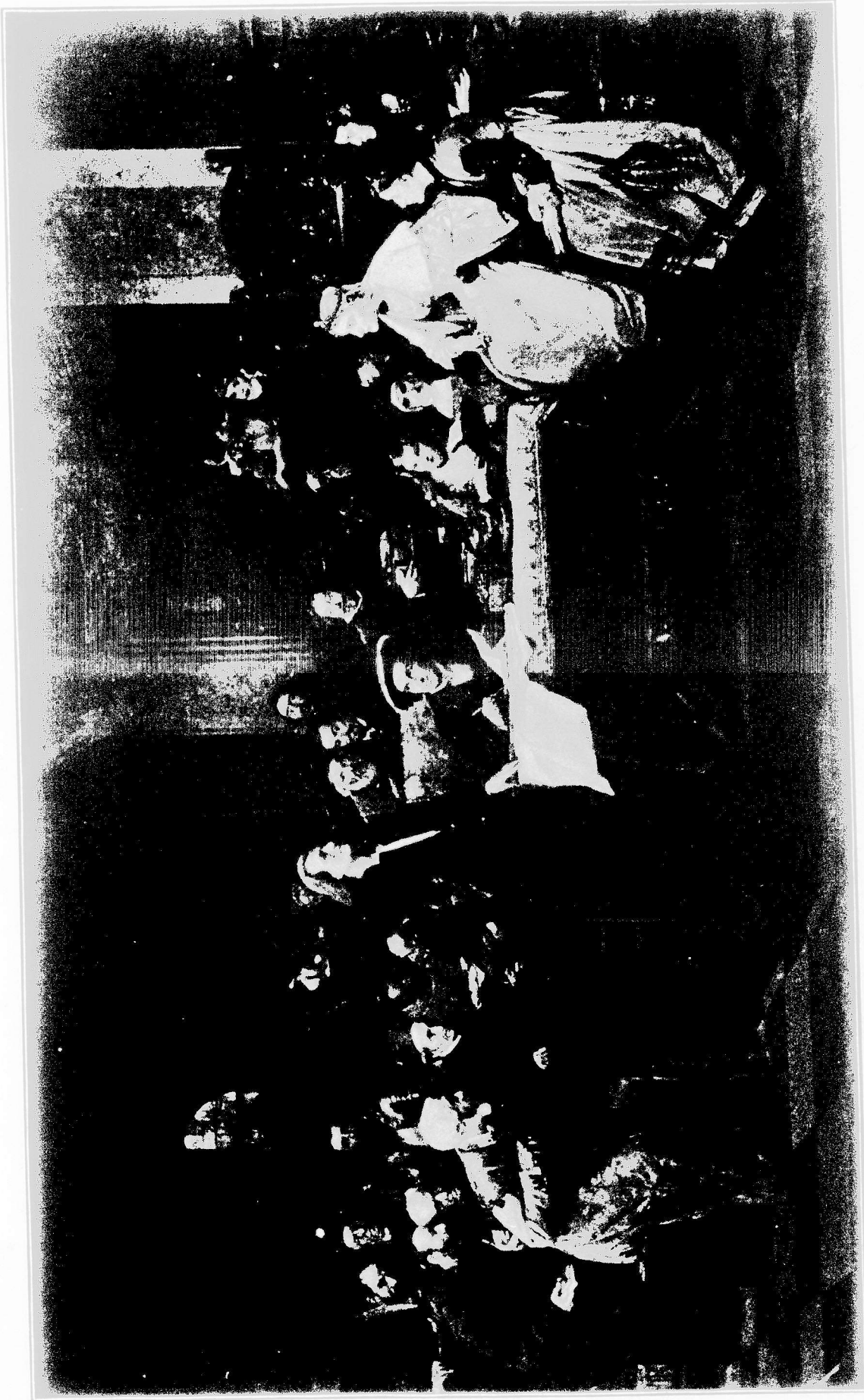


PAGES

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COLUMBUS BEFORE THE COURT OF FERDINAND AND ISABELLA

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The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

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THANKSGIVING DAY.

And so let us give thanks to God upon Thanksgiving Day. Nature is beautiful, and fellowmen are dear, and duty is close beside us, and He is over us and in us. What more do we want, except to be more thankful and more faithful, less complaining of our trials, and our time, and more worthy of the tasks and privileges He has given us.—*Philips Brooks.*

The Dominion Government has proclaimed Monday, October 28th, Thanksgiving Day.

The true spirit of Thanksgiving is not shown in a boastful enumeration of material advantages. The privileges enjoyed by Canadians should deepen their sense of responsibility for taking their share in the work of the world, and making their own contribution to the good of humanity.—*President Falconer, Toronto University.*

A fitting way to mark the close of this month will be to have frequent references to Thanksgiving and its purpose. The day is a holiday, and should be a day of joy and gratitude to the Giver of all blessings for His goodness to us during the past year. The teacher may lead up to its proper observance days before and by drawing from the scholars references to the abundant harvests, the peace and plenty, health and happiness that our people enjoy. The reading books furnish appropriate selections, and suitable poems and exercises may be chosen for recitations.

The most distressing accident that the REVIEW has ever been called upon to record occurred at Petitcodiac, N. B. On the afternoon of October 4th, Miss Reta Perry, a teacher of Havelock, who had been attending the Institute at Moncton, was struck while crossing the railway track, by the locomotive of a train, and instantly killed. The keenest sympathy will be felt for the home circle so suddenly bereft of a bright young life. She was an only daughter and but twenty-four years of age. The REVIEW extends its sympathy to the parents and friends in their tragic bereavement.

Our supplement picture is of special interest this month. October 14th will be the 420th anniversary of the discovery of America by Columbus. The story is one of keen interest to children, and illustrates the virtues of patience and perseverance.



Teachers' Institute at Moncton.

Two hundred and thirty teachers representing the Counties of Kent, Westmorland and Albert, New Brunswick, met in a united institute in the hall of the High School, at Moncton, on Thursday and Friday, October 3rd and 4th. Chief Superintendent Dr. W. S. Carter was present and gave an address on the benefits of institutes for teachers. Mr. S. Boyd Anderson, President of the Westmorland Institute, welcomed the teachers to Moncton; A. W. Seaman, President of the Albert Institute, gave a valuable paper on Some Needs of Our Rural Schools; W. T. Denham, B. A., of the Kent Institute, gave an address and afterwards read an interesting paper on The Education of Literary Taste. Miss Agnes M Alward read an instructive paper on The Distinction Between Knowledge and Culture.

Congratulatory telegrams were exchanged between this Institute and that of Eastern Maine, meeting at Calais. The lady teachers of Moncton served ice cream at a social gathering on Thursday afternoon, and in the evening a public educational meeting was held, at which addresses were delivered by Chief Superintendent Dr Carter, Inspectors O'Blenes and Hebert, Principal G. J. Oulton, E. C. Cole and J. T. Hawke.

During the second day's proceedings, a paper on History was read by Miss S. J. Daley, and a paper on Geography by Arthur H. G. Mitchell, followed by an illustrated talk on Drawing, by H. H. Hagerman, of the Normal School, Fredericton.

Officers were elected for the three Institutes as follows: President, H. B. Steeves, Shediac; Vice-President, Miss Nichol, Moncton; Secretary-Treasurer, W. A. Cowperthwaite; additional Executive, Miss May Carter, Sackville, and Miss Ryan, Petitcodiac.

The Kent County Institute elected the following officers, which were the same as last year: President, W. T. Denham, Richibucto; Vice-President, Miss Stella Burns; Secretary-Treasurer, R. P. Steeves; Executive Committee, Miss Agnes Ferguson, Flora Atkinson, Jessie Comeau, Minnie Buckley and Louis Richard.

Result of the Albert County Institute election: President, A. W. Seaman, Albert; Vice-President, Francis K. Smith, Port Elgin; Secretary-Treasurer, Miss Atkin; Executive, Miss McCully and Miss Atkinson.

Centennial Anniversaries of the War of 1812

V.—The Bombardment of Kingston.

J. VROOM.

November 10.—Kingston, then the largest town in the Province of Upper Canada, was also the chief naval station on Lake Ontario. It was a base for the little squadron of five armed vessels that gave the British control of the lake. The need of maintaining this control was fully recognized by Sir George Prevost, Governor-General and Commander-in-Chief, and by the British Government; but was met only by a promise of sending out trained officers and men next year. Meanwhile, at Sackett's Harbour, nearly opposite Kingston, trading vessels which had been taken over by the United States naval authorities were being armed and equipped for the service; and before the end of the season the five British vessels were opposed by eight, which, though not better ships, carried more guns and were better manned.

