is broken of that habit.

When you are teaching combinations concretely, lead the pupil to see that 2 boys and 3 boys are 5 boys, that is have them think 2 and 3 give 5 and not $1+1+1+1+1$ give 5. Also lead them to see that if $2+3=5$, so $3+2=5$, because the latter is just the former read backwards. I used to tell the children it was the same as though we said their names backward; they would still mean the same person.

When combinations of the numbers up to 5 are learned, teach 6 and on up to 10, but teach addition combinations first. The following are examples on combination work:

$$2+0=2; 1+1=2.$$

$$2+1=3; 1+2=3; 0+3=3; 3+0=3.$$

$$3+1=4; 1+3=4; 2+2=4; 0+4=4; 4+0=4.$$

$$4+1=5; 1+4=5; 2+3=5; 3+2=5;$$

$$5+0=0+5=5.$$

$$5+1=6; 1+5=6; 4+2=6; 2+4=6;$$

$$3+3=6; 0+6=6+0=6.$$

$$6+1=1+6=7; 5+2=2+5=7; 4+3=3+4=7; 7+0=7+0=7.$$

$$7+1=1+7=8; 6+2=2+6=8; 5+3=3+5=8; 4+4=8; 0+8=8+0=8.$$

$$8+1=1+8=9; 7+2=2+7=9; 6+3=3+6=9; 5+4=4+5=9; 0+9=9+0=9.$$

$$9+1=1+9=10; 8+2=2+8=10; 7+3=3+7=10; 6+4=4+6=10; 5+5=10; 0+10=10.$$

This table is built up by degrees. Put the first combination on the board and have the pupil finish the line.

A subtraction combination table is built up on the same idea. Subtraction is more easily taught through the addition idea.

e. g. $1-1=0$; $2-1=1$, because you must put 1 with 1 to get 2.

$$2-1=1; 2-2=0.$$

$$3-1=2; 3-2=1; 3-3=0.$$

$$4-1=3; 4-3=1; 4-2=2; 4-4=0.$$

$$5-1=4; 5-4=1; 5-3=2; 5-2=3;$$

$$5-5=0, \text{ etc.}$$

Also a multiplication combination table.

$$\text{e. g. } 0 \times 2 = 0.$$

$$1 \times 2 = 2; 2 \times 1 = 2.$$

$$2 \times 2 = 4.$$

$$3 \times 2 = 6; 2 \times 3 = 6.$$

$$4 \times 2 = 8; 2 \times 4 = 8.$$

$$5 \times 2 = 10; 2 \times 5 = 10.$$

In teaching a multiplication table it is as necessary to teach 0×2 as to teach $3 \times 2 = 6$, the cipher is met with in multiplication as often as any numeral. The only multiplication combinations taught in Grade 1:

$$0 \times 3 = 0.$$

$$1 \times 3 = 3; 3 \times 1 = 3.$$

$$2 \times 3 = 6; 3 \times 2 = 6.$$

$$3 \times 3 = 9.$$

$$\text{And } 0 \times 4 = 0.$$

$$1 \times 4 = 4; 4 \times 1 = 4.$$

$$2 \times 4 = 8; 4 \times 2 = 8.$$

In the same manner teach the division table. Try teaching it through the multiplication combination: e. g. There are 3 2's in 6 because it takes 2 3's to give 6.

Practical work on tables. Fill in blanks.

- 1 boy has—eyes.
- 4 boys have—eyes.
- 3 boys have—eyes.
- 2 boys have—eyes.
- 1 stool has 3 legs.
- 3 stools have—legs.
- 2 stools have—legs.
- 1 table has 4 legs.
- 2 tables have—legs.

SECOND GRADE WORK.

Teaching new numbers. Teaching numbers from 10-20.

Teach 11, 12 and 13, through cards and calendars. When they learn that to place a 1, that stands for 10, before a 3, makes 13, then tell them that 10 added to 3-4-5-6-7-8-9 makes a teen, and the teen is named after the number before which the 1 is placed; if before 4, the result is 4-teen; if before 7 the result is 7-teen, and so on.

Here introduce combinations with 10.

- $10+1=11$; $1+10=11$.
- $10+2=12$; $2+10=12$.
- $10+3=13$; $3+10=13$.
- $10+4=14$; $4+10=14$; and so on until $10+10=20$ is reached.

Now we are ready for combinations of 11.
e. g.

- $10+1=11$; $1+10=11$.
- $9+2=11$; $2+9=11$.
- $8+3=11$; $3+8=11$.
- $7+4=11$; $4+7=11$.
- $6+5=11$; $5+6=11$; also of 12, 13, 14, on up to 20.

Second grade pupils will readily build subtraction tables from addition tables, because they have learned the principle in grade 1, e. g., because $2+3=5$, $5-2=3$; $5-3=2$, so if $10+1=11$, $11-1=10$.

This is followed by teaching the numbers ending in 0. Teach that an 0 placed after any number makes a "ty." For instance place 0 after 2, the number is twenty; after 3, the number is thirty; after 5, the number is fifty.

Look at the first number, name it and place "ty" on the name and you have the name of the number. (e. g. $70=Seven\text{-}ty$; $90=Nine\text{-}ty$). The only exceptions are 20, 30 and 50, and

these must be taught separately; but the children will see how awkward it would be to say two-ty or five-ty.

