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FOR THE ATLANTIC PROVINCES OF CANADA.

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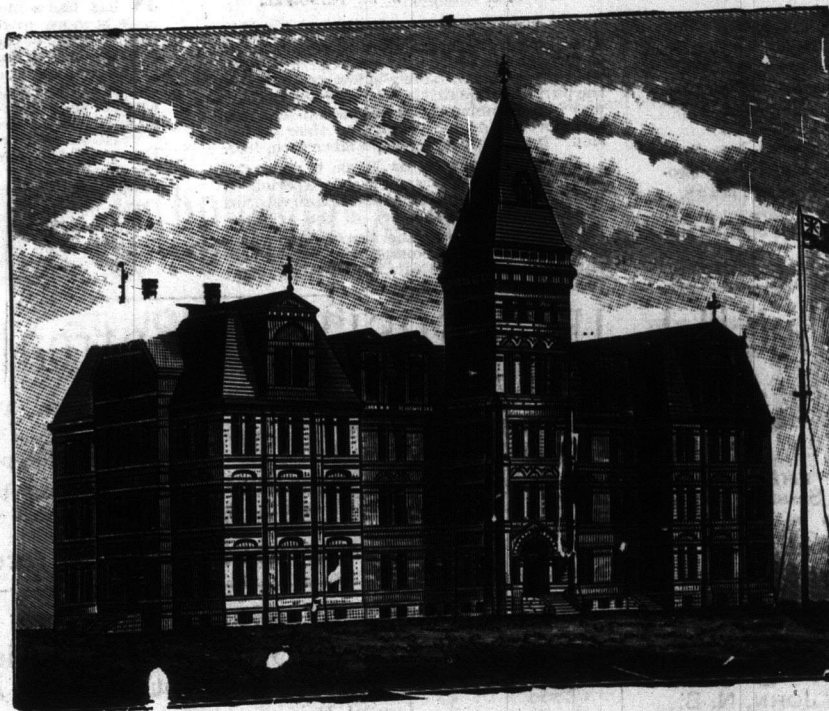
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G. U. HAY,
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FROM many portions of these provinces comes the report that teachers are scarce, and many schools are in consequence closed. The effect of this should be to increase salaries if the teaching profession is to retain its attractiveness; and it is another strong argument for the centralization of schools.

IN the death of Mgr. Connolly, of St. John, the Roman Catholic church has lost one of its most devoted priests, and the public an earnest and consistent advocate of all notable measures of reform. During his busy life of nearly fourscore years, his honorable and self-sacrificing labors for the public welfare earned the esteem and respect of all classes, and of every denomination of Christians.

CASSELL & COMPANY, Ludgate Hill, London, offer a series of 750 prizes, open to boys and girls of the British islands and colonies, for the best colored maps of the Empire. Full particulars are given in "Chums" for October, the boys' paper, published by the company.

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WE have received from Dr. J. George Hodgins, Librarian and Historiographer of the Education Department of Ontario, a copy of a pamphlet containing an address prepared by him for the unveiling of the bust of the Rev. Dr. Ryerson at Victoria University on the 15th November last. The address is valuable, containing a summary of the great work of Dr. Ryerson in founding the public school system of Ontario.

THE death, at sixty-five years of age, of Sir John George Bourinot, clerk of the House of Commons, Ottawa, removes one who has been prominent in Canadian public life and letters for more than a quarter of a century. His knowledge of constitutional questions made him an authority not only in Canada but the mother country. In the field of Canadian history he was almost equally well known, and several volumes and many magazine articles attest to his industry and skill in research. This same diligent spirit was manifest in his work in connection with the Royal Society of Canada, of which he was the honorary secretary, and of which he may be said to have been the founder. The yearly volumes of its proceedings are monuments of his labor and supervision. His genial presence, courtesy of manners, unfailing attention to those who sought his decisions, will cause him to be held in grateful recollection.

THE Dominion Educational Association is to meet in Winnipeg next July—little more than six months from this time. As yet we have heard of no steps being taken to form the programme, and, what is more important, to secure a low fare by railway for those who may attend from the east and west. To make the association more national, and less provincial than it has hitherto been, all portions of the Dominion should be represented, and broader phases of our educational work discussed. Will the executive committee wake up?

A FINE new building for manual training and domestic science teaching was opened in Halifax October 17th. The building and equipment are admirably suited for the purpose, and Halifax and its public spirited school board are to be congratulated for this fresh instance of the application of modern methods to their schools. In an address at the public opening, Mr. T. B. Kidner pronounced the building the best he had yet seen devoted to this practical subject. Supt. A. H. MacKay said the city of Halifax has now a building and accommodations sufficient to give every pupil in grades seven and eight a course of forty lessons—the boys in manual training and the girls in domestic science.

MR. D. R. JACK, as editor of *Acadiensis*, is doing notable work in helping to preserve and render permanent the history of our past. The October number, which seems better in artistic finish and excellence of contents than any that has preceded it, closes the second volume. Mr. Jack says that though the magazine has been published at a loss, it will be continued with the hope that the public may become more appreciative. The high character of the publication with the important work it is doing should meet with ample financial encouragement. The October number contains, in addition to several important historical papers, the re-print of Dr. I. Allen Jack's article on a Sculptured Stone Found at St. George, N. B. This paper was published years ago in the proceedings of the Smithsonian Institution at Washington, and readers will welcome its appearance in this more convenient form.

I find the REVIEW very helpful—more even than I anticipated.

NEW SUBSCRIBER.

I have taken the REVIEW for a number of years, and each year it increases in interest. I would not be without it.

H. E. W.

TRACADIE AND ITS LAZARETTO.

A few weeks ago the editor visited Tracadie, in eastern New Brunswick, and noticed some points that may be of interest to the readers of the REVIEW.

The large majority of the inhabitants are French, but speak both English and French, preferring English. This is in direct contrast to the villages of Caraquet not far away, where the French language is spoken almost exclusively.

What gives a stranger a pleasant impression of Tracadie is the fact that every one whom he meets—man or woman, boy or girl—has a cheery, courteous salutation for him. It seems to be the custom of the place, it is given so naturally; and a genial pleasant custom it is, and one worth observing.