On the tenth of November, this fleet approached Kingston; its chief object being to capture or destroy the largest of the British vessels, the "Royal George," which had taken refuge in the harbour. The attack began about the middle of the afternoon and lasted until sunset; when the attacking ships withdrew with the loss of a few men killed by shots from the batteries on shore. The British suffered no loss. The bombardment therefore was of but little interest in itself; yet it is important as marking a turning point in the history of the war. The commander of the United States vessels, Commodore Chauncey, though his expedition to Kingston was a failure, had won a very distinct success by his quick and efficient work in fitting out his squadron, which gave him control of the lake for a time, and effectually cut the British lines of communication. And, as this was the first marked success for the United States forces on the Canadian frontier, he deserved and received great credit from his own people. The British squadron, outnumbered but not defeated, was commanded by Commodore Earle. He was superseded in 1813 by an officer of the regular service; but, if there be any indication in the number of men called Chauncey whom we meet on one side of the line, and of those who are named Earle on the other, both are entitled to remembrance.

The importance of Chauncey's achievement is measured in part by the long struggle for supremacy on the lake in 1813. There were no railways then; so there was far more need of safe transportation

by water than there is at present. The Rideau Canal was built later as a military work of urgent necessity, to give water communication between Montreal and Kingston by a safer route than the St. Lawrence in the event of another war with the United States. For want of such a route, when the enemy got control of the lake in 1812, Kingston was practically isolated.

Tales of the naval encounters on the lakes are especially confusing. To illustrate the difficulty of getting facts from the conflicting stories, we may take the story of the chase of the "Simcoe," an incident of the attack upon Kingston. Roberts, in his "History of Canada," without citing his authority, states that she was totally unarmed, the only weapon on board being a solitary musket. According to his account, she was bound for Kingston; where, as she approached the harbour, she sailed into the enemy's fleet, never dreaming that a hostile sail would be found so near her destination. Refusing to surrender, she kept on her way, taking the broadside of every ship as she passed. Sails and bulwarks were riddled with shot; and at last, just outside the port, she sank with a shot-hole below her water line; her crew, still defiant, being rescued by boats from the shore. A pretty story when told at greater length and with more or less convincing detail; but Roosevelt, in his "Naval War of 1812," mentions the "Simcoe" as an armed vessel carrying eight guns, and merely says that she was chased, but unsuccessfully; which would seem to imply that she escaped unharmed. One of the five armed vessels of the British squadron was called the "Simcoe." It is not incredible that there was also a trading vessel of that name. Assuming such to be the case, we are left to wonder whether they were both engaged in the affair or whether we have here two marvellously different stories of the same occurrence.

A new and revised edition has been published of Hay's History of Canada. The new book is a great improvement on the former, is in larger type, a change that will make it a much more desirable text for pupils. A few changes have been made by which the longer paragraphs are broken up into shorter ones, and the events are brought down to the beginning of the present year. While the text-book has been enlarged and improved, the publishers announce that the price has not been increased.

Courses of Study.—III.

ELEANOR ROBINSON.

I have had several requests for specimen copies of N. H. R. U. magazines and leaflets. It was a case of "First come, first served," and the response to an application received yesterday exhausts my supply of leaflets. I have still two or three odd magazines that I shall be glad to give away, and a polite note addressed to the General Secretary, Miss A. M. Read, 12 York Buildings, Adelphi, London, W. C., England, will bring directions how to join the Union and receive the book lists for this year.

The subjects for the session October, 1912, to May, 1913, are as follows:

GENERAL COURSE. Fee, 2s 6d.

1. The Open Air: Every Day Botany.
2. The Bible as Literature: Jeremiah.
3. Charities and their Administration.
4. The Child at Home.
5. Dante (for beginners).
6. Some Short Biographies.
7. Founders of the Empire: Australia.
8. Words and Their History.
9. General Literature.

SPECIAL COURSES. Fee, 4s.

1. History of Ireland.
 2. Early Italian Art.
 3. Social Life in Modern Italy.
 4. Wordsworth and Coleridge.
 5. India.
 6. Great Musicians.
 7. Modern French Literature.
- Also two Supplementary Courses, gratis.

YOUNG PEOPLE'S SECTION. Fee, 1s. 6d.

1. English History.
2. Nature Study.
3. General Literature (Fiction, Poetry, Biography and Travel).

The Introductory Course includes Nos. 1, 3, 6 and 7 of the General Course. The fee is one shilling.

It is entirely open to members to read as many or as few subjects as they may desire, in whatever section they join.

The membership fees entitle you to the Book Lists and magazines (post free) of the respective sections. Members are received at any time in the reading session.

If I did not know, from different experiences, that English money is sometimes a real stumbling block

to Canadians, I should think it absurd to offer advice about sending the fees. Leave it to the Post Office. Say that you want an order for four shillings, or two shillings and sixpence, and the clerk will tell you how many cents it will cost you.

THE FORMATION OF READING CLUBS.

My first counsel to any one who wants to form a reading society is, to join the N. H. R. U. and follow their directions for forming circles.

But if you do not want to be connected with any large association, nor have any fees to pay, you can probably find some people who will be glad enough to join you in making up a little club. If you are in earnest in making reading, or study, the first and great object, and social meetings entirely subordinate, by all means limit your membership to ten or twelve at the outside; five or six will do still better work. And whatever your membership, make it a fixed rule to have no one who will not take an active part. There are always numbers of people who will say, "Oh yes, I'd like to come, but you mustn't expect me to do anything." They are not the members you want.

Have no other rules than that every member shall attend the meetings regularly and work willingly. And let there be no officers, subscriptions, minutes, motions, chairmen or other time-wasting paraphernalia.

Choose a subject, or an author, about which, or whom, you all want to read. Let each member, in turn, take charge of a meeting, and prepare a programme, and let every other member be bound to take the part in the programme assigned to him or her. It is impossible to give more than the most general suggestions about programmes. I belonged, years ago, to a club which took for a subject one winter, "The Elizabethan Age." (We were all young and ambitious.) One of the most interesting evenings was spent in telling, in turn, the story of our special favourite of Shakspeare's plays. But you may have members to whom that would seem childish, or, some to whom reading aloud an extract from "Lamb's Tales" would be at once an effort and a gain.

Do not be too ambitious in your first efforts. To form the habit of regular reading, and gradually to train the taste to recognize and prefer what is good,—these are the things we can hope to do by very simple means. I have known a great deal of profit and pleasure to be gained by a group of

modest, book-loving women, who met together once a week, winter after winter, and read aloud, over their work, with deliberate enjoyment, some of the standard novels of Scott, and Dickens, and Thackeray. They had no "discussions," or "character-sketches," or "summaries," but they talked the books over freely, as they read, and expressed their likes and dislikes and opinions. They even read some works over twice and liked them better the second time. Any neighbourhood could surely manage meetings like that.

(To be continued.)

The Magnet.

(There is a suggestion to teachers in the extract below, how they may employ other plans than that given to interest listless children.)

A primary teacher found the exercises were dragging, the children were listless. With a bright smile and a merry "Put away your work, children," she produced a magnet.

Of course the children were excited as they watched it pick up nails, tacks, and small pieces of iron. Then they tried it without success on copper, brass, and even silver, and it was funny to watch their disappointed faces. The teacher balanced the iron on paper, but the magnet had no respect for the paper. It chased the nails around as if it were alive. While they were still excited over the play between the magnet and the iron, the teacher held up a common sewing needle. The children knew it would not even pick up the tiny filings. And how superior their smiles when she tried to make it do so and failed. But wait a moment. See her pass the needle several times over the end of the magnet. First one end and then the other. Then when she holds it near the filings, how eager the children are, and this time watch them cling to it. How their eyes sparkle. But the teacher is not through. She sticks the needle through a piece of cork and floats it in a glass of water on her desk. Then one little boy, who has been especially attentive and quiet, holds the magnet close to the glass. The eagerness of the children almost escaped bounds, for when one end was tried the needle attempted to run away. Trying the other end, the opposite was the effect. The teacher made little of this, however, merely saying that the same kind of ends drive each other away, but when the ends are not the same they cling close together. Perhaps she would have said more, but time was flying. For once the little folks listened with regret to the bell for dismissal.

A lesson on the magnet may be given effectively by magnetizing a number of common knitting needles, and letting the children experiment. They are wild to possess the magnetized steel.—*American Primary Teacher.*

THE REVIEW thanks its subscribers who have so promptly sent in their subscriptions during the past few months.

Questions on "Cranford."—Grade IX.