Next the numbers between 20 and 30 are taught. Place 20 on the board. Pupil reads it, erase 0 and substitute the figure 1.

Teacher:—What number had we.

Pupil:—20. What number did I put in place of 0. Ans. 1. Then Bessie will read the new number, saying the number added. The child reads 21. They will soon become familiar with the twenties, and will read the thirties, forties, etc., when shown to them.

BUSY WORK ON NUMBERS.

How many pages in your reader?

How many lessons in your reader?

Write all the numbers ending in "0" up to 100.

Write the numbers ending in "2" as far as the fifties.

USEFUL BOOKS.

"The Bird Note Book, No. 1."

The Bird Note Book, No. 1, by Mrs. Anna Botsford Comstock, Assistant Professor of Nature-Study, Cornell University, with outline drawings by Louis Agassiz Fierres, is an important addition to the bird-books available for school work. It is as its name indicates, primarily a "Bird Note Book," so arranged as to insure fairly uniform and independent work in even large classes. This valuable aid to this phase of Nature Study will find a ready welcome with all teachers and lovers of bird-study.

The book is in the letter-pad form, $5 \times 7\frac{1}{2}$ inches, 174 pages. The first part of it is devoted to notes, sets of questions on the birds under observation, with spaces for the student's answer; this is followed by sheets of drawing paper, on each of which the artist has placed his drawing in outline of one of our more common eastern birds. Thirty birds, all of which with few exceptions are found in the Maritime Provinces, are thus depicted in some characteristic position, and ready for color marking.

Publisher:—The Comstock Publishing Co., Cornell Heights, Ithaca, New York, Price, 30c. "Liberal discount allowed to schools using large numbers 12 — 25 and upwards."—H. G. P.

N. B.—This Note Book is to be followed about March 1st, by a No. 2, on the same plan. Price, 30c.

A MEMORY LESSON,

Miss Emerson explained that the youngest pupils had just been dismissed, and that "Memory Work" was the next lesson, carried on simultaneously in all the classes.

"Our object is to learn as many lines as possible in the forty-five minutes assigned to that work."

"But is not forty-five minutes a long period for one subject?" I asked.

"We do not find it so with Memory Work. In fact, at the children's request the time is sometimes extended to an hour."

The children were all studying quietly.

"And how do you occupy the time during their study period?"

"Well, you see I have a book of poems; I learn as many lines as I can during the period."

"Do you recite your lines aloud?"

"Yes, the children understand that I am a student with them; and that knowledge increases their interest."

For Memory Work, the school was divided into two classes. The senior class was learning "The Lady of the Lake," the junior class made a choice from Stevenson's "Child's Garden of Verses." Each pupil was allowed to learn his own selection.

"There is no rivalry among the pupils in this lesson; but each pupil is trying to learn today more lines than he learned yesterday."

"Do you explain nothing?"

"Only when a pupil asks the meaning of a word or of a peculiar expression. Sometimes I ask them the meaning of certain lines; if they cannot give the explanation, I drop the matter. Some pupil will probably ask the same question before the lesson ends. I have found it far better to stimulate curiosity than to take extra pains to satisfy a curiosity that is not yet ripe."

When the time arrived for recitation, each pupil, as called upon, told the number of lines learned; but that number was not always recited. It was evident that previous lessons had been accompanied by the most thorough drilling in proper methods of reciting poetry; for the children recited as they would talk — there was no "sing-song." They listened eagerly to one another, and even more eagerly when the teacher recited her selection, and made a hasty drawing on the board to illustrate its meaning.

"Now, we all learn one verse together in this way,"

said the teacher, as she drew aside the curtain and showed one verse neatly written on the board.

The children studied the verse carefully, raising hands when they were ready to recite. When five hands were raised, the teacher arranged the curtain so that it covered all but the first two words of each line:

The curfew —
The lowing —
The ploughman —
And leaves —

After four children had recited the verse, aided by the words in sight, the entire verse was hidden, and it was then repeated by several others.

At the close of the lesson, ten pupils were sent to the board and told to write any four lines of any selection they chose. This work was not corrected; but the teacher wrote "Correct" under the verses that had no mistakes. — *From H. F. Spinney in "The School." — Little Journeys to Rural Schools.*

SOME "DONT'S" FOR LETTER WRITERS.

1. Don't end a letter with the words "and oblige," unless they are grammatically connected with the preceding sentence. *e. g.* Don't write, "Please send the books by mail. I enclose stamps for postage. And Oblige
yours truly,

Jane Smith."

But, "Please send the books by mail, and oblige
Yours truly,

Jane Smith."

2. Don't begin the words in the closing phrases with capitals. *e. g.*, not "Yours Truly" but "yours truly."

3. Don't write "enclose," when you mean "enclosed." *e. g.*, not "Enclose find five dollars" but "Enclosed find," etc. This is a very common mistake.

4. Don't be afraid of the pronoun "I," and write such phrases as, "Went to town on Wednesday. Saw Aunt Mary and did some shopping. Was very busy all last week. Hope your cold is better." This sounds awkward and ungracious.

Many Canadians are under the impression that we are spending more on education than other countries. This is a delusion. As a matter of fact, on a per capita basis, Canada stands low among civilized nations. — J. W. ROBERTSON.