The Catholic chapel of the village is a large building, capable of holding nearly a thousand people; but what attracts the attention of the visitor is the perfect symmetry of the interior, the lack of which is too often observable in country churches.

The village boasts of two school houses, a new one provided with large, well lighted class rooms and a playground, and an old one standing by the roadside. Now the windows of a deserted building standing by the roadside are often the target for the small bad boy with a stone. But here not a pane of glass was broken, which spoke volumes for the breeding of the Tracadie boys.

The country here, like all the east of New Brunswick, is level, with farms fairly well cultivated extending but a short distance back from the shores of the Gulf of St. Lawrence. The women were working in the harvest fields with the men, their heads covered with bright colored scarfs. This custom of women helping to gather the harvest, and the level farms, reminds one of the fields of Normandy.

The greatest object of interest at Tracadie is the Lazaretto. Many years ago a ship from the Levant appeared in the Gulf of St. Lawrence, some of the sailors sick with that terrible scourge, leprosy. The disease was unknown to the people, and the sailors were brought ashore and nursed, but after a time many of the inhabitants were afflicted. Measures were then taken to prevent its spread. But some were hidden by their friends. About forty wretched captives were placed on an island in the Miramichi, where they lived more like wild beasts than human beings. People fled at their approach. Food was

taken to them in boats, and thrown upon the shore as if to dogs. The government built a lazaretto at Tracadie, and their condition was improved. Now there is a handsome building erected and maintained by the Dominion government. Their every want is attended to by the faithful Sisters of Charity, and their condition is made as cheerful and happy as possible. They number now only eighteen. Under the medical supervision of Dr. A. C. Smith, whose reputation as an authority on leprosy is world-wide, there is a prospect that the disease may be stamped out after a generation or two. The sources of fresh contagion from abroad (there are three Icelanders in the Lazaretto now, who came to this country afflicted with the disease some years ago), and the hiding of diseased ones by their friends are the two sources of danger at present; but the latter causes less anxiety owing to the watchfulness of the authorities and the care bestowed upon the unfortunates in the Lazaretto. This has gained the confidence of the people.

A NEW BRUNSWICKER IN GERMANY.

The following extracts are taken from a private letter to the editor, written by Mr. Geo. J. Trueman, well known to New Brunswick teachers. Mr. Trueman and his wife are spending the year at Berlin, and Mr. Trueman is attending the university. His comments on educational matters in Germany will be sure to interest our readers. Under date of September 23rd, he writes:

"I have daily conversations here with three teachers, and as my knowledge of German, especially three months ago, was very insufficient, we have often occasion to use Latin as a common language. It is a source of unending amusement to them that we do not adopt the Roman pronunciation. I have been trying to defend the English pronunciation, but really from my present standpoint, the action of our board, as noted in the REVIEW (of August) seems a step backward.

This country is in many ways conservative; but when the authorities think a change is desired, they do not ask the consent of the teachers before they make it. For instance, a pamphlet has just been issued and distributed among the teachers, laying down several new principles. It states that the compulsory term of years for every student will hereafter be eight instead of seven years, from six years of age to fourteen; that drawing must be taught not from books, as previously, but from nature, the pupil using cardboard and charcoal, or crayon. The amount of work demanded in drawing would be quite appalling to us in Canada. Also the last step has been taken in making the spelling phonetic. While this does not mean so great a

change by any means, as it would mean in English, it nevertheless materially changes the appearance of a large number of words in common use, as 'Thür' and 'thun.' These are to be written 'Tür and tun' after Easter in all schools, and after October in some. These changes mean that the teachers in drawing must in the coming vacation go into art schools and learn to draw from nature, and that teachers of all subjects accustom themselves as quickly as possible to the new spelling, etc. By a recent regulation a teacher is held responsible for any damage a pupil may do while under his care, and for any injury he may do. A teacher of chemistry was recently compelled to pay all doctors' bills and to give a yearly allowance of \$120 to a girl who had had her eye injured in a chemical experiment. The teachers are required by law to make every term a certain number of excursions with their classes, going once each year to the magnificent Zoological Gardens. Not long ago a boy, who got out of the teacher's sight for a moment, threw a stone and killed a bird, whereupon the teacher was forced to pay sixty marks. We would think that rather hard in Canada. I have already visited some schools here, but as I am planning to visit many more, I will not yet say what might seem afterwards as hasty conclusions. The girls are not allowed many privileges here from an educational standpoint. The excellent gymnasium (high schools) of which every one has heard, are, at least in Berlin, open only to boys. Girls can attend the university as hearers, but are not allowed to matriculate. If they wish to prepare for the university, or for teachers, they must attend private schools. During the month of August I attended classes in the university, and was very pleased with that institution. There are some 10,000 students in attendance, and a staff of professors as good as the country can produce. The English Seminar has many students and several professors. The whole university, with its affiliated institutions, libraries, laboratories, etc., offers almost unexcelled opportunities for study, and at moderate cost."

A HISTORIC INCIDENT AND ITS SEQUEL.

Every school boy and girl has read of the escape of King Charles II, after his defeat at Worcester by Oliver Cromwell 250 years ago. After the battle Charles fled into Shropshire and sought refuge at the house of a farmer named Penderell, who lived at Boscobel. He sheltered the king for several days, when means were found for his escape from the kingdom. The story is thus told by the historian Hume:

To this man (Penderell) Charles intrusted himself. The man had dignity of sentiment much above his condition, and though death was denounced against all who concealed the King, and a great reward promised to all who should betray him, he professed and maintained unshaken fidelity.

He took the assistance of his four brothers, equally honorable with himself, and, having clothed the King in a garb like their own, put a bill into his hand, and pretended to employ themselves in cutting faggots. Some nights he lay upon straw in the house, and fed on such homely fare as it afforded.

For a better concealment he mounted upon an oak, where he sheltered himself among the leaves and branches for twenty-four hours. He saw several soldiers pass by. All of them were intent upon the search for the King, and some expressed in his hearing their earnest wishes of seizing him.

This tree was afterwards denominated the Royal Oak, and for many years was regarded by the neighborhood with great veneration.