M. WINIFRED McGRAY.

1. "From Michaelmas to Lady-day."—How long a time is that? Other English quarter days? Scottish?
2. Explain—quondam friend, plumed wars, misnomered Cape of Good Hope, Mr. Boz, rolling three piled sentences, dissuasives, fell disease, circuitous, comely, joiner, scullery, recondite, Don Quixote-looking, sarcenet, cosset, two and twopence, Turkey carpet, assize time.
3. Who were asked "to join in a fly"? What is meant? What would such an invitation mean today?
4. "We had pudding before meat." Do we now-adays? "Now folks begin with sweet things." Do they? In what order are the different courses served at dinner?
5. "One of the charms of Cranford is the delightful humour scattered throughout." Collect some of the best examples of this delightful humour.
6. Make a brief character sketch of Lady Glenmire, and compare her with Mrs. Jamieson.
7. How should you address a queen? duchess? lord? our present Governor-General? Sir Wilfrid Laurier? Mr. Borden?
8. Who was guilty of quiet impertinence? What did she say and do? How was her impertinence received by the Cranford ladies? Why did these ladies agree to forgive and forget it?
9. Who was the widow of a Scottish baron? What difference whether Scottish, English or French? Arrange in order of rank—lord, sir, duke, earl, etc.
10. What is meant by county families? Why should they have the front seats at an entertainment? Which are now considered the best seats in a theatre? What do you mean by Dress Circle?
11. Describe the Assembly Room of Cranford? Where was it? Write a note on Drury Lane. Does "Fitz" mean something aristocratic? How about de, von, van, Mac, O'. Why would bombazine show a deeper sense of loss than rustling black silk?
12. Explain the difference between lama and llama; astronomy and astrology; road, street and lane; carnivorous and graminivorous; horizontal and perpendicular. What kind of hats do admirals wear?
13. For what were Mrs. Jamieson's front rooms used? Anything unusual in such an arrangement? Account for it? Who occupy the lower floor in a castle?
14. Name some famous people brought up beside the Avon in Warwickshire. What places do tourists visit in Warwickshire? What writer lives there now?
15. Who was Aga Jenkyns? What does Aga mean? What had Aga Jenkyns been doing all these years? Account for his long silence. What brought him to Cranford at last? Explain—Great Lama of Thibet.
16. In what respects were the boy and man alike?
17. Tell in your own words the story of Mrs. Brown's journey to Calcutta.
18. What use did people make of four-syllabled words in Mrs. Forester's day? From whom was Mrs. Forester descended? What did she leave Miss Matty in her will?
19. From "China to Peru." Show on the map. How must you go to put India in between? What is the usual way?
20. Make a list of the chief characters in "Cranford." What is the name of the person who is telling the story? How do you know? Where is her name first mentioned?
21. How do you like a book written in the first person? Do you know many others? Find one by each of the following writers: Scott, Dickens, Thackeray.
22. How did the story of the robbers start? How did it grow? What was true? Tell the story of "The Three Black Crows."
23. What person in "Cranford" is said to resemble a sulky cockatoo? Which of the characters was a prophetess? Why? Who was a cynic? Why? Whose chief fault was indiscretion? Who was fat and inert? Who was most generous? Who kept his safe in the yard? Who was honest, even to a fault? Who was dull and pompous? Who was kind, gentle, and shabbily dressed? Who wanted to marry an archdeacon and write his charges? Explain "charges," also "archdeacon."
24. How was Miss Pole interrupted in her studies and reminded of her duties as a guest? How did she prove that she was not afraid of robbers and ghosts?
25. What kind feelings were called out by Samuel Brown's illness?
26. What pet apprehensions and bugbear faults had some of the Cranford ladies?
27. What artist painted a picture of the "Virgin

and the little Saviour" on the bottom of a cask? Describe the picture. What else did he paint?

28. Collect the different French and Latin words and phrases, etc., and explain their meaning. Do you think it good or bad form to use them in conversation or writing? Give reasons for your answer.

29. Why would reading Lord Chesterfield's Letters improve one's manners? Who was Lord Chesterfield? What queer expressions had Mr. Hoggins?

30. Explain—turban, reel of cotton, clothes-maids, witch of Endor, death-watches, surgeon-dentist, box-edged path, flag-floor, sanded floor, cassock, full-bottomed wig, mountebank, removing the oven, gilly-flowers, rhododendron, etc.

31. Is "hoaxing" a pretty word? What did Miss Matty think about? Give examples of pretty words.

Lamb says: "The names of some of our poets sound sweeter, and have a finer relish to the ear—to mine at least—than that of Milton or of Shakespeare. It may be that the latter are more stated and rung upon in common discourse. The sweetest names, and which carry a perfume in the mention are Kit Marlowe, Drayton, Drummond of Hawthornden, and Cowley." Give your opinion of this opinion.

An October Number Lesson.

(For a little girl as teacher, who points to a sketch of leaves on blackboard, erasing, as words suggest; and a class of little people, who answer after each stanza.)

Ten little leaves, on the maple bough,
The wind sweeps by—there are seven now.
If you'll put on your thinking-caps,
You'll know how many he's taken, perhaps?

(Class answer,)

Seven little leaves, pretty as can be,
Beth gathers some—now there are three.
If you'll put on your thinking-caps,
You'll know how many she's taken, perhaps?

Three little leaves—down goes the sun—
Jack Frost nips—snips—now there is one.
If you'll put on your thinking-caps,
You'll know how many he's taken, perhaps?

One little leaf sees the rest below—
Laughs and rustles—and—now—let's go!
You will not need your thinking-caps
To tell how many are left, perhaps?

—Primary Education.

Woodland Botany for October.

L. A. DEWOLFE.

The woods now show signs of approaching winter. By no means, however, have they ceased to interest us. Possibly during no other month are our hardwood forests so beautiful as in late September or early October. Everyone likes to gather autumn leaves. Does every teacher make good use of her opportunity at this time to interest her pupils in woodland nature study?

For the very young children, the autumn leaves afford excellent material for teaching colour. The arrangement of various colours into various schemes or patterns would be good training.

Why have the leaves changed from green to red, brown, yellow, and orange? The children will, doubtless, attribute it to Jack Frost. Did they ever see the leaves turn before our first autumn frosts?

I observed, in August, a branch of a maple that had been partly broken off. The leaves on this branch were brilliant red, while the rest of the tree was green. There had been no frost. Even if there had been, would it have singled out this one branch? It is a common thing to see the leaves on an injured tree change colour earlier than do other trees. Or, if the tree grows in very shallow or very wet soil, it may ripen earlier.

Similar conditions make fruit ripen early on apple trees. When apples ripen, they change colour. Could it be possible that the autumn leaves are ripe leaves, as coloured apples are ripe apples? In both cases they have become mature, and ceased active work. The similarity is worth thinking about. When a forest tree or shade tree changes colour earlier than its neighbour, try to find a reason for it. It is natural for some species of trees to cease the year's active work earlier than others. Notice which trees have the shortest growing season.

The October woods are interesting, however, in many ways. As the leaves fall, discuss how they fall, and why. My students tell me the young buds push the old leaves off. Examine a few twigs to see if this be possible. Look at the scar after the leaf has fallen. Is it healed over or not? Did the healing process help the leaf to fall? What hardwood trees hold their leaves latest in the autumn?

Incidentally, one may find birds' nests and cocoons of insects after the leaves fall. Leave some of the nests until next spring, to see if birds return to them or not. Gather the cocoons and keep them in a cool

place until spring. Then take them into the school-room and await developments.

Now is a good time to observe how much a certain tree or twig grew during the present year.

Compare the growth with that of the last four or five years. How is it, for example, that young shoots coming up from old red maple stumps have grown three or four feet this year, while a twig on a large tree of the same kind grew only a few inches? Notice, also, the rapid growth which seedlings of poplars and birches have made. It appears that they realize their first year to be their hardest one. Therefore, they make a desperate effort to establish themselves well before winter comes.

In open woodland, many autumn flowers still linger. Do you find the same kinds of asters and golden-rod here as by the roadside? Look for Beech-drops. Possibly many are unfamiliar with this common parasite. [Here is a good place for a lesson on parasites, noting how a dependent life has destroyed their power of independent growth.]

A few ferns are still green. Most common in the woods will be *Aspidium spinulosum*. In suitable situations, however, we can find the Christmas Fern, Margin-fruited Fern, and the Polypody or Rock Brake. They remain green throughout the year. So does the Crested Shield Fern, which grows in boggy ground.

You can still find the remains of the Hay-scented Fern, Lady Fern, Oak and Beech Ferns, and Brake; but all these will be yellow or brown and ready to disappear.

Notice, too, the great number of seedlings that have started this year. Can they all grow to maturity? Why? Will any of them reach maturity? What factors decide which may survive and which will perish? The struggle to exist is everywhere; and nowhere is it better illustrated than in the woods.

Much of the foregoing applies only to hardwood. What if our forest is coniferous? Is there any difference between coniferous and evergreen? Are all our softwoods evergreen?

Compare the coniferous woods of October with those of June. Have the leaves the same fresh, green now that they had then? Were all the leaves fresh green in June? Are leaves falling from the conifers now? If so, when did those leaves first grow? Are they one year old or more? [The

answer will not be the same for pine as for fir or spruce. What about hackmatack?]

When these leaves fall, do they leave a scar? Compare the scar with that left on a hardwood. Notice the relative arrangement of buds on softwood and hardwood. How long do the cones remain on the various cone-bearing trees? Do they point up or down? Can you name the tree from the shape of the cones? These and many similar questions are suggested by a woodland walk in October. Will you look for the answers?

The Dog Under the Wagon.

"Come wife," said good old Farmer Gray,
"Put on your things, 'tis market day,
And we'll be off to the nearest town,
There and back ere the sun goes down.
Spot? No, we'll leave old Spot behind,
But Spot he barked and Spot he whined,
And soon made up his doggish mind
To follow under the wagon.