FOR FRIDAY AFTERNOONS.

Pussy Willows.

The fairies were sleeping the long winter through;
But there came a March day, when the sky was so blue
And the sun was so warm that they lifted their heads
Then most of them wisely went back to their beds.

But the young fairies begged of the fairies more old,
"Oh please let us fly out! We don't mind the cold."
"Well put on your hoods then, awhile you may go,
But come just as soon as we call you below."

So every small fairy put on a grey hood,
And, oh, such good times as they had in the wood!
They went back, when called, to their beds and their
pillows
But they left their grey hoods hanging up on the willows.

—Selected.

The March Wind.

The bluff March wind came whirling along,
Before the peep of day,
He flew o'er the fields, and whistled a song,
As he dashed and danced on his way.
With a shout he tossed the lingering snow,
And the tiny brook set free.
He called to the sun, "Ho! Ho! Ho! Ho!"
What a merry March wind was he.

Then he dashed through the forest, and called to the trees,
"Wake up: 'tis time to arise."
He laughed at their cry, "We freeze, We freeze,
We must wait for warmer skies."
He blew the snow clouds from on high
As he sang aloud, in glee,
He whistled to all, "Good-bye, Good-bye."
Such a frolicsome wind was he.

—Selected.

The Wind.

I saw you toss the kites on high
And blow the birds about the sky;
And all around I heard you pass,
Like ladies' skirts across the grass—
O wind, a-blowing all day long!
O wind, that sings so loud a song!

I saw the different things you did,
But always you yourself you hid.
I felt you push, I heard you call,
I could not see yourself at all—
O wind, a-blowing all day long.
O wind, that sings so loud a song!

O you that are so strong and cold,
O blower, are you young or old?
Are you a beast of field and tree,
Or just a stronger child than me?
O wind, a-blowing all day long.
O wind, that sings so loud a song!

—Robert Louis Stevenson.

Why Cats Wash After Eating.

You may have noticed, little friends,
That cats don't wash their faces
Before they eat, as children do
In all good Christian places.

Well, years ago, a famous cat,
The pangs of hunger feeling,
Had chanced to catch a fine young mouse,
Who said, as he ceased squealing:

"All genteel folks their faces wash
Before they think of eating!"
And, wishing to be thought well bred,
Puss heeded his entreating.

But when she raised her paw to wash,
Chance for escape affording,
The sly young mouse said his good-bye,
Without respect to wording,

A feline council met that day,
And passed in solemn meeting,
A law forbidding any cat
To wash till after eating.

Pussy Willow.

"Oh! you pussy willow,
Pretty little thing,
Coming in the sunshine
Of the merry spring,
Tell me, tell me, pussy,
For I want to know,
Where it is you come from—
How it is you grow?"

"Now my little children,
If you look at me
And my little sisters,
I am sure you'll see
Tiny little houses,
Out of which we peep,
When we first are waking
From our winter's sleep.

"As the days grow milder,
Out we put our heads,
And we lightly move us
In our little beds;
And when warmer breezes
Of the springtime blow,
Then we little pussies
All to catkins grow." —Selected.

Lady Moon.

How to tell her age)
O Lady Moon, your horns point toward the east
Shine, be increased;
O Lady Moon, your horns point toward the west
Wane, be at rest.

—CHRISTINA ROSSETTI.

The Wind.

Who has seen the wind?
Neither I nor you.
But when the leaves hang trembling,
The wind is passing through.

Who has seen the wind?
Neither you nor I.
But when the trees bow down their heads,
The wind is passing by.

—Christina Rossetti.

THE QUESTION BOX.

S. J. B. asks to have the following questions answered:

1. Is an intransitive verb inflected for Voice?
2. Give the mood of the verbs in the following sentence, with reasons: "If I (a) had been in his place I (b) would have paid the money."
3. Is it necessary to make two clauses of the following sentence in analyzing it: "He was across the street, but in the shade."
4. What is the difference between He is gone, and He has gone?

1. The passive voice in English is not formed by inflections; and strictly speaking, intransitive verbs have no passive voice.

2. (a). Subjunctive. A supposition contrary to fact.

(b). Subjunctive. Consequent clause after a supposition.

3. No, not necessary. We should consider it optional.

4. Both verbs are in the present perfect tense. But in saying, "He is gone" we think rather of his present condition; in "He has gone" of the act of going.

A correspondent asks for some facts about Agnes Maude Machar,* who is known also by her pseudonym "Fidelis." A brief sketch of this writer's life and work, with some extracts from her poems, will be found in the REVIEW for February, 1908. The collected edition of her poems is called "Lays of the True North and other Canadian Poems" and was published in Toronto in 1899, and 1902, and reviewed in the "Canadian Magazine" for December, 1899. It is hard to say which are her best or best known poems. "Canada to the Laureate" appeared in "Good Words" and called forth a cordial letter from Tennyson.

Some questions on Nova Scotia Literature texts will be furnished next month in response to a request from a subscriber.

*Pronounced Macker, with the stress on the first syllable.

EXCUSES.

"Roger, do you think that a good excuse for not doing something you ought to do, is as satisfactory as to have done the thing itself?" Mr. Brook asked his younger son, who had a fertile genius for "explanations."