Charles was in the middle of his kingdom, and could neither stay in his retreat nor stir from it without the most imminent danger. Fears, hopes, and party zeal interested multitudes to discover him, and even the smallest indiscretion of his friends might prove fatal.

Having found Lord Wilmot, who was skulking in the neighborhood, they agreed to put themselves into the hands of Colonel Bentley, a zealous Royalist, who lived at Bentley, not many miles distant. The King's feet were so hurt by walking about in heavy boots or countryman's shoes, which did not fit him, that he was obliged to mount on horseback, and he travelled in this situation to Bentley, attended by the Penderells, who had been faithful to him.

When Charles II became King, Farmer Penderell was suitably rewarded for his devotion, and, as a further mark of royal favor, one of the estates which the monarch granted was made chargeable with a perpetual payment of £100 to each of the four brothers, and £50 to a sister, Elizabeth Penderell, who shared the family secret and gave full proof of her ability to keep it.

An interesting sequel to this well known story is told in the *Boston Journal* of a recent date:

Dr. Thomas Walker, of St. John, N. B., is a descendant of Elizabeth Penderell, and it is as such that he gets the annual grant of \$50. There were five families descendant from Elizabeth Penderell, and the gratuity was divided, each getting a fifth. The payment is made every spring. Once, when in England, Dr. Walker sought to learn something further of the gratuity and of the estate that pays it, but the solicitor of Litchfield, through whom the money comes, was absent, and he was unable to get any information. All he knows is told above, but the money is a reality. His father got it before him, and his son, Dr. T. D. Walker, who is also a physician of St. John, will get it after him.

NATURE STUDY.

SOME CURIOUS HOMES OF INSECTS.

If you look along the branches of certain kinds of willow, this month, you will find "cones" on the ends. These are called "willow cones" from their resemblance to the cones on the fir and spruce. But the latter contain seeds, and the willow cones do not nor were they ever intended to hold seeds. If you examine one closely you will find that it is

made up of thin dry leaves which overlap each other, much the same as shingles do on a roof. And you may find a hole or door-way at the end if it is an old one. On cutting open the "cone" you will see that it is hollow, as if some insect had made its home there. And this is what it really is—an insect home. Let us see if we can find out something of the history of this insect and how its house was built.

During the summer the mother of the insect stung the end of the branch and deposited an egg in the wound. We cannot tell how the house was gradually built round this egg, but the end of the delicate branch must have been poisoned and become swollen by the insect's sting, and the branch continuing the effort to grow and put forth fresh leaves, these became packed together, forming the little cone-like house that you see. When the house was built the egg was hatched and brought forth a little "worm," or larva. If there is no door to the house, it may still be inhabited, and if you cut it open you will find inside the little "worm," or perhaps it has developed into the pupa that comes before the full grown insect. If it is still a "worm," it will wriggle uneasily at finding its home broken into. Its house room is small, but stored all round with juicy, young willow food, and all the insect has to do is to grow and change its form, all the time eating the walls of its house, which gradually becoming thinner until it can bore a hole, and find its way out and begin a free life in the air.

What an easy way this is to "bring up" an insect; for all that the mother did apparently was to sting the branch and carelessly fly away, leaving the willow to prepare a home and food for her offspring.

Look along the hedges for the golden-rod. It no longer bears its yellow flowers, but in sheltered places it still keeps its feathery seeds, which may enable you to recognize it. On some of the stems you will find swellings. Examine one of these. If there is a hole, it is a sign that the insect has given up housekeeping and gone to live elsewhere. If there is no hole, cut off the swollen part of the stem, take it into the house, put it into a glass, and cover the top with a piece of muslin so as to admit the air freely. Then watch for the insect to come out.

If you find the houses on the willows and golden-rod have doorways, you will have to wait for another season. Then begin your calls earlier and you may find the insect at home.

If you live in the neighborhood of oak trees look on the ground among the fallen leaves for the oak galls. Examine them, to see if these insect houses are dry and empty or inhabited.

QUESTIONS FOR NOVEMBER.

Have the colors of autumn leaves been as brilliant this season as last?

What trees still keep their foliage?

What plants still retain their fruits after the leaves have fallen?

What birds still remain with us?

Some animals begin to turn white this month. Can you think of any reason for this change of color?

Have you noticed the buds on the branches and twigs of trees since the leaves have fallen? When were these formed? Notice how well protected they are for winter.

Have you noticed any late blossoms this month, as the strawberry, dandelion, chickweed, etc.?

The leaves that have fallen from the trees are dry and have lost their green color. What has produced this change?

OUTLINE OF COURSE IN NATURE STUDY.

Animals. Domestic animals, common birds and insects. Either study the animal with the children, or send them to observe, and question them as to what they have seen. Follow a definite order, an outline in study and in questioning. Get a description, made up of short statements, which the teacher writes on the board and children copy. Have forms cut from paper, and drawn (traced). Look on apple and other trees for chrysalises and take them in the house and watch their development later. (See previous numbers of the REVIEW).

Plants. Herbs in spring and fall, trees in winter, fruit-trees in fall. Study by outline; trace leaves, model and draw fruit; make a description, to be written on blackboard by teacher, and copied by children for busy-work. Collect plants as they appear, and teach the children to know as long a list as possible.

THE MONKEY'S POINT OF VIEW.

A Naturalist came upon an Ourang-Outang while the latter was taking his siesta under a banyan tree in a forest. The Naturalist viewed him for a time in silence and then apostrophized him thus:

"Base brute, thou liest there with no thought beyond the gratification of thy instincts. Insensate animal! Thou hast never had the glorious privilege of eating of the fruit of the Tree of Knowledge of Good and Evil."

"Pardon me!" said the Ourang-Outang, awakening suddenly, "I've had a few nibbles. Several years ago, a Scientist visited our wood, and he and I became quite chummy. He was always urging me to evolve and contended that it was quite an easy job. All I had to do, he said, was to strike fire with flint, make some stone implements and mud pottery, and haul off my neighbor's wife, thus establishing the sacred institution of the Family; but I have a strain of caution in my blood, and, as you see, I have rather a tidy berth here, so I demurred at the idea of exerting myself so tremendously for the doubtful good of obtaining something he called 'Progress.'"