Away they went at a good round pace,
And joy came into the farmer's face,
"Poor Spot," said he, "did want to come,
But I'm awful glad he's left at home—
He'll guard the barn, and guard the cot,
And keep the cattle out of the lot."
"I'm not so sure of that," thought Spot,
The dog under the wagon.

The farmer all his produce sold,
And got his pay in yellow gold:
Home through the lonely forest. Hark!
A robber springs from behind a tree;
"Your money or else your life," says he;
The moon was up, but he didn't see
The dog under the wagon.

Spot ne'er barked and Spot ne'er whined,
But quickly caught the thief behind;
He dragged him down in the mire and dirt,
And tore his coat and tore his shirt,
Then held him fast on the miry ground;
The robber uttered not a sound,
While his hands and feet the farmer bound,
And tumbled him into the wagon.

So Spot he saved the farmer's life,
The farmer's money, the farmer's wife,
And now a hero grand and gay,
A silver collar he wears today;
Among his friends, among his fces—
And everywhere his master goes—
He follows on his horny toes,
The dog under the wagon.

—The Advance.

What the Summer School of Science Means to Me.

While listening to the lecture of Dr. Marshall Perrin on "The Modern Child," one peculiarity of his address took and held my attention throughout,—the necessity of presenting to the children continually, in himself, a noble and vigorous ideal. Only in this way could he truly hold and form them to his will. To gain this end, Dr. Perrin said, the teacher should neglect no means that would add to his own physical, mental and spiritual strength.

The Summer School of Science is, I think, a most valuable means to this end of which Dr. Perrin spoke, and one of which the teachers of the Maritime Provinces might easily avail themselves. In the first place, the mere physical value of a change of scene and thought is not to be despised; and physical and mental vigour would seem to go hand in hand. We all know the restless minds—and bodies—of the children of today, the nervous strain of the school room. We feel that we are following a true instinct when we seek relief from old grooves of anxious thought, something that will raise us out of ourselves to a higher plane from which we can see our own little affairs in a truer perspective. Then we can take courage for renewed and patient effort, and say, as Burns said once of his own difficulties:

"I've a hert aboon them a."

But this more optimistic view might not be permanent, were our minds not filled, to the exclusion of all cares, with new thoughts and ideas and ideals for the coming year. We are a school, composed, we think, some of the most vigorous teachers of the Maritime Provinces. Our instructors are men well qualified for the positions they hold—college-bred men, who have made their mark in the great schools of Canada and the United States, and whose teaching is worth listening to, and whose methods one would do well to note. Is it a wonder then, that, in this daily interchange of ideas, we feel the atmosphere of a wider culture and thought, the influence of strong and varied personalities; and that we discover in ourselves and others unguessed powers and possibilities.

The character of our instruction would seem to be two-fold; partly that which we can apply directly to use in our schools, partly that which widens our own knowledge of the subject studied and gives us

the newest ideas and discoveries in the scientific world.

I can speak with conviction of some of the newer, better ways of instructing, which I have learned while I have been attending the sessions of the Summer School. I have applied the method for memorizing Chaucer, used in our literature class, to teaching Grade V the few Shakespearian sonnets and other choice bits of poetry given in their reader, and found it to work admirably and give much pleasure to the pupils. Last spring, I tried, with my two classes, some of the experiments relating to the germination of a seed, which had been performed in the botany class at Liverpool and, I think, both the children and myself learned a good deal. I know that I can teach botany much better now than I could before. Perspective drawing, I have found, is particularly hard for most children to understand. My intention is, as soon as school begins again, to use some of the new methods which I have learned for teaching this subject; for they seemed to me most excellent. These are only a few of the many helps which I have received for the teaching of my Grades V and VI. I can think of many, many more, which I might use with profit, were I to teach high school work again.

But, after all, the greatest value of the Summer School of Science seem to be, not so much in improved mechanical methods, which the teacher learns so much, as in making him a broader, more enlightened individual—consequently, a better, wiser teacher and a more useful member of society.

I have heard it said by people who have not really thought much about the matter, that the teacher does not need this further training—that he would do better to confine himself to teaching properly "the three royal R's." Does it do any harm, do they think, to learn something about the great, noble battle against disease which is being waged, even sometimes in the face of death, by the scientists of today? Will it do any harm to tell the school children about this, and so help to educate the next generation to improved sanitary conditions? If a teacher knows more of the psychological part of physiology, should he not be the wiser and more charitable in dealing with those placed under his control; and, what is sometimes more difficult, with their parents? Will he teach reading any the worse for having learned a truer appreciation of what is really good in literature. Any one who has taught

the science required in our high school grades, knows that more than a mere knowledge of the text-book is needed; that one is continually prone to fall into errors which a fuller information about the subject would have made impossible. I think it is generally conceded that the broader and more exact one's knowledge of a subject, the better one is able to teach the elements of that subject. If that were not so, why do the principals of our best schools insist on having high grade teachers even in the lower grades? Is it not in order that the pupils may come at last to the principal's room properly prepared for the work he gives them?

I have spoken of the great usefulness of the Summer School of Science. There are many things which make it also thoroughly enjoyable: The interesting nature of the class work; the kindness of all the instructors about explaining difficulties; the excursions for field work which break up the monotony of the daily routine; the pleasant social evenings which pupils and instructors spend together occasionally; and last, but not least, the especially fine lectures which we hear from noted educators and others who have something worth while to say to us—all these things help to make the time pleasant for the teachers who attend.

For myself, I can say that I have derived untold pleasure and profit from the three sessions of the Summer School which I have attended; and that I have never yet belonged to a class which I did not think well repaid me for the time spent in it.

One thing which I believe we sometimes do not think of in reference to the Summer School, is the great benefit which comes from meeting in a new place each time. The teacher who habitually attends the sessions of the Summer School, soon knows a good part of our three Maritime Provinces. Not only that, but a great educational opportunity is afforded to the inhabitants of the place where it meets and the surrounding country, and one which past years have shown they are not slow to avail themselves of.

If there be sufficient funds next year, I should think it might be well to have additional classes in such subjects as French, German, child study, elocution; but I know that this is impossible at present, while the instructors which we have now receive only a very small portion of what their value is to us. The teachers who attend the school are willing, I am sure, to do what we can by paying a larger registration fee, but even that

will not be nearly sufficient, I know. I should also like to see, next year, the library of the building which we use for our classes open for a certain time each day, and a librarian in charge. We cannot easily bring with us all the reference books which we need, and we would be most glad to have the use of a library once in a while.

In closing, I would say: "Long live the Summer School of Science," and may it be more and more a tower of strength to the teachers of our provinces, and a noble aid in the work which is a teacher's first duty to his scholar—that of training—himself.

S. E. PRIMROSE ELLIOTT.

A Motto Poem for a Primary Room.

Suppose, my little lady,

Your doll shou'd break her head,

Could you make it whole by crying,

Till your eyes and nose are red?

And wouldn't it be pleasanter

To treat it as a joke;

And say you're glad "'Twas Dolly's

And not my head that broke."

Suppose you're dressed for walking,

And the rain comes pouring down,

Will it clear off any sooner

Because you scold and frown?

And wouldn't it be nicer

For you to smile than pout,

And so make sunshine in the house

When there is none without?

Suppose your task, my little man,

Is very hard to get,

Will it make it any easier

For you to sit and fret?

And wouldn't it be nicer,

Than waiting like a dunce,

To go to work in earnest

And learn the thing at once.—*Phoebe Cary.*

The following story might follow the REVIEW Supplement picture for September: Two little girls were hurrying to school in Parsons, Kan., fearful lest they would not arrive there until after the last bell had rung for the morning session. One said:

Let's kneel right down and pray that we won't be tardy."

"Oh, no," said the other. "Let's hike on to school and pray while we're hiking."

Three little bald heads in a green house,

House and heads together smaller than a mouse;

Cook opens the door and out they all run.

Bless us, they say, now isn't this fun?

—*Peas in the Pod.*

Specialization in Higher Education.

A Reference to King's.

TO THE EDITOR OF THE EDUCATIONAL REVIEW:—

SIR:—The conservation of the country's educational forces preventing unnecessary overlapping or duplicating in the teaching machinery of the colleges is a Maritime Province problem.

The Duke of Connaught, in his address the other day to the Convocation of King's College, at Windsor, referred to the necessity of the public understanding the importance of giving universities the support they deserve, for the benefit of the professions, the scientist and the journalist. This is axiomatic; but the policy of giving public support to colleges teaching sectarian doctrines seems to be regarded more and more as outside the line of direct educational work. The Presbyterian body has de-denominationalized both Kingston and Dalhousie. Acadia has obtained a grant from Mr. Carnegie on the claim that it is an educational institution first of all, and that theology is a branch of learning. Mt. Allison, while under the patronage and guidance of the Methodist body, is as unsectarian as Acadia. The two latter colleges have followed Dalhousie in securing the best business men obtainable on their respective governing boards. The policy of selecting lay, instead of clerical governors, resulting in up-to-date business methods being adopted, is largely responsible for the impetus given of late years to those three institutions, and to the increased confidence reposed in their methods by the public—especially the moneyed public.