"Why," said Roger, "one seems about the same as the other."

"Well," replied his father, "it will be a great step forward when you find out that they are totally *different* things! A good excuse for not having prepared your lesson at school may save you from punishment, but no excuse will put an atom of knowledge into your head. You may have an excellent excuse for having poor health, but no *good* health will be given in exchange for it."

"I never thought of it that way before," said Roger, looking thoughtful.

"Usually," continued his father, "excuses are only excuses. What we really *want* to do, we find a way to do. When you had your heart set on building a wireless station, you were particularly busy at school, and you were doing errands in the afternoon to earn money, so you had no time to spare. But you got up very cheerfully at sunrise for weeks to get the time you wanted." "It wasn't hard to do," said the boy.

"No, for you really *wanted* to do it," his father replied. Every one can instantly produce a perfectly good reason for not doing what he isn't keen to do."

"It's a very convenient faculty," said Roger, with a chuckle.

"It's not to be laughed about," answered his father. "It's one of the most dangerous capacities of human nature. If, whenever we left undone something that we ought to have done, we had to face squarely the fact of our own failure, there would not be half the evil there is in the world. But we blind our eyes to our own culpability; we even justify ourselves. We trifle with our moral sense, until our moral sense grows dull and blind, and we grow poorer and weaker—and we don't know it."

"I make no more excuses," said Roger, soberly.

"They are weak things to make to any one," replied his father, "but they are especially dangerous when we make them to ourselves."

—*Youth's Companion*.

SUMMER SCHOOL OF SCIENCE

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SPASMODIC SCOLDING.

Principal Creelman of Sydney, N. S., Academy, has a sound word to say to parents. The marks made in the quarterly examinations are published in the "Sydney Post," and in commenting on this report the Principal says: "The grumbling of a pedagogue does not make very fascinating reading. But this foreword is written for the parents of our Academy pupils, and to those parents especially whose boys and girls are not studying as they should. You'll not find these surnames in the following list *because they have not passed*. If you are encouraging and enthusiastic over school matters with your young person, it will do wonders. But a spasmodic scolding is worse than useless, as there always emerges from the curtain lecture the sullen specimen." "The spasmodic scolding" when the marks come out is too often the only notice that parents take of their children's school work. Idle children learn to accept this as they would a thunder shower. It will soon be over, and then they may be as idle as they like again. The assurance of intelligent interest at home in every day's work exercises a steady pressure that pushes many a lazy child to diligence.

A level lot is 50 by 120 feet in extent. A cellar is dug on the lot 25 by 60 feet and 3 feet deep; the earth from the cellar is spread evenly over the lot. The walls of the basement are 8 feet high from the bottom of the excavation. How far above the new level of the lot is the top of the basement. Solve mentally

[Did you find the product of 50×120 , or of 25×60 , or both? It is not necessary to do so. Look for a simpler way.]—WESTERN TEACHER.

We smile at languages that, like the Russian, use few vowels in proportion to the number of consonants, yet there is a common English word that has seven consonants and only one vowel. What is it?

PRACTICAL EXAMPLES IN ARITHMETIC.

W. D. MILNER.

The regular work of the school-room will often present many opportunities to teach percentage in an effective way, and such problems are more likely to be interesting to the pupils than problems that are simply made up for the occasion and have no real meaning. For example: Many teachers give written spelling lessons. Suppose that on a certain day there are forty pupils present and ten papers are perfect. $\frac{10}{40}$ of the papers are correct; $\frac{10}{40} = \frac{1}{4}$, which is 25%.

The pupils ought to give the answer to an easy example like the above very quickly, but it seldom happens that the problems are presented in as simple form as the one given. More often the number of pupils present is thirty-seven or forty-three, or some other odd number, and the number of correct papers is sure to change constantly, so that the problems will present a great variety of combinations. For example: If there are thirty-seven pupils present and twenty-nine papers are correct, to find the per cent of correct papers: $\frac{29}{37}$ of the papers are correct. $\frac{29}{37} = 78+$ per cent.

After the pupils become familiar with this kind of work, the form may be changed by giving the number of incorrect papers and asking the class to find the per cent of incorrect papers. Then, when this, also, is familiar, another step may be introduced by giving the number present in the class, the number of incorrect papers, and asking the class to find the per cent of correct papers. This will require a little more thought. For example: Suppose that the number of pupils present is forty-two, and that eleven papers are incorrect, to find the per cent of the correct papers: $42 - 11 = 31$, the number of correct

papers. $\frac{31}{42}$ of the papers are correct. $\frac{31}{42} = 73\frac{1}{2}$ per cent.

Problems of this kind are also valuable because they are more like the problems that the pupils will have occasion to solve after they leave the school-room. One criticism that is sometimes made upon the work of the schools is that the pupils do "book work" and cannot apply this knowledge to everyday affairs. Just to see if there is any truth in this criticism by business men, let the teacher who has a class that has worked in percentage for some time, and that, in her judgment, understands percentage very thoroughly, ask her pupils to give the per cent of the class that have correct papers the next time she gives a spelling lesson. This, of course, without any preliminary drill or explanation. She will simply state the number present in the class, the number of correct papers and ask for the per cent. It is very possible that the result may be a surprise.