"Well, the more I hung back, the more the Scientist urged and coaxed; so we finally decided that if he would pay all the expenses, I would take a trip around the world with him, study various phases of civilization, and then, if I thought the game worth the candle, I would evolve for him while he waited.

"I never was so fagged in my life. He hauled me over land and sea and showed me pleasures and palaces, steam yachts and automobiles, libraries and pictures; wine, women and song; in a word, the kingdoms of earth.

"When I had seen them all, I said, 'Get thee behind me, Satan. This splendid civilization is a masterpiece, but a masterpiece of fools. Half of the civilized world toils that the other half may play various silly games that they call Society, Power and Fame.'"

"What did he reply to this?" asked the Naturalist.

"He had no time to make reply," answered the Ourang-Outang. "Knowing him as well as I did, I was sure that he would convert the entire Bander-log people to his views and have all the monkeys in the country doing various tricks in their frantic efforts to evolve; so I simply cracked his head open with a cocoanut, and disposed of the question without further argument."—*Mrs. Wilson Woodrow in Life.*

The regular monthly arrivals of the EDUCATIONAL REVIEW are always eagerly watched for, and I am never disappointed.
M. E. M.

CARDBOARD WORK—SECOND STAGE—NO. 1.

T. B. KIDNER.

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The course of work to be outlined for the second stage of this series is similar in its design and principles to that of the first. With the experience gained during the working out of the simpler models, however, much more ambitious work may be attempted and more complex manipulations be included in the various exercises.

The development of the constructive faculty of the pupils; the training of their reasoning powers by the concrete application of much of their abstract work in arithmetic and drawing; the acquiring of deftness and skill of the hands and the corresponding growth and quickening of the brain cells controlling them; the training in neatness and accuracy; the discipline of will power in the task of striving with the difficulties of the exercises; the training of the eye to appreciate form; the joy and strength that comes of *doing*; these and many other attributes will be found to belong especially to this form of manual training. To the rural teacher struggling with a large mixed school and to the town teacher in a fully graded school, it will be found equally helpful. Children and teachers turn with relief to something that is not so much a task set the pupils, as a something they *want to do*. With the motive coming from *within* the pupil, the teacher's task is incomparably easier.

The drawing materials and other instruments used are the same as in the earlier models, but for this course there are two new appliances that are indispensable,—the cardboard knife and a cutting board or pad to protect the desk tops. For the thicker cardboard used in the models, scissors will

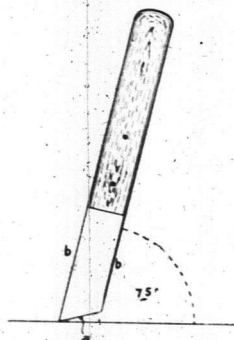


Fig. 1. Shewing knife and cutting angle.

be found of little use, and a knife of some sort is necessary. In the hands of a skilful adult the ordinary pocket knife may answer, but for children a broader pointed, and therefore safer, shape must be used. Many forms have been suggested and tried, but the writer prefers the shape shown in Fig. 1. The cutting edge is at *a* and the edges *bb*, are quite thick and blunt, thus allowing the knife to

be held close down, precisely as a pen is held in writing. Such a knife will be found to serve for any thickness of cardboard or, if kept in order, will cut the thinnest paper.

The cutting board is a piece of common "straw-board," usually of a straw or buff color, the sort that is used for making packing boxes. A piece about twelve or fourteen inches is large enough for any of the exercises and will last for a very long time.

The cardboard used in most of the models is of the thickness known as "six-ply," and may be white, grey, or fancy, at pleasure. A fairly good quality is necessary, as the common pulpy grades of cardboard do not bend well, but give a poor, ragged angle.

Some gummed bookbinders' cloth for binding the edges and angles of the models will be needed. If it cannot be obtained ready gummed, it can be pasted by the pupils as required. The writer has tried both ways of using it, and considers the gummed cloth superior, as the children keep their work cleaner than when using paste.

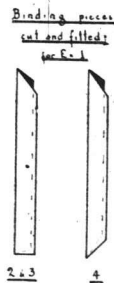
Sometimes gummed paper is used, and proves quite satisfactory for binding edges and angles, but is not strong enough for the backs of folios and hinges of boxes, etc., in some of the later models.

A bottle of liquid glue and one or two small pieces of sponge will complete the outfit, if the rulers, set squares, etc., used in the elementary work are still available. If not, these must be procured, as the drawing is of quite as much importance as ever.

For the first exercise, a simple four-inch square is suggested, as it will involve in very simple form the two new operations of cutting with the knife and binding the edges. The drawing should be of the finished exercise, which may be called a table mat.

Care must be taken that the lines showing the binding on the edges are exactly parallel, and that the margin is the same on each edge of the square. Any error in these details will cause the "mitre," that is the joint in the binding which bisects the angle, to look very bad on the drawing.

For the practical work, proceed as before by first drawing the square very carefully on the cardboard. Then lay the piece of cardboard on the cutting board and place the ruler in position along one of the lines, holding it firmly with the left hand, with the knife held like a pen, not gripped in the fist, make a cut

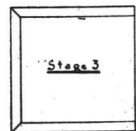
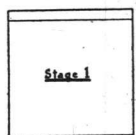


steadily along the edge of the ruler. Remember that two or three light cuts are just as effective and much easier than one heavy cut, which will perhaps sever the card at one stroke. Be careful, though, not to move the ruler between the strokes of the knife, but to hold it firmly and evenly until the piece is cleanly and completely severed. If your rulers have one edge bevelled off, do not use that for guiding the knife—the outer edge is better and safer.

The first attempts at using the knife may not be quite successful, but the muscular sense will soon be developed and the pupil will know exactly how much force to employ.

The square being cut out neatly and accurately, the operation of binding may next be tried. Two methods are available—one to supply the pupils with strips cut to the proper size, viz., half an inch wide; the other, to allow each pupil to cut for himself a strip off a wider piece. For a small number of pupils, the latter is the better way; but for large classes the half inch strips are to be preferred. The pupils should be asked to calculate the length required, a trifle over the exact length being allowed for waste. The next operation is to fold the strip carefully down the centre, and this will be found to call for some care and patience, and the result should be inspected by the teacher before the crease 1 piece is cut into lengths.