The Duke, at Windsor, also referred to King's receiving its charter from King George III., in 1788, and being one of the educational pioneers of Canada. The last "Canadian Magazine," reviews the work of the various Maritime colleges and gives the following figures of the attendance at the following:

Dalhousie..	413
Mt. Allison..	243
University of New Brunswick..	249
Acadia..	230
King's..	44

Why King's, the "pioneer," established decades before any of the other colleges, should be so far out-classed and out-distanced by them all in the race of educational progress, ought to give its friends very serious consideration. What is at fault?

Within the past half a dozen years, all these insti-

tutions have entered upon a campaign for more money and have appealed to the public to support their schemes respectively for enlarged facilities for work. The results are about as follows:

Dalhousie..	\$500,000
Mt. Allison..	400,000
Acadia..	400,000
King's..	50,000

While thus the public has donated to these colleges \$1,250,000, King's—the pioneer—is the recipient of only \$50,000. There is some reason for this lack of appreciation of King's. It is the business of the true friends of King's to ascertain so glaring a discrimination against King's and seek a remedy; otherwise this ancient and picturesque seat of learning may be hopelessly swamped.

Those who are inclined to investigate the stagnation of King's in the midst of tremendous intellectual activity, might do well to compare the composition of the various governing boards. In the first place, at King's, the Archbishop of Canterbury is Patron. What his duties are, and how he contributes to the welfare of King's might be explained. Then there are two bishops and a host of deans and doctors—all contributing to the uplifting and efficiency of a university that in 1904—after a century of work—mustered only seven students! The attendance has grown since then, principally owing to a revival of the abandoned scientific department—but even with the added growth, such pitiable results are deplorable and call for a critical examination of the methods and organization of King's.

It is an old aphorism that those whose thoughts are most turned towards the eternal verities of the world to come are least qualified to deal with the carnal affairs of this world, and it is no reflection on the reverend, very reverend, most reverend and right reverend gentlemen forming the government at King's that their methods have failed to enlist public confidence, respect or support. If so, in the past, how about the future? The large endowments of the other colleges, permitting immensely increased equipment and wider range of study, must render competition in the future much more severe and strenuous than in the past. Even Anglicans are likely to have scant regard for either the work or degrees of an institution hopelessly in the rear and popularly discounted as a relic of the past.

A meeting of the college presidents of Nova Scotia, six or seven years ago, indicated to

the local government of Nova Scotia a plan for a technical college that would be an aid and not a competitor with them in scientific training. These same gentlemen might meet and discuss methods whereby competition might be eliminated in a larger number of other branches of study, enabling each college to be more thorough and efficient in its own lines. Specialization could be developed to the great advantage of students. The emigration of our own students to other countries to obtain training which they cannot obtain at home might be checked. A few subjects, well handled, would be more advantageous to a college than a vast range of subjects indifferently taught.

The great demands of modern civilization are every day increasing the scope of college education. In the multitude of new subjects demanding attention there is room for King's. It is needed. It has a future. The Duke of Connaught suggested journalism. Besides that there are a multitude of social questions—labor and capital, strikes and lockouts, property in land, government loans to farmers, labour on the farm, population, emigration and colonies, transportation and exchange, trade and customs tariffs, money, banking, credit and prices, finance and taxation, and statistics; also, bureaus of municipal research, affecting milk supply, infant mortality, industries that could be established in any locality, existing industries that could be bettered, resources that could be developed. A local fishery school; investigating and teaching the habits, food, migration, etc., of fishes, is greatly needed.

In the vast range of subjects appealing to the public, there is need of schools of research, investigation and thought—where students, by conversing first hand with nature, may gain the glory and dignity of a spiritual insight into all-pervading and all-controlling law.

EDUCATIONIST.

September 6, 1912.

Exercise in Language.

Change the singular to plural.

A black man is called a negro.

That workman has an industrious wife.

This Indian tribe has a fierce chief.

A deer or a chamois is a gentle animal.

The ox knocked my tooth out with his foot.

A volcano is a burning mountain.

The governor-general is a statesman.

Percy was a headstrong man.

Mr Smith says it is a wonderful phenomenon.

What the Kindergarten is Good For.

MYRA M. WINCHESTER, Educational Director of National Kindergarten Association, N. Y.

For the purpose of stimulating interest in the Kindergarten problem, and of drawing forth rational discussions of the issues involved in the subject, Mr. Edward S. Marsten, President of the National Kindergarten Association, offered three prizes for the best essays on "The Benefits of the Kindergarten."

The following extracts are taken from the essay which won the fifty dollar prize. It was written by Miss Carol P. Oppenheimer, of Savannah, Ga., who is a kindergarten teacher of much experience.

Miss Oppenheimer says: "A lady and gentleman who were unknown to each other, were seated together in a railway station and, attracted by a small child near them, fell into conversation on the subject of kindergartens. The gentleman remarked that he considered them a good thing for some children, but he could not see that the need was a general one. The lady, who was a strong advocate of kindergarten education, was curious to know just whom he included, and began by asking whether he would approve of sending the children of the very poor. He said that he would. 'What then,' she continued, 'of the very rich?' He thought they might be benefited too. 'Would you feel kindergarten valuable for a child in ill-health?' was the next query. To which an answer came in the affirmative. 'For a bashful child, or one begging constant notice?' 'Yes, for them, to be sure.' And when she had laughingly questioned him concerning many other kinds of children, he volunteered the admission that she was quite right, that kindergarten education was the heritage of childhood at large, and not of this child or that one.

"It is this claim of the right of every child to a kindergarten education that is made by advocates of the kindergarten, and the ground for the claim is the fundamental, universal character of the training that is given. The training is a vital process, based upon the natural instincts of the little child, and directed to physical, mental, moral and social development."

* * * *

"The kindergartner believes that the kindergarten should be in every school because of the acknowledged importance of the foundation in any work. She knows that by directing natural activ-

ities during the period from four to six years, many fundamental habits can be established, and at the same time the child's joy in living be increased; and she, therefore, believes it a ruthless waste to have to form these habits at a later age when the child might be using his conscious energies upon accomplishments which would not have been wise, or even possible, at the earlier period.

"The kindergartner believes that education should be a continuous process, and that the kindergarten in the school can be more completely unified with the work of the primary grades than the kindergarten elsewhere maintained.

"The kindergartner believes the kindergarten child to be prepared in some degree for the work of the primary school in every part of its curriculum. He has dealt with number in a variety of ways; has expressed ideas through at least a dozen mediums, including several forms of constructive handwork; has learned to love the beautiful in art, music, and language, and to express himself with some small power in each of these directions; has come into an appreciative unity with the nature world, and understood definitely a few of its secrets; has enjoyed many experiences concerning the human world about him; and over and above all, has learned to look upon school as a place of delights, upon growth as a thing to be coveted, upon his teacher as a good comrade, and upon his schoolmates as fellow-workers from whom he can count upon aid when he needs it, and whom it is his privilege to assist when he can.

"The majority of children leave school early, as is seen by a comparison of high-schools and grammar-schools in point of number, and the kindergarten gives an opportunity for one, or perhaps two additional years of schooling, at a most formative age, without delaying the time at which a child may, if needs be, go forth as a wage-earner."

* * * * *

"The kindergartner believes the child in her charge to be affected by every activity of the community in which he lives, and, therefore, considers it part of her responsibility to uplift that community wherever it lies within her power. It is thus that a great social settlement has often been the outgrowth of a single kindergarten.

"The parents' organizations which are associated with many kindergartens are frequently democracies in the best sense of the word, and strengthen the community life in the way that any finely democratic

organization, working actively for a vital cause, is bound to do.

"The greatest benefit of the kindergarten to the community, however, is not any single aspect of kindergarten education, but kindergarten education itself. The kindergarten is a community with all the obligations of a community. People live together, work together, play together, develop their own powers, contribute according to their own special gifts, make and observe regulations for the good of the whole. And this training to live successfully as a community member is given at the period which masters through the ages have called the most plastic, and which every adult who looks back upon his own experience knows to be the most permanently influential. Therefore, the kindergartner believes that when every child in the land has a kindergarten education, effective citizenship will increase, and one more step will have been taken towards the practical realization of the brotherhood of man."

We welcome the first number of *The School*, a new educational journal that appeared in Toronto in September. It is edited by members of the Faculty of Education of the University of Toronto. The initial number is an excellent one and will appeal to a wide circle of readers in schools and colleges as well as to the general public throughout the Dominion. Under the editorial management of so competent a body of men, it is fair to predict for *The School* a long and useful career, and the REVIEW wishes it the success that it will undoubtedly deserve if future numbers are on a par with the first number. The promoters will find, however, that success will depend upon a wide-awake business management and the payment of contributors to its pages. These are the elements of success in other magazines, and the educational journal need not be an exception.

A country school teacher was cashing her monthly check at the bank. The teller apologized for the filthy condition of the bills, saying: "I hope you're not afraid of microbes."

"Not a bit of it," the schoolmarm replied. "I'm sure no microbe could live on my salary!"—*Lippincott's Magazine*.

You may teach a child how to see things, but you cannot see them for him.