Another interesting series of problems may be made by finding the per cent of attendance for a half day. For example: Suppose that the number of pupils enrolled is thirty-five, and that thirty-three are present, to find the per cent of attendance. $\frac{33}{35}$ of the pupils are present. $\frac{33}{35} = 94\frac{2}{5}$ per cent.

The numbers will change constantly, and there will be a great variety of combinations. Then the teacher may give the number of pupils enrolled, the number absent, and ask for the per cent of attendance. For example: Suppose the enrollment is thirty-five, and three are absent, to find the per cent of attendance: $35 - 3 = 32$, the number present. $\frac{32}{35}$ of the pupils are present. $\frac{32}{35} = 91\frac{4}{5}$ per cent.

There is no reason why pupils cannot work out the monthly report for the school, the teacher giving the data. Such work would be of great practical benefit to the girls who may some time become teachers. With this kind of instruction they would not be completely stranded the first time that it was necessary for them to make out registers of their own.

Another class of problems may be made by finding the per cent of the school time that is devoted to recesses, and to the different studies. For illustration: Suppose a school is in session from 9 o'clock to 12 o'clock in the morning, and from 1.30 o'clock to 3.30 o'clock in the afternoon,

each day, making five hours in all. There is a recess of fifteen minutes in the morning and one of equal length in the afternoon. What per cent of the school time is devoted to recesses? The total time given to recesses is thirty minutes. The total time that the school is in session is five hours, which equals three hundred minutes. Therefore, the time given to recesses is $\frac{30}{300}$ of the whole time. $\frac{30}{300} = \frac{1}{10} = 10\%$.

There are many other problems connected with school work that will suggest themselves to the teacher. A few are given as illustrations. It is not expected that the examples given here will apply exactly to any school, but they will serve to show the kind of problems that are suggested.

1. There are forty weeks in the school year in a town, and in this time there are five holidays. What per cent of the whole time are holidays?

40 weeks = 200 days. 5 holidays are $\frac{5}{200}$ of the whole time. $\frac{5}{200} = \frac{1}{40} = 2\frac{1}{2}\%$.

2. There are fifty-two weeks in the year, and the schools are in session in a certain town for forty weeks in the year. What per cent of the time are the schools in session?

Ans. $76\frac{2}{3}\%$.

3. In a town there were fifteen hundred pupils in the schools, and one hundred and twenty are in the ninth grade. What per cent of the pupils are in the ninth grade?

Ans. 8% .

4. The morning session of a school begins at 9 o'clock and closes at 12 o'clock. There is a recess of fifteen minutes. What per cent of the whole time of the session is the recess?

Ans. $8\frac{1}{3}\%$.

5. The primary schools of a town are in session from nine o'clock to eleven o'clock in the morning, and a recess of fifteen minutes is given. What per cent of the time is taken by the recess?

Ans. $12\frac{1}{2}\%$.

—*Popular Educator.*

In Sweden, King Gustav and many of his people are calling for an increase in both army and navy, because they are afraid of Russian aggression. Warned by the fate of Finland, they believe that Russian rule would mean the loss of some of their most cherished liberties. The Ruthenians, on the contrary, who are virtually a Russian people under Austrian rule, are said to be plotting for the separation of their country from the Austro-Hungarian Empire and its annexation to Russia.

RURAL SCIENCE SCHOOL

TRURO, N. S.

The Rural Science School will open at Truro, Wednesday, 10 a. m., July 8, 1914, and will close Thursday evening, August 6.

Classes are open to teachers of Class A, B and C, who are recommended by the Normal College Faculty. Those of Class B and C who are strongly recommended by an Inspector are also admitted.

Application for admission must be made before June 30. The Course of Study follows:

COURSE OF STUDY.

1. All Candidates for R. S. Diploma shall be required to complete satisfactorily the following courses: (a) Nature Study—1 hr. per week for 1 term, (b) Horticulture—3 hrs. per week for 1 term, (c) Biology—2 hrs. per week for 1 term, (d) Botany—6 hrs. per week for 2 terms.

2. Candidates shall elect as "majors" one subject from each of the groups A and B following:

A Entomology.
Chemistry.
Economic Zoology.

B Agriculture.

Each of the major courses elected shall involve as a minimum 6 hrs. per week class and laboratory work for two terms.

3. Candidates shall elect any two of the following as "minors," involving as a minimum two hours per week class and laboratory work for one term: (a) Bacteriology, (b) Brush and Cardboard Work, (c) Woodwork, (d) Mechanics, (e) Wether-work, (f) Geology and Soil Physics, (g) Birds, (h) Plant Diseases.

4. Work done in the Normal College in the following courses will be credited to the candidate for a Rural Science Diploma: (a) Brush and Cardboard Work, (b) Woodwork, (c) Wether-work.

Buy a single ticket and procure a Standard Certificate.

For further particulars see Journal of Education, October, 1913. For lists of boarding houses and similar information, apply to

E. W. CONNOLLY, REGISTRAR

CURRENT EVENTS.

The revolution in Peru has been successful for the time, and the deposed President has been exiled to Panama, but the Vice-president, Roberto Leguia, is on his way from England to Peru, intending to claim the Presidency by right of succession, and he will be opposed.

There has been much fighting in Equador, but with no decisive results, so far as known to the outer world.