Fig 2.
Binding a Mat.



The diagram should make the order of the binding operations fairly clear. The first piece runs right through from side to side. In sticking it on, the finger and thumb of both hands should be employed, and the card pressed well into the angle of the building. The second piece will require to be "mitred" as shewn. In this case, the card being square, the mitre can be marked with a 45° set square, or the mitre may be found by holding the second piece in position and drawing a line from the inside edge to the corner of the card. The third piece is fitted in a similar manner, as both ends are mitred. Great care is necessary, or the model may be spoiled by this last piece of binding not being of exact length.

Any marks from sticky fingers should be removed by lightly wiping with a wet sponge, and the model will be completed.

ENGLISH LITERATURE.

N. B. Reader, Third Book, "The Little Land," By R. L. Stevenson.

This poem is contained in "The Child Alone" part of "A Child's Garden of Verses," published in 1885.

There are sure to be some children in every class who will brand it as "silly," and "silly" it will remain to them, whatever the teacher may say. But there will also be some who are near enough akin to the writer in mind to enter into the delights of "making believe" and "let's pretend," and these will care to hear who the child was whose games and fancies are recalled in these lines and others in the volume.

Robert Louis Stevenson was born in Edinburgh in 1850. From his babyhood he was a very delicate child, and had to spend a great deal of time in bed, cared for with constant devotion by his mother, and his nurse, Alison Cunningham. To his nurse he dedicated his first volume of poems in words which tell of this side of his child life:

"For the long nights you lay awake
And watched for my unworthy sake:
For your most comfortable hand
That led me through the uneven land;
For all the story books you read,
For all the pains you comforted;
For all you pitied, all you bore,
In sad and happy days of yore;—

* * * * *
From the sick child, now well and old,
Take, nurse, the little book you hold!

He had no brothers or sisters, and like many lone'y children he invented games and pleasures for himself. One of his favorite fancies seems to have been to imagine himself small enough to play in the "little land." In "My Kingdom" he says:

"Down by a shining water well
I found a very little dell,
No higher than my head.

* * * * *

I called the little pool a sea;
The little hills were big to me;
For I am very small.

I made a boat, I made a town,
I searched the caverns up and down,
And named them one and all.
And all about was mine, I said,
The little sparrows overhead,
The little minnows, too.

This was the world and I was king:
For me the bees came by to sing,
For me the swallows flew."

And in "The Flowers" he writes of

"Tiny woods, below whose boughs
Shady fairies weave a house;
Tiny tree tops, rose or thyme,
Where the braver fairies climb!
Fair are grown up people's trees,
But the fairest woods are these;
Where if I were not so tall,
I should live for good and all."

His sweet temper and happy fancies carried him through the hard days of pain and weariness, and there were well days, too, when he could play in the out-door world that he always loved.

With two little cousins, a boy and a girl, he had many a game in his grandfather's garden, and here, also, "making believe" was a favorite amusement. He pretended that a mighty giant called "Bunker" lived in the garden, and they had to be continually fighting and killing him. Once when playing that they were shipwrecked and starved sailors, the children ate so many buttercups that they made themselves very ill.

Stevenson recalls these days in the lines "To Willie and Henrietta."

"You in a garden green,
With me were king and queen,
Were hunter, soldier, tar,
And all the thousand things that children are."

In one of his essays he says that if a man has never been on a search for buried treasure, he can never have been a child.

"There never was a child but has hunted gold, and been a pirate, and a military commander, and a bandit of the mountains."

He was not very fond of study when a child, did not learn to read very early, and, he tells us, never learned to spell at all; but when he was only six he began to compose stories which he dictated to his mother before he learned to write.

His school days were broken into by illness, and by travels with his father and mother. When he was eighteen he entered Edinburgh University. It was intended that he should be an engineer, like his father, but he preferred to be a writer, and worked very hard at his chosen profession. He was never well for long at a time, and after he grew up he was not able to live in his native country, but travelled about trying to find a climate that would suit him. In 1879 he went to California, and there he was married. He and his wife tried to live in different places in Europe and America, but his health did not improve, and at last he took a yacht and went

cruising about among the islands of the Pacific ocean. The climate of Samoa was favorable, so he bought a place in Apia called Vailima, and built a house and made his home there in 1890; and there, in 1894, he died. He was buried on the top of the mountain behind his house. Stevenson wrote many stories and essays, as well as several volumes of verses. Every one ought to read "Treasure Island" and "Kidnapped," for they are among the very best stories of adventure in the English language.

He has been a great help to other writers, both by encouraging them to study and practise writing; and by writing such beautiful English himself as to set them an example. Wherever our language is read, people have enjoyed his wise thoughts and his stirring tales, but more than that, he is honored and beloved for his noble life. He struggled with pain and weakness nearly all his days, and seldom knew what it was to be strong enough to enjoy his work, yet he was always brave and unselfish and merry. Everywhere that he went, he made friends. He was very good to the people in Samoa, and they loved him, and called him "Tusitala," or "the story teller."

There is no lack of information about Stevenson's life. The "Life," by his cousin, Mr. Balfour, is very full, and may be supplemented by the two large volumes of his letters edited by Mr. Sidney Colvin, and the "Vailima Letters," covering the period 1890-94. The essay, "Child's Play," in "Memories and Portraits," is recommended as showing Stevenson's sympathy with children.

ELEANOR ROBINSON.

Roman Numerals.

Having visited a number of schools where the children had trouble in reading the Roman numerals, I thought I would send my device for teaching them.

They will remember I, II and III very easily. Next teach V, then I before V means one taken from V. V with I after it (VI) means we are to add I to V, V with II means we are to add II, etc. If V is five and we add five more X we have ten, which they can tell at once, as they have five and five. They can see that X is made up of two fives, one upside down, if they are helped a little.