Nature Study of Animals.

HORACE G. PERRY, *Professor of Biology, Acadia University.*

The Cabbage Butterfly.

The Cabbage Butterfly is one of the easiest of the butterflies to capture and rear in confinement. It varies from a white to a slight yellowish above, and is yellowish below. Both sexes have, as a rule, black tips on the anterior wings; the male has a round black spot near the border of each wing, while the female has two spots on each anterior wing. Watch the female laying eggs in cabbage leaves and other cruciferous plants; gather some of the leaves and watch the caterpillars (larvæ) come out of the eggs; feed the larvæ till full grown, note their moltings, and their change to the pupal state (chrysalids); keep the chrysalids till the butterflies appear. Describe all the changes and note the dates of all moltings and transformations. You then have the life history of this butterfly.

Comstock says this butterfly "is, without doubt, the most injurious to agriculture of all the species of butterflies." He speaks of it as three-brooded in the north, and perhaps more in the south. It is present nearly the entire season, so that it needs to be fought constantly. It winters in the pupal state, the chrysalids being attached to sheltered parts of buildings, fences, etc. It is important in fighting this insect to thoroughly subdue the spring and summer broods, so that most of the work can be done before the cabbages begin to head. For this purpose kerosene emulsion has been recommended.

The life-history of this insect, in common with all butterflies and moths, may be represented as follows:

Egg; wingless form, caterpillar (larva); Resting or pupal stage (chrysalids or pupa); Winged form, butterfly (imago).

Note that most of the destruction is done in the wingless stage, as it is the time of intensive feeding; while the distribution is chiefly confined to the winged stage.

This butterfly is not a native of America, but was introduced, by accident, from Europe about the year 1860. It illustrates, very well, the danger of the spread and pest of introduced species of animals.

A Good Breeding Cage.

A good breeding cage for insects is made from an empty chalk box, fitted with a cover of wire cloth, of close mesh, such as is used in window-screens; the cloth mosquito-bar is a good substitute.

Place the box on end and fill with moist earth to the depth of about two inches, (keep earth moist); place a few sticks upright, slanting, in the box. Some insects like to attach their pupa to such supports. Provide a separate box for each species.

Collect all the caterpillars (larvæ) you can find, feed each frequently with fresh plants of the kind on which you found it, removing all remnants of the previous meal.

In the work of the more advanced pupils, each larva should be carefully described and drawn, and its general habits noted, the date of pupation and other changes given. In drawing a larva, name the anterior and posterior ends, the dorsal and ventral sides, the true-legs, and other particulars, markings, etc. The effect of fright or irritation should be noted. The larva of the sphinx moth is often found assuming a characteristic attitude—the fore part of the body raised in the air, in which position they have been fancied to resemble the Egyptian sphinx, hence their name. The larvæ of the Swallowtail Butterflies protrude two long yellowish horns from the head-regions when touched, even lightly, with a pencil. Notice, also, that some larvæ are covered more or less thickly with stiff, mostly short bristles or hairs, *e. g.*, the Woolly Bear (larva of the Isabella Tiger Moth), the Yellow Bear, and the larva of the Tussock Moth. Others have no such covering, and are said to be naked; *e. g.*, larva of Sphinx Moth and some of the Swallowtails. Is the larva of the Cabbage Butterfly naked or covered?

Most of our moths and butterflies pass the winter in the pupal state, but a few hibernate in the winged form.

The Mourning Cloak.

The Mourning Cloak or Yellow Edge is one of our best examples of a hibernating butterfly. It has been found flying among the trees as early as the last week of March, in the vicinity of Fredericton, N. B. It remains with us all summer, and is common during September and October.

It is readily detected by its size, and the colouration of its wings, being about two inches or more from tip to tip and of a dark-brown colour, edged with a yellowish border from $\frac{1}{8}$ to $\frac{1}{4}$ of an inch wide, and in the hand shows blue spots in the darkest part of the brown, next the yellowish edge.

Notice that its first pair of legs are greatly undeveloped, so that it has a strong claim to a place in the family of the so-called "Four-footed Butter-

flies," the *Nymphalidae*, the largest family of butterflies. Note, also, its wings are notched; hence it is a member of the "Anglewings," the *Vanessids*, a sub-family of the *Nymphalidae*, and its scientific name is *Vanessa antiopa*, and often called the Antiopa Butterfly.

In the outlines for spring and summer work, the larva and life-history of this butterfly will be considered.

In passing, you should notice its habit of playing dead when held in the hand. In this state you may safely move it from hand to hand, drop it to the ground, hang it up by its claws, still it shows no signs of life, but toss it a few feet above your head, it instantly revives and is away in a moment. This curious habit is, undoubtedly, a great protection to the "Yellow Edge," for we know that birds and other animals must be assured by the motion of their prey that it is alive or they disdain it. In your work with animals try to discover how each species protects itself against its enemies. Applying the principle of natural selection to this case, it would be said that in early ages those Antiopas which varied in the direction of this particular form of protection (playing dead when disturbed) have survived, while those that did not were devoured or otherwise destroyed; hence a race exhibiting this characteristic is in existence today. The same principle may also be applied to explain the degeneration of the fore pair of legs mentioned above. In general it is applied to explain degeneration due to parasitism, as well as the development of increased complexity in animal structure. Be on the watch for manifestations of this principle, talk it over with your more advanced pupils in the high school and academy classes. Set them thinking and working, direct their energies, and keep them going.

Other kinds of moths and butterflies may be more readily obtained than those I have mentioned; if so study them, even if names be unknown to you. The name is of little consequence; it will come later.

The Fall Web-Worm.

The Fall Web-Worm is a good subject, and is found at this season infesting fruit-trees. The caterpillars either burrow in the ground or in sheltered crevices just above it, forming slight cocoons of silk, interwoven with hairs from their bodies. Within these cocoons they soon change to chrysalids of a dark-brown colour, smooth, polished, and with a swelling about the middle.

The larva of the Emperor Moth is also near the pupation period. "It is a gigantic creature, from three to four inches long, and nearly as thick as a man's thumb; its colour is pale green; the large warts or tubercles on the third and fourth segments are coral-red. The others on the back are yellow, except those of the second and terminal segments, which in common with the smaller tubercles along the side are blue." Look for those larvæ, feed them on apple leaves; and later watch for cocoons three or four inches long, in shrubbery and fruit-trees. When found take them to your school. The Emperor will come forth in the spring.

We have grouped together moths and butterflies, but we must now make some distinction.

BUTTERFLIES.

1. Day flying, usually.
2. Wings erect when resting.
3. Antennæ knobbed.
4. Pupa a chrysalid.

MOTHS.

1. Night flying, usually.
2. Wings sloping when resting.
3. Antennæ not knobbed.
4. Pupa often in a cocoon.

Locusts, Grasshoppers and Crickets.

The insects often spoken of as grasshoppers are not true grasshoppers, but an allied race, the locusts. The two are readily distinguished by the locusts having short antennæ, while the true grasshoppers have thread-like antennæ much longer than their body.

The Katydid.

The Katydid is among the most interesting of our true grass-hoppers. They are large, green, tree-inhabiting insects, and are found throughout our range, though by no means so numerous as in the eastern and central United States. The whole body is of a green colour, and the wings are thin and veined, like a leaf. They afford a good illustration of what is called protective resemblance.

The crickets are widely distributed animals, and are mostly nocturnal in their habits. The chirp is made only by the male, and is produced by rubbing together the anterior wings. The rate of chirp is said to be entirely determined by temperature, so that we can compute the temperature by means of the formula:

$$T = 50 + \frac{N - 40}{4}$$

in which T stands for temperature, and N for number of chirps per minute.

Locusts.

The common, red legged locust lays its eggs during the fall in holes in the ground which the female drills by means of hard plates at the tip of the abdomen. The eggs, thirty to one hundred in number, are laid in a mass and covered with a gelatinous secretion. In these holes, an inch or so below the surface of the ground, the eggs pass the winter and hatch out in early spring into young locusts, looking much like the adults, only of smaller size, and without wings. The same is true of the crickets and grass-hoppers. By a succession of moltings they gradually change into the adult form, in other words the metamorphosis is said to be incomplete. Recall the changes in the life-cycle of a butterfly, in the latter the metamorphosis is spoken of as complete.

* * * * *

Observe the modes of locomotion; crawling, jumping and flying. How is the jumping effected? Compare the hind legs with the front legs as to size, shape and strength. Draw the front legs, also the hind legs. What reason would you advance to explain the greater development of the hind legs? Before answering, review what was said with regard to the principle of natural selection in our treatment of the Antiope Butterfly.

Books recommended for teachers: Text-Book in General Zoology, by Linville and Kelly, Ginn & Co., Boston; Introduction to Zoology, by Davenport, Macmillan Co. of Canada, Toronto; Nature Study and Life, by Hodge, Ginn & Co.; Farm Friends and Farm Foes, by Weed, D. C. Heath & Co. Boston.

The space for our studies for this month has been devoted to insects, but we wish the teacher and pupils to extend their activities in other directions as well, and to consider the outlines given as an example of what should be attempted in other fields.