Prince William of Wied has accepted the crown which was offered him, and is now King of Albania. His capital will be at Durazzo, on the coast. The boundaries of the new kingdom have been established, and quiet prevails among its recently warring factions, while the danger of a third Balkan war is lessened by the agreement which has been reached between the Turks and the Greeks, respecting the control of the Aegean Islands.

Though the people of Mexico may not have fully realized it, a great change in the Mexican situation arose when Benton, a British subject, was killed by the northern rebels. Acting with and through the United States Government, the British Government demanded an investigation, and a joint British and American commission was appointed for the purpose. This commission is awaiting the result of an official inquiry that has been ordered by General Carranza, the nominal leader of the insurrection. There have been some small encounters between the insurgents and the Government forces within the last

month, in which the Government troops were victorious. It is again reported that the acting President, General Huerta, will resign the office and take the field against the rebels.

President Wilson, in a special message to Congress, has asked for a repeal of the Panama Canal tolls exemption in favor of United States coastwise shipping, against which Great Britain has protested. According to the British view, which is shared by President Wilson, the exemption was in violation of the provisions of the Hay-Pauncefote treaty, under which Great Britain waived her rights in a canal across the isthmus on condition that the canal when built should be open on equal terms to the ships of all nations. A bill for the repeal of the exemption has been introduced in Congress and will probably pass.

A very serious revolutionary disturbance is reported from Brazil, where trouble has long been brewing.

The King of Spain has signed a decree giving a large measure of Home Rule to Catalonia. The three Catalonian provinces lie in the north-east corner of Spain, and Barcelona is their chief city. Catalonia was once an independent principality. Its people differ in origin, dress and speech from those of the rest of Spain.

Since Mongolia has come under Russian influence, Great Britain will further extend her influence over Thibet. A conference of British, Chinese and Thibetan representatives has been in session at Delhi and is said to have

agreed that Thibet shall be wholly independent of China and that its government shall be supervised by representatives of the Indian Empire, which will place it in the same position as Afghanistan. The Dalai Lama, who fled to India for refuge from the Chinese, will now probably return to Thibet to rule the country under British protection.

The Russian system of local self-government, which after fifty years trial has proved so acceptable to the people of Russia in Europe, is to be extended to all parts of the Empire.

A sudden call to arms for the defence of South Africa, on Sunday, the eleventh of January, met with a quick response, and sixty thousand men were enrolled before the day was over. The danger was in the movements of certain labour leaders, some of whom had gone to South Africa for the purpose of raising an insurrection. Some of the leaders were deported. It was noticeable that the Hindu agitators who were seeking for better treatment for their own people as British subjects ceased their efforts when the labour trouble arose and quietly supported the government.

In some parts of Switzerland and Germany, churches are heated by electricity, and a similar heating system has recently been placed in a church in Norway.

Last year a steamer commanded by an Englishman and having Norwegian and Russian scientists on board, made a voyage from the north part of Norway to the mouth of the Yenisei, carrying profitable cargoes both ways. The eastward trip was made in twenty-two days and the return in ten days. The Yenisei is a navigable river and one of the great natural highways of Asia. This proof that its waters may be reached by steamers from the ports of Europe, though only for a month or two every year, is of much importance.

The reindeer herds established five years ago by Dr. Grenfell in Newfoundland and Labrador, have proved a great success.

A flash light to warn automobiles of a dangerous crossing is in use in England, and the idea commends itself for general use.

Among travellers' tales, in need of confirmation is the story that an English explorer has discovered on the upper waters of the Amazon, the ruins of three great cities which were abandoned thousands of years ago, the inhabitants of which had wonderful skill in architecture and used dishes and weapons made of an alloy of gold and silver. Ancient ruins have been long known to exist at places along the eastern slopes of the Andes and the newer story is not incredible.

The Belgian Government has ceded to Great Britain a strip of land in the Congo region, thus making it possible for the proposed Cape to Congo railway to traverse British territory throughout its entire length.

A treaty is being negotiated between Great Britain and the United States for the protection of migratory birds which pass from the United States to Canada and back at different seasons of the year. The treaty will also apply to birds that migrate from the British West Indies to the United States.

Letters have been received from Stefansson, confirming the report that the Karluk had been carried off in a storm. Nothing has yet been heard of the missing vessel.

Dr. Douglas Mawson has returned to Australia after two years work in the Antarctic regions. His expedition has been very successful and he and his companions have brought back large collections of biological and mineral specimens.

The war in Hayti continues, or there is another war in progress to determine which of the revolutionists shall rule. Zamor, who had defeated the former President, was elected by Congress to succeed him, but he finds it difficult to subdue the army of his rival, Theodore, the original leader of the revolt.

SCHOOL AND COLLEGE.

Toronto maintains special classes for backward children but besides these, the Toronto Mail and Empire pleads for a properly equipped provincial training school for mental defectives, of whom between 250 to 300 are officially reported as attending the public schools in that city.

Professor E. Brydone-Jack, professor of civil engineering, University Manitoba, has been elected member of the British Institute of Civil Engineers.

The Sydney, N. S., trade and labour council is urging the furnishing of free school books to the children in the city schools.