Thinking of IV, what does IX mean? If X is ten, how much are XX? I have used this device for two years and it is very seldom that I have to tell a child more than once. By this method, the only ones you have to tell them are I and V until you teach L.—*Normal Instructor*.

The Examination and the Examinee in Elementary Science.

BY JOHN WADDELL, Ph. D., U. Sc., School of Mining,
Kingston, Ontario.

[The following article from the pen of Dr. Waddell was written for the REVIEW and the N. Y. School Journal. It appeared in the Journal of October 11th. Dr. Waddell will, we are glad to say, contribute other articles to the REVIEW during the course of the year.—EDITOR.]

The average examinee considers examinations as an ordeal which he must pass in order to obtain a certain certificate. He looks upon the examiner as a man whom he must try to convince of his knowledge of the subject, and if he can do this without excessive study so much the better. No doubt the examiner has largely himself to blame if the examinee can pass the examination without a reasonable amount of study. The examination should not be of the kind that can be crammed for, but should require thoughtful application on the part of the student. It must not be of such a character that a candidate having accumulated a number of undigested facts without any knowledge of their relationships may be able to present a good appearance. If definitions are asked for care should be taken to ascertain that the definitions mean something to the examinee as well as to the examiner. The words may be exact, the idea expressed may be perfectly correct, and yet the candidate may have no more conception of what is meant than if he had committed to memory a list of words taken from an unknown language. For instance, the statement of Avogadro's law that equal volumes of different gases under the same conditions of temperature, and pressure contain equal numbers of molecules, may be given correctly, and yet the candidate might be entirely at sea if asked what volume of hydrogen would contain five million million of molecules, provided that under the same conditions of temperature and pressure one litre of nitrogen contains a million million of molecules.

Not that I consider the memorizing of definitions useless. The strengthening of the memory has some value, but I think that storing the mind with gems of literature is preferable to accumulating a stock of definitions. Definitions accurately and exactly learned may doubtless be of use in later life when their meaning is understood, and in this respect the learning of a definition is better than the learning of a series of words in a dictionary or of a page in a table of logarithms. I refer to the learning of definitions without understanding their meaning. The learning of a definition, when the value of each clause and word is appreciated, is quite

a different matter, and is, in the highest degree, educative.

The pupil beginning the study of science should realize from the very first the necessity of accuracy and exactness. He should learn that his knowledge, while necessarily limited, should be definite and distinct. A hazy idea of principles and facts is most unsatisfactory. The term *science* denotes *knowledge*, and knowledge should be exact and not of a general and indistinct kind. General knowledge has been wittily described as definite and dense ignorance, and it must be admitted that many examination papers exhibit on the part of the examinees a great deal of general knowledge.

Accuracy of observation is one of the essentials of any scientific training, and any training is to that extent scientific in which accuracy of observation is insisted upon. If leaves are being examined their shape should be accurately observed, the character of their margin, the texture, the surface, and other peculiarities, so that the pupil will realize that he *knows* something about the leaves he has studied. If flowers are examined their peculiarities should be noted, and whatever object is looked at the observation should be accurate so far as it goes. An examination paper can test such accuracy of observation. Taking an illustration from elementary chemistry instead of botany such a question as the following may be asked, "What did you see when a piece of sodium was placed upon water?" The answer might involve the fact that sodium takes a globular form and moves about on the surface of the water; it might be that a yellow flame was seen; but that hydrogen was produced by the action of sodium on water, or that caustic soda was produced is not a thing visible in the experiment suggested. It is very important for the pupil to distinguish between what he sees and what he infers, and, still more important, to distinguish between what he sees and what *somebody* else infers. Unfortunately most of our science students learn too much of what somebody else has inferred, usually without a knowledge of the facts from which the inference is drawn, and this inference, which we call a theory, is considered the fundamental fact, and the things observed are supposed to hang upon it rather than it upon them. Such a theory is the atomic theory. Examinees in elementary chemistry when asked to describe a chemical phenomenon, are all too apt to describe it in terms of atoms and molecules and in such wise as to show plainly that their knowledge is of the general kind mentioned above.

It is not uncommon to relegate memory to a very subordinate place in the study of science. We are told that what is required is that the pupil should understand principles, not remember facts. But the concrete is the best introduction to the abstract and principles are best arrived at through facts, are best illustrated by facts, and are most definitely remembered in connection with facts. It is true that it is more important to train a child to investigate for himself than to give him the result of others' investigation, but the time is too short for him to investigate all he should know. It is in most sciences as it is in geography. The most complete and vivid knowledge of geography is to be got by travel, provided the traveller knows how to observe. But most people have to be content with a knowledge of other countries got at second hand. So in science; in many instances we must rest content with getting our facts second hand; and to get a clear view of the subject and to obtain a firm grasp of the principles, facts must be fixed in the mind. Hence, in an examination paper some questions involving an exercise of memory are not out of place. The examiner should be very careful in setting questions of this kind. The questions asked should not be out of the way ones. They should not in any sense be catch questions, they should be of the kind that any candidate in that grade of examination should know. For instance, in chemistry any pupil ought to learn how hydrogen is prepared, or carbon dioxide, or hydrochloric acid, and the properties of these substances; and a question on matters similar to these is well suited to an elementary paper.

The case of carbon dioxide illustrates what I said above about taking some facts in science second hand. It would not be easy for the pupil to perform an experiment to show that for a given amount of carbon, carbon dioxide contains twice as much oxygen as carbon monoxide; but he should know the fact. Unfortunately when he does learn the fact he does not realize that the fact has primarily been learned by experiment; but he is liable to talk about atoms and molecules in such a way as to indicate that he considers carbon monoxide and dioxide as specially created by a kind Providence to illustrate the law of multiple proportions. Examinations have a very important function in stimulating the examinee to fix in his mind a number of facts. The student goes over and over his work with the view of making sure that he can tell a straightforward tale to the examiner, and in doing so finds that

the facts gain a definiteness in his own mind which they formerly did not possess.

An examination should not consist entirely of questions of fact. It should be such as to test the examinee's knowledge of underlying principles, and the relation that facts bear to each other. It would be well if some facts that the examinee is not likely to have met could be given and an explanation of them required, care being, of course, taken that the explanation depends upon principles that should be known.