Below is a list, with some suggestions which will supply additional exercises.

MAMMALS.—Squirrels, description and life history and comparison of the different kinds native to the Maritime Provinces. Note their preparations for winter, where and how do they spend it? Rabbits and Foxes, treated as above.

BIRDS.—The Hen, description and life history; compare it with other birds, as the Wild Duck, Wild Goose, Partridge, etc., etc. Migrations of birds, as shown in the Swallows, Blackbirds, etc.

REPRODUCTION STORIES.

A Faithful Dog.

A man who was once traveling with his dog took out his purse one morning to see if he had money enough for the day. He then left his room, leaving the dog behind.

When he went to pay for his dinner he found that a gold coin had been lost from his purse. On returning home in the evening, his servant told him that the dog seemed to be ill. It had not tasted a mouthful of food all day.

The man went at once to look at the dog. As soon as he entered the room the faithful creature ran and laid the missing coin at his feet. It then ate the food that had been laid down for it.

The man had dropped the coin in the morning, and the dog had picked it up. All day long he had held the gold piece, fearing even to eat, lest he should lose it before he could return it to his master.

A Beaver's House.

A man owned a beaver which he tried to tame. The little creature never, however, lost his natural instinct for building.

One day when the family was away, the beaver found his way into the house, and began to build. As there were no sticks or mud, he made use of anything he could find. He gathered boots, baskets, books, and gloves, and piled them up, just as he would have done in the woods.

When the man returned, he found the whole house in confusion. The beaver was lying snug in the cosy home he had built in a corner of the dining room.

Bird Helpers

A sparrow while flying among some telephone wires in a large city, hurt one of its wings. The bird dropped helpless into the street. In vain it tried to fly up to its nest under the eaves of a nearby house.

Two other sparrows heard the cries of the wounded bird. They tried to lift it, but they were not strong enough. At last they flew up to a tree, from which they took a strong twig, and together carried it in their bills to the place where the wounded bird sat.

Each held one end of the twig, while the wounded bird took hold of the middle. Supported in this way the bird was lifted to its nest.

The Dog's Count.

A dog belonging to a gentleman used to go every day to the butcher's shop for a piece of meat. Every time the meat was supplied the butcher made a cross on a board with a piece of chalk. The dog always waited to see this done, then he started for home with the meat.

One day the dog noticed the butcher made two crosses with the chalk instead of one. He at once seized a second piece of meat, and in spite of the efforts of the butcher to hold him, ran off with both pieces in his mouth.

The Old Horseshoe.

A teacher and his son were walking along a dusty road on a warm summer day. The boy saw something in the road, and on looking found it was an old horseshoe. His father advised him to take it along, but the boy did not seem to think the shoe of any value, so the father picked it up and put it into his pocket.

They passed through a little village, and there the father sold the shoe and bought some juicy cherries with the money.

Pretty soon the boy began to feel thirsty. He looked about for water, but could not find any. Then the father took from his pocket the bag of cherries, telling his son that he had bought them with the money obtained from selling the shoe. In this way he taught the boy the valuable lesson that everything that has value should be taken care of.

Selections For October.

Full fast the leaves are dropping
Before that wandering breath.—*Bryant.*

October turned my leaves to gold;
The most are gone now; here and there one lingers;
Soon these will slip from out the twig's weak hold,
Like coins between a dying miser's fingers.
T. B. Aldrich—Maple Leaves.

Now she showers
By brook and pool her white and purple stars,
And lifts in all her fields her golden-rod.—*Ibid.*

Autumn's earliest frost had given to the woods below
Hues of beauty such as heaven lendeth to its brow.
—*Whittier.*

The sweet calm sunshine of October, now
Warms the low spots; upon its grassy mould,
The purple oak-leaf falls; the birchen bough
Drops its bright spoil like arrow-heads of gold.
—*Bryant, October, 1866.*

Bending above the spicy woods which blaze,
Arch skies so blue they flash, and hold the sun
Immeasurably far; the waters run
Too slow, so freighted are the river-ways

With gold of elms and birches from the maze
Of forest.—*Helen Hunt Jackson—Verses October.*

I always write the name October with especial pleasure.
There is a secret charm about it not to be defined. It is
full of memories, it is full of dusky splendours, it is full
of glorious poetry.—*Longfellow.*

And school girls, gay with aster flower, beside the meadow
brooks,
Mingled the glow of autumn with the sunshine of sweet
looks.—*Whittier.*

Take a world full of crimson,
Mix well with warm gold,
And blue tints and bronze tints,
And brown tints, I'm told—
Quite sober—
A dash of pure purple,
A pinch of pale pink
And green just to suit you,
You'll have then, I think—
October!—*Selected.*

CURRENT EVENTS.

Experiments have been made in Algiers by French officers with a new vehicle for the desert, consisting of a kind of sledge mounted on six wheels, driven by a fifty horse-power motor, and equipped with a propeller working in the air. The vehicle carries three persons and travels easily over the rolling sand at a speed of twelve to eighteen miles an hour. It is hoped, by fitting it with wings, not only to facilitate its progress, but to enable it to leap over objects in its path.

A Swiss expedition has succeeded in crossing Greenland from west to east, over the barren ice. The members of the expedition have arrived at Reykjavik, the capital of Iceland, all well. They started from Jakobshavn, Northwest Greenland, and were three months in reaching the east coast. A Danish expedition is to cross next year, by a more northerly route.

Methods of making an artificial light with an almost perfect resemblance to daylight have been simultaneously discovered in England and in Germany. Most of our present artificial lights have an excess of red and a deficiency of blue.

An ocean-going ship using oil engines, the second to sail from Europe and the first to cross the Atlantic, has recently visited New York on her return trip from Vera Cruz to Hamburg. She has no smoke stack. The exhaust gases pass out high above the deck, through a hollow mast.

The British government has decided to make a large addition to its fleet of hydro-aeroplanes. It is reported that by the use of these machines in recent experiments, bombs were dropped down the funnels of warships with absolute accuracy from a height of a thousand feet. The new oil-driven battleships now being designed will have armoured funnel shields to protect them from the bomb-dropping aeroplanes; and will also be fitted with guns of high elevation for attacking air craft.

A London inventor has produced a loud talking telephone. By an arrangement of the instrument, the sound of a voice may be increased in transmission, so that words spoken in one room in an ordinary conversational tone will seem like a loud shout to a listener in another room. As at present used, it provides a means of communication from room to room in offices or factories, by which a conversation may be carried on without either the speaker or the listener having to go to the instrument. The receiver will catch words that are spoken five or six yards away, and the transmitter will so magnify the sound, if adjusted for that purpose, that the words can be heard by a whole room full of people.

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ST. JOHN, N. B.

New Brunswick School Calendar.

1912-1913

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| 1912. Thanksgiving Day Oct. 28. | May 23. Empire Day. |
| Dec. 17. Examinations for III Class License. | May 24. Victoria Day. |
| Dec. 20. Schools close for Christmas vacation. | May 27. Examinations for Teachers' Licenses, III Class. |
| 1913. | June 1. Last day on which Inspectors are authorized to receive applications for Departmental Examinations. |
| Jan. 6. Schools open after Christmas vacation. | June 3. King's Birthday. |
| Mar. 20. Schools close for Easter Vacation. | June 6. Normal School closing. |
| Mar. 26. Schools open after Easter vacation. | June 10. Final Examinations for License begin. |
| May 18. Loyalist Day (Holiday in St. John City). | June 16. High School Entrance Examinations begin. |
| | June 27. Schools close for year. |

Nova Scotia School Calendar,

1912

The full number of legal teaching days in the half school year to the end of June is 103 days. School year, 206 teaching days.

- Oct. 28 Dominion Thanksgiving Day.
Nov. 11. Second Quarter of School Term begins.

An English experimenter has found that by boiling seaweed in ammonia he can make an excellent substitute for rubber.

The influx of United States people into Western Canada is continuing at a rate unprecedented. It is estimated that one hundred and seventy-five thousand will have crossed the border within the present fiscal year.

The movement to make Galway, on the west coast of Ireland, the eastern terminus for a fast line of steamers running to North Sydney, Nova Scotia, is again mentioned. By this route it would be possible to cross the ocean in four and a half days.

Prince Arthur, of Connaught, son of the Governor-General of Canada, represented Great Britain at the funeral of the late Emperor of Japan, which took place on the thirteenth and fourteenth of last month, with solemn and impressive ceremonies. The body of the late ruler was buried at night, in the presence of the highest dignitaries of the empire and of many thousands of his people, but in perfect silence, not a word being spoken. When the body of the dead emperor was about to leave Tokio for the place of burial, General Nogi, the Supreme Military Councillor of Japan, in accordance with an old Japanese custom, killed himself, that he might accompany his friend and master to the other world. His wife did the same. They also were buried with the highest honours, fifty thousand people joining in the funeral procession;

for the sacrifice was looked upon by the Japanese as an act of the highest patriotism.

The expedition to Baffin's Land in search of gold, which set out in July, has returned, reporting no discovery of gold, but a valuable deposit of coal instead.