The school house at North Head, Grand Manan, was burned to the ground on the evening of Friday, February 13, and all the furniture and equipment of the four departments were destroyed. It is supposed that the fire caught from an over-heated stove. The loss is variously stated. The insurance was only partial.

The Regina Ministerial Association are urging upon the provincial government, that in addition to the Lord's Prayer, certain selections from the Bible, and hymns acceptable to all religious bodies be prescribed as part of the regular school exercises. The Premier promised prompt consideration of the request.

Mr. Vere Karsdale Mason, of Falkland Ridge, N. S., has been appointed Nova Scotia's Rhodes Scholar for 1914. Mr. Mason, who is a senior at Acadia University, will enter at Oxford next autumn.

The Hartland, N. B., Superior School has received from the Department of Agriculture, a prize of \$15 for the best kept school garden in Carleton County, for the year 1913.

Sir Henry Mill Pellatt, and Mr. J. H. Plummer, two prominent Canadians, have donated generous gifts to King's College. The former has endowed a chair in the University to be known as the Sir Henry Pellatt Chair of Philosophy. The endowment is \$1500 a year. Mr. Plummer, who is president of the Dominion Steel Company, has given a fellowship worth \$500 a year.

The distinguished botanist, Dr. W. Whitman Bailey, brother of Dr. L. W. Bailey of Fredericton, died recently at Providence, R. I. He was Professor Emeritus of Brown University, and well known through his contributions of papers upon nature subjects to well known periodicals.

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He held the honorary degree of L.L. D. from the University of New Brunswick, where he once acted as Professor of Chemistry and Natural Science.

Sir William McDonald has been unanimously chosen Chancellor of McGill University as successor to Lord Strathcona. Sir William has been a generous benefactor of McGill, some of his gifts being new engineering and medical buildings, and MacDonald College at Ste. Anne de Bellevue, where the work of the Faculty of Agriculture is carried on.

Miss Carrie Reynolds, who has taught with great success for the last three years on the staff of the Norton Superior School, has resigned her position. Her pupils presented her with several gifts, together with an address containing their testimony to the esteem she has won and their good wishes for her future. Miss Reynolds supervised the very creditable school garden at Norton.

The annual report of the Town Government of Amherst, N. S., for the year 1913, shows that Amherst people are zealous for their schools. The Evening Technical School reports an attendance of 157. The report of the School Nurse shows that she examined some 5000 pupils. Among the outstanding features in the school work of the year are the systematic teaching of the Palmer method of writing, and the time and pains giving to singing in the schools. Teaching of singing is now part of the daily work in every department.

Miss Esther I. Clark of Fredericton, N. B., has been awarded the 1905 scholarship at Acadia University. This

scholarship was founded by the class of 1905 for the Sophomore who made the highest average in the Freshman year.

By the will of the late Miss Mary Cramp, Acadia has received the sum of two thousand dollars. The amount is to be spent on the new library building.

RECENT BOOKS.

Professors Trent and Erskine of the University of Columbia, have published in a small volume, *the Poems of Wordsworth, Skelley and Keats* from Palgrave's Golden Treasury, with an introduction and notes. The introduction should be a great help to students and teachers of literature, consisting, as it does, of an essay on the lyric.

"The lyric" says the writer, "is essentially that literary type which expresses emotion, just as the drama and the novel express active experience and the essay expresses thought." [120 pages. Ginn & Co., 25 cents.]

Five of Tennyson's Idylls of the King are among the College Entrance Requirements for 1914-19 in the United States. They are the *Coming of Arthur, Gareth and Lynette, Lancelot and Elaine, The Holy Grail and the Passing of Arthur*. Dr. Willis Boughton, teacher of English in Erasmus Hall High School, New York, has prepared a convenient edition of these Idylls for Ginn & Company's Standard English Classes. The introduction contains in small compass, much useful matter on Tennyson's life and work, the Arthurian romances, and the verse of the Idylls. [185 pages. Ginn & Co., 30 cents].

An Anthology of English Verse, edited by A. J. Wyatt and S. E. Goggin, contains representative specimens of all that is best in English verse, exclusive of dramatic poetry, from Wyatt and Surrey down to the Victorian poets. Short critical biographies are prefixed to each group of selections from the several poets and a glossary contains also explanatory notes. [360 pages. University Tutorial Press., 2s. 6d.]

An attractive volume comes from Ginn & Co. with the title *Industrial Studies, Europe*. It is written by Nellie B. Allen of the State Normal School at Fitchburg, and intended to furnish to children from Grade V up, some interesting information of the life, and especially the industrial life, of European nations. The information is up to date and put in an interesting way, and the book would make an admirable geography reader, or in the teacher's hands, supply plenty of supplementary material for geography lessons. There are over one hundred and fifty illustrations and eight maps. Suggestions for topical study, follow each chapter. [409 pages. 80 cents. Ginn & Co.]

The University Tutorial Press, *First Stage Hygiene* is in its sixth edition. Written by an eminent physician who has been a school medical officer, it presents the subject as taught in his classes and contains many directions for simple experiments, sets of test questions and specimen examination papers.

The Canadian Almanac becomes increasingly useful and no office or library which has once used it for reference would willingly do without it. The 1914 issue contains a coloured map of British Columbia, showing all the railways and principal towns, as well as the physical features. The book has full information about educational institutions, Dominion and Provincial Governments, complete revised list of post offices and many other lists invaluable for reference. [520 pages, cloth \$1.00. The Copp Clark Company, Toronto].