Any little turn of a question that will put the matter in a different light from the ordinary, is useful, and the examinee should try to get such a grasp of the fundamental ideas that he will not be caught unawares. There should not be too many questions of this character, for the examinee should not meet too much that is strange, but on the other hand the examinee should not have acquired so superficial knowledge of the subject as to be nonplussed by a change in form of question. There are not a few examinees in chemistry who could tell how carbon dioxide and chlorine are made but would think they were asked something out of the way if requested to give the action of hydrochloric acid on marble and on manganese dioxide.

The science student should endeavor to cultivate accuracy of observation, exactness in the knowledge of facts, a clear insight into the relationship between kindred facts, and an appreciation of the principles involved; the examination should be of such a kind as to determine whether the candidate has made this endeavor and how far he has been successful, and should stimulate the examinee to strive in the best manner for the attainment of a thorough understanding of the work gone over, and for such a mental training as will be of permanent value in future life.

Three Good Rules.

1. Do not spend most of your time upon the best scholars. They do not need it.
2. Do not spend most of your time upon the dull ones. You cannot afford it, and it is not right.
3. Give *some* special attention to the dull ones, and *some* to the bright ones, but devote most of your time to the average scholars. The reason of this is because they outnumber the others, and you are working for the greatest good of the greatest number.

TEACHERS' CONVENTIONS.

The officers elected at the Victoria County, N. B., Teachers' Institute, held on the 25th and 26th September, were: Wm. M. Veazey, President; J. Fraser McCain, Vice-president; Bessie M. Fraser, Secretary-treasurer; Janet M. Curry, J. C. Carruthers, additional members of Executive Committee. The institute will meet next year at Grand Falls.

NORTHUMBERLAND COUNTY INSTITUTE.

The teachers of Northumberland County had their twenty-fifth annual meeting at Harkins Academy, Newcastle, on October 2nd and 3rd, about seventy teachers being present. Ernest E. A. Mackenzie, principal of the academy, occupied the chair. Chief Supt. Dr. Inch was present, and his addresses and contributions to the discussions were of great interest to the institute. Miss Mary C. Edgar gave an interesting reading lesson to a class of pupils in grade four, and Dr. Cox a practical and suggestive address on English Composition.

At the public meeting in the evening, addresses were given by Dr. Inch, Rev. Father Dixon, Dr. Cox, Rev. Mr. Palmer, and others. Dr. Inch dealt very largely with the question of centralization of schools and also with manual training. At the Friday morning session, Miss Lucas read a valuable paper on manual training.

On Friday afternoon the teachers enjoyed a trip down river in a steamer placed at their disposal by the kindness of Lieut. Governor Snowball. Dr. Cox spoke of the evidences of glacial action shown along the valley of the river. During the trip Miss Mowatt read a paper on Home Preparation of Lessons. The following officers were elected for the ensuing year: President, R. W. Alward; Vice-president, Miss Beatrice Ellis; Secretary, Ernest McKenzie. Additional Members of Executive, Dr. Cox and James McIntosh.

GLOUCESTER COUNTY INSTITUTE.

The Gloucester County Teachers' Institute met at Tracadie on Thursday and Friday, October 9th and 10th. About thirty teachers were present. The president, Mr. A. J. Witzell, was in the chair, and a cordial address of welcome was tendered the visitors by Mr. M. J. X. Doucet. A nature study lesson was given by Dr. G. U. Hay, and a carefully prepared paper on French grammar read by Mr. J. E. DeGrace. Excellent papers on Discipline were read by Mr. C. J. Mersereau, of the Bathurst Village

Superior School, and Mr. C. F. Brison, a veteran teacher of Gloucester County. At a public meeting held on Thursday evening, addresses were delivered by the chairman, Mr. A. J. Witzell, Dr. G. U. Hay, Inspector Doucet, Mr. C. J. Mersereau, Mr. P. P. Murray and Principal E. L. O'Brien. The addresses were in French and English, as were the discussions before the institute, according to the speaker's familiarity with either language. Inspector Doucet speaks well and fluently in French and English, and President Witzell's knowledge of both languages gave him a distinct advantage in presiding over the institute.

The next meeting will be held at Grand Anse. The officers for the ensuing year are: President, Mr. J. E. DeGrace; Vice-President, Miss Loretta Mullins; Secretary, I. A. Salter; additional members of the executive committee, Bernadette Cormier, Michael McCarthv.

KENT COUNTY INSTITUTE.

The Kent County Teachers' Institute met at Rexton, on Thursday and Friday, October 9th and 10th, the president, Geo. A. Coates, in the chair. Papers were read on the following subjects: Teaching, a Profession, by E. A. Pearson; Arithmetic, by Geo. A. Coates; Teaching of Fractions by Miss May Ryan; Centralization of Schools, by A. B. Boyer; Patriotism in our Schools, by Miss Ness Ferguson; Geometry, by C. H. Cowperthwaite. In addition to these papers, two lessons were given—one in Geography to Grade III by Miss M. McNerny, and the other on Primary Reading, by Miss M. Farrer. The public meeting on Thursday evening was addressed by Rev. Mr. Meek, Rev. Mr. Baker and Professor MacCready, of the Manual School, Fredericton. On Friday evening the visiting teachers were given a reception at the handsome residence of Mr. G. N. Clark.

The officers for the ensuing year are: President, Geo. A. Coates; Vice-president, Miss Ness Ferguson; Secretary-treasurer, R. G. Girvan. Additional members of the Executive, Miss Mary Chrystal and C. H. Cowperthwaite.

The fiction in the November *Canadian Magazine* is exceptionally strong. There are good short stories, and among the illustrated articles, Julia W. Henshaw describes the beauties in and about Field, a little village in the Rockies. For those interested in "home study," there is an article on Shakespeare's use of Birds and another on Astronomy, both of which are quite readable. Norman Patterson reviews the situation of the Alaskan Boundary Question, and F. Blake Crofton, the Halifax librarian and litterateur, deals with some "Imperial Bugbears."

Prof. Goldwin Smith's Advice to Teachers.