According to a plan outlined by a member of the government, when Home Rule is adopted in the United Kingdom, not only Ireland, Scotland and Wales, but Lancashire, Yorkshire, and other sections of England, may have separate legislatures, like those of the several provinces of Canada. The Imperial Parliament could then devote its time to imperial concerns. There have been serious factional disturbances in the north of Ireland in opposition to the Irish Home Rule bill, with continued threats of rebellion in case of its becoming law.

Running into James Bay are four rivers, the Rupert and Nottaway from the Quebec side, the Moose and Alderney from the Ontario side. They drain a great watershed, composed of clay and marl. The agricultural possibilities of this great basin are said to be more favourable than anything now available in the St. Lawrence valley. The district will soon be opened up for settlement.

The authorities of the University of North Carolina are asking for legislation to make college hazing a criminal offence.

An English statesman has gone to West Africa to study the situation with a view to forming a plan for the union

of Northern and Southern Nigeria. It is expected that the new organization can be made ready within a year.

Eight years ago, Great Britain sent a military force into Thibet, and concluded a treaty by which that country agreed not to give special privileges to any other power without the consent of Great Britain. On that occasion, the Dalai Lama, the ruler of Thibet, fled to Mongolia. Later he went to China, and then returned to Lhasa, his capital city; but in 1910 he was deposed by the Chinese authorities and fled to India. He has now returned; and Great Britain is supporting him to the extent of protesting against a Chinese military expedition being sent to Lhasa. It is rather curious that after fleeing from the British, he should now, so soon, be looking to the British for help.

The district added to the Province of Ontario by the new boundary legislation of last winter, is, to be known as the District of Patricia.

Japan and China, as well as the nations of South America and western Europe, are preparing for the trade which is to pass through the Panama Canal. The Tehuantepec Railway, however, which is already in operation, will be able to compete with the canal almost on equal terms. A considerable amount of Canadian trade now goes from ocean to ocean by that route.

The Canadian Parliament will meet next month, principally to decide in what form Canada shall contribute to the support of the British navy.

There have been fierce battles with the insurgents in Mexico, but apparently without any decisive result. In Nicaragua, the rebellion seems to be nearly suppressed.

Brazil is taking measures to save the whales in the South Pacific Ocean. It is said that they are in danger of being exterminated by American whalers.

There are one hundred and ten languages spoken in Canada today. This is the Bible Society's estimate, in connection with placing the Scriptures in the hands of immigrants.

The long-dreaded war in the Balkans seems now inevitable. Though the great powers of Europe are still striving to preserve the peace, Greece, Bulgaria, Serbia and Montenegro are ready for war with Turkey; and actual hostilities may have already commenced. The great danger is that other powers may be involved.

SCHOOL AND COLLEGE.

The York-Sunbury-Queens, N. B., Teachers' Institute will not meet this year.

Dr. W. H. Magee, formerly principal of the schools at Parrsboro and Annapolis Royal, N. S., and more recently principal of the schools at Watrous, Sask., has been appointed inspector of the schools of Battleford, Saskatchewan district.

Mr. W. C. Hains has charge of the school at Middle Southampton, N. B. The school room has been repainted, new desks are being placed, and funds are being raised to enlarge the grounds.

Amherst, N. S., with her increased schoolroom accommodation is again facing the problem of housing her school

population. In the fine new building which has been open only seven months, all the available room is now occupied, and the average enrolment in each department is almost fifty-five.

Miss Neva McDonald, of Hantsport, is the teacher of the public school at Newtonville, N. S.

The University of New Brunswick has opened a law course. Mr. J. D. Phinney and Mr. P. J. Hughes are the lecturers this year. Nearly fifty new students have entered the University classes this year.

Dr. D. W. Hamilton, of the New Brunswick Normal School, has been appointed teacher of physics in the normal school for teachers, Macdonald College, Quebec. He is also taking an advanced course in agriculture for the B. S. A. degree.

Miss Mai I. Messenger, B. A., who left Wolfville a few years ago and has been teaching in Vancouver, B. C., has taken a position on the staff of the Okanagan College, at Summerland, B. C., of which Everett W. Sawyer is President.—*Kentville Advertiser*.

The Technical College opened at Halifax on Tuesday, September twenty-fifth.

Nelson shields have been presented with appropriate ceremonies to the leading schools throughout the Maritime provinces during the past few weeks. They are made from the metal of Nelson's old flagship the *Victory*; and are designed to foster feelings of loyalty among Canadian children. Already more than 2,000 have been distributed in Canada. They are the gift of Lord Strathcona.

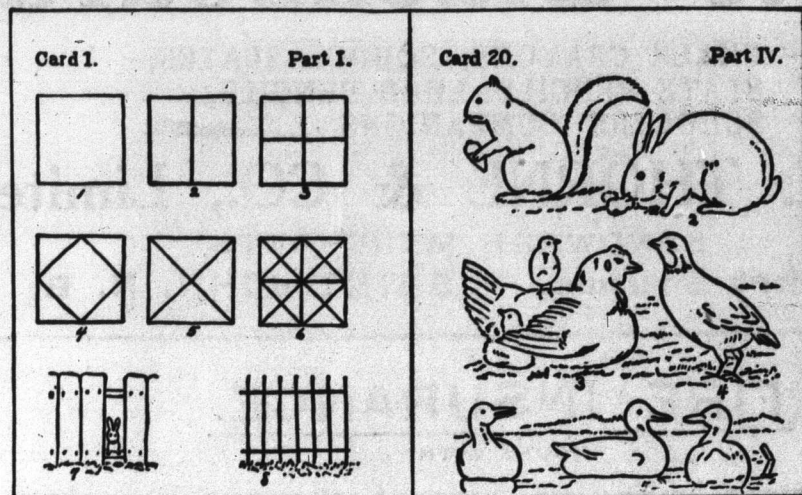
The Kings-Queens Counties Teachers' Institute will be held at Sussex, October 24th and 25th. See advertisement on another page.

RECENT BOOKS.

Nothing seems to have been omitted from that excellent book, *Practical English Composition*, by Misses Carolyn M. Gerrish and Margaret Cunningham, of the Dorchester High School, Massachusetts, to lessen its usefulness. From the beginning, students are required to do creative work and to elect, arrange and express ideas so as to make the best use of what they know. Models are used to encourage and develop original thought and expression. Each chapter provides ample exercises for students, and topics for themes. It is the purpose of the book to accomplish four things for the student: (1) To give him continually increasing power in original composition; (2) to train him in habits of accuracy in mechanical form (spelling, punctuation, sentence structure, etc.); (3) to develop his interest in good literature, and (4) to stimulate his interest in the affairs of the world in which he lives. The book is an admirable classroom assistant for the teacher to give a good foundation in difficult English composition. (Cloth; 436 pages; price, \$1.00. D. C. Heath & Co., Boston, Mass.)

The author of *Essentials of Physics* is convinced, after a long experience in teaching that subject, that the simplest and most effective method is by question and answer, which is employed by every teacher in the classroom. This is the only method by which the teacher can be sure

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A very practical little text-book is *Materials and Construction*, the purpose of which is to present studies in the elementary laws of construction, such as will give the student an understanding of the more simple formulas, and ability to apply them to everyday practice. No attempt is made to cover any advanced engineering work, the aim being rather to afford material assistance for the proper training of the young mechanic, or for assistants to superintendents. The problems are very practical. (Cloth; pages, 193; price, 90 cents net. P. Blakiston's Son & Company, 1012 Walnut Street, Philadelphia.)

The Romance of the Cid (lord or master), by Pierre Corneille, is one of the greatest dramatic creations of France. It is worthy of a keen and careful study, and the fitting introduction with notes and vocabulary of the text before us is well adapted to make it profitable to the student. (Cloth; pages, 178. Ginn & Co., Boston.)

The *Junior Course of English Composition* suggests a series of lessons suitable for boys and girls between the ages of twelve and fifteen. Attention is paid to the simpler requirements of composition, such as punctuation and other mechanical accessions to the art. The course of work outlined will be found to be practical and stimulating. (Cloth; pages, 228; price, 1s 6d. University Tutorial Press (W. B. Clive), New Oxford Street, London, W. C.)

A *Junior Course of English Grammar* provides a course of study for pupils of the lower and middle forms of secondary schools. The first eleven lessons deal with the classification of the parts of speech, their relation to one

another and their use in phrases, clauses and sentences, with elementary analysis and parsing. The second part of the book deals with inflexions and the rules of syntax. The third section deals with analysis and parsing more fully and is supplementary to the previous sections. (Cloth; pages, 206; price, 1s 6d. University Tutorial Press, London, W. C.)

Quaint Old Stories (to read and act) is the attractive title of a collection of some thirty stories, gathered from the literature of all countries and set in dramatic form for reading and acting. They are not plays, but "quaint old stories," in which much of the action is carried on by conversation, and they are as suitable for reading as for acting. The book will prove a pleasant addition to the teacher's library. Cloth; pages, 177; price, 35 cents. Ginn & Company, Boston.)

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