RECENT MAGAZINES.

The *Canadian Magazine* for March contains an attractive list of contributions, perhaps the most important of which is the full text of a speech delivered by the Honourable Elihu Root in the United States Senate in favour of the British contention regarding the equal imposition of tolls on the Panama Canal. This speech gives a complete review of the negotiations that led to the building of the canal, and as the attitude of the United States Congress is likely to become more than ever a subject for international discussion this contribution to *The Canadian* should be widely read. There are as well articles by Wilfred Campbell, Mrs. Arthur Murphy, Frank Yeigh, Harold Sands, Mrs. Forsyth Grant, Main Johnson, W. C. Gaynor, Phil Ives, Margaret Bell, Lindsay Crawford, Francis A. Carman and others.

The March *Century* is a good number. Fiction includes not less than nine short stories, among them "The World Set Free," a prophetic tale by H. G. Wells, "The Education of Popo," a story of a young Mexican's first love,

by Maria Christina Nena, and an unusual story, "The Quality of Genius" by Katharine Holland Brown.

The frontispiece is a reproduction in full colors of a printing by George Inness, Jr., "Surely This Man was The Son of God," which is a novel though reverent conception of the Crucifixion. There are four pages of the work of John S. Sargent and eight pages of Leon Bakst, the eccentric Russian colorist.

The non-fiction features of the number include "What Have Women Done With the Vote?" by George Creel. "The Golden Temple of Amritsar," an artistic piece of description by E. F. Benson, "Origins of the American People," a suggestive paper by Professor Edward A. Ross, whose series on Immigration is making a profound impression; "The Next Step in Prison Reform," a timely paper by Richard Barry, "What about Russia" by James Davenport Whelpley, touching upon the present situation between the United States and her old friend, Russia, "Dublin," an article full of interest by Brand Whitlock, Minister to Belgium.

HEATON'S ANNUAL, THE COMMERCIAL HANDBOOK OF CANADA, Heaton's Agency, Toronto. Price \$1.00. Postage 12 cents. The 1914 edition of Heaton's Annual has come to hand. The first edition was compiled in 1904 for the Department of Commerce of the Dominion Government, to meet the requirements of British firms doing business with Canada, and 15,000 copies were purchased and distributed by the Government in Great Britain and Continental Europe.

The second half of the book contains a concise, up to date description of all the towns in Canada of any commercial importance, including the leading hotels in order of merit, the existing industries and special opportunities for new industries. To this is added a section covering such subjects as agriculture, fur-farming, commerce, education, finance, fisheries, forests, immigration, mining, population, professions, railways, game laws, water powers, etc., and admirable, up to date pocket encyclopedia of the resources of the Dominion.

This section is especially valuable for use in teaching the geography of the Dominion and we recommend the book for the school library and the teacher's desk.

DO YOU KNOW CANADA? A novel and unique mine of information is found in the popular booklet, 5,000 Facts About Canada, just issued for 1914, and compiled by Frank Yeigh, the well-known statistical authority on things Canadian. This new edition shows a marked advance over previous issues in an increase of new data, a handsome cover, a revised map, and improved paper. The publication contains all the essential facts of Canada's progress in a year, under such chapter heads as Agriculture, Area, Banking, Census, Mining, Manufacturing, Trade, etc., while striking tables of comparisons present a measuring rod of our national development. Its wide circulation is easily understood when its value is realized, for it presents the Dominion in a nutshell, a ready reference encyclopedia of facts and figures. It may be had by sending 25 cents to The Canadian Facts Publishing Co., 588 Huron St., Toronto, or from news dealers.

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The ORILLIA, ONT. PACKET has the following kind words for us:—

That excellent periodical, the EDUCATIONAL REVIEW, of St. John, N. B., made its first appearance in 1914 with a new, bright and appropriate title page. The REVIEW sustains the high character attained under its founder, the late Dr. G. U. Hay. We are pleased to learn, from a private source that this Eastern periodical is gaining a considerable circulation among educationists in the Canadian West. Long may it continue to grow.

The longest overland mail trip in the world is that which four employees of the Hudson Bay Company are now making. With two dog teams, each of which drew three hundred pounds' weight of mail and provisions, they left Edmonton, in Alberta, Western Canada, early in December, for Fort McPherson, on the Arctic Ocean, near the Alaska boundary. It is hoped that they will reach their destination, 2,000 miles away, by the end of February. In the mail they carry is a packet for Mr. Stefansson, the Arctic explorer, to be delivered at Herschel Island.

Dr. Robertson would have some sympathy with the English schoolboy who wrote: "Much butter is imported from Denmark, because Danish cows have greater enterprise and more technical education than ours."—ORILLIA PACKET.

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—Amiel's Journal.

At vespertide
One virtuous and pure in heart did pray:
"Since none I wronged in deed or word today,
From whom should I ask pardon!
Master, say."
A voice replied;
"From the sad child whose joy thou hast not planned;
The goaded beast whose friend thou did'st not stand;
The rose that died for lack of water from thy hand."

The child sees what we are behind what we wish to be.
—Amiel's Journal.

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