I need not magnify the importance of your profession to the commonwealth. A monarchy may do without popular education. The shepherd is content if the sheep will go or his dog can drive them the way he wishes. To a democracy popular education is a vital necessity. Lowe said rather cynically, we must educate our masters. It is better to say we must educate our political partners. This reconciles me to the assumption by the state of a duty which nature seems to have assigned to the family. I have more confidence, I confess, in the family than I have in the state, as governments now are.

A public school may, by its order, its regularity, its discipline, even by its physical cleanliness and neatness, afford a certain moral training. But I am not surprised at what seems to be the growing predilection on moral grounds, for private schools. Rising in the world, which our system practically inculcates, is a good principle in its way, both for the pupil and the commonwealth, the progress of which will be forwarded by his activity. But we cannot all climb over each others heads.

While you are teaching others do not forget your own culture. After hot summer days in the school-room, you will be more inclined for fresh air than for books. But there are winter evenings and Sundays; there is the close of life. Besides the public or travelling libraries, have little libraries of your own, with your favorite authors, to be taken down when the fancy strikes you. Editions of the classics are now very cheap. It is far better to be familiar with one great writer, than to know a little of twenty less great.

For serious literature, in forming such a little library, there are Bacon's Essays, marvellous condensations of wisdom in language the most majestic. There are Lamb's Essays of Elia, ever charming. There are Macaulay's Essays, unrivalled for brilliancy of style, though a little too cock-sure. Melbourne said he wished he were as cock-sure of anything as Tom Macaulay was of everything.

In English history I cannot help calling attention to Knight's Popular History, though being in eight volumes with wood cuts it is rather an expensive book. It gives a fair and lively narrative of events, with a full account of the manners, literature, and general life of the people, all in a genial and liberal spirit without taint of party. In biography, Boswell's Johnson is supreme.

In poetry, Chaucer soars singing joyously as a skylark in the literary dawn; but perhaps from the archaism of his language he is to most people rather a subject of study than a source of pleasure pure and simple. Never be tired of reading Shakespeare. The more you read him the more you will find in him. The first six books of "Paradise Lost" are about the most sublime of human compositions. If you want perfect rest turn to Cowper's "Task." All Scotchmen worship Burns, and we will join them if they will let us take the poetry without the man. Then comes the stirring age of the Revolution, and with it a galaxy of poets of the deeper kind, Byron, Wordsworth, Shelley, Coleridge, Keats. At last we have Tennyson, supreme in art and the mirror of our own age, with its science, its speculations, and its doubts.

Of the recent works of fiction I do not know much nor care to know much more. For political and theological novels I have no taste; let us have our politics and theology straight.

Miss Austen, I fear, is out of date for you though not for me who can remember that state of society. It is a pity, for she is a little female Shakespeare with the very rare gift of endowing her characters with life. Nobody has ever written such tales as Scott, and in reading anything of his, you enjoy intercourse with a truly noble gentleman. Thackeray is not really cynical, while he teaches you deep lessons in human nature. He not only makes us laugh, but does us good. There can be no better religious exercise than reading his "Christmas Carol." George Eliot, of course, is admirable, though rather philosophic and austere.

But choose freely for yourselves. Make your little library of your own favorites; only make your own little library.

The other day a Londoner said to a countryman: "I bet you anything you like you cannot spell three simple words that I shall give you within forty seconds."

"I'll take that on. Now, then, what are they?" said the countryman.

"Well, here goes," said the Londoner, as he pulled out his watch: "London."

"L-o-n-d-o-n."

"Watching."

"W-a-t-c-h-i-n-g."

"Wrong," said the Londoner.

"What?" exclaimed the countryman in surprised tones; "I've spelled the words you gave me correctly. I'm certain I'm not—"

"Time's up," the Londoner said triumphantly. "Why didn't you spell the third word—w-r-o-n-g?"

—*London Spare Moments.*

CURRENT EVENTS.

Edison predicts that in thirty years electric motors will have replaced steam locomotives.

Church bells are now being made of toughened glass. The tone is said to be wonderfully soft and sweet.

A New York inventor has succeeded in making a paper that will stretch to a certain extent without tearing.

A new liquid lens, invented in England, is said to be giving wonderful results in photography. By using a certain oil as the refracting medium, instantaneous photographs may be taken by gas light.

Recent explorations in the ruins of Nineveh show that ancient art had reached a higher development than has hitherto been supposed. Tiles are said to have been found surpassing in fineness of glaze and lustrous beauty anything that modern art has yet attained.

The volcano of Santa Maria, in Guatemala, is in eruption; and there has been renewed activity of the volcanoes in St. Vincent and Martinique. Four or five other volcanoes in Guatemala and Salvador were in eruption during the last week of October. Much of the country is covered with ashes, but no serious damage is yet reported.

The French government is about to lay an underground telegraph cable across the North African desert, from Tunis to Lake Tchad.

A group of uncharted islands have been discovered west of the Aleutian Islands. They are far from the usual steamship routes, and are believed to be valuable for their herds of fur seals.

A railway is being pushed forward as rapidly as possible from Dakar, the capital of French Senegal, to Timbuctoo. Some 500 miles of the line is already completed. A new graving dock to be built at Dakar will be capable of taking in the largest warship afloat.

A number of former Boer commandants and British officers in South Africa have offered their services, and those of a thousand men, half of them to be British and half Boers, for service in Somaliland.

Signor Marconi has arrived at Sydney, Cape Breton, on the Italian cruiser "Carlo Alberto," which was sent to convey him by the Italian government as a mark of special honor to the great inventor.

The new system of sending telegraphic messages by means of a key board, like that of a typewriter, has already been mentioned in these columns. It is known as the Murray system. Its inventor, Donald Murray, is an Australian. The transmitter works very rapidly, using perforated strips that come from the type machine as quickly as three fast typists can prepare them. Recent tests in England have proved very satisfactory; and it is probable that the system will soon come into general use, greatly reducing the cost of transmission.

The Danish landsting, or senate, has, by a tie vote of 32 to 32, refused to consent to the cession of the Danish West Indies to the United States.

Valuable discoveries of molybdenite, gold and coal are reported from Ontario. The molybdenite is said to be worth about \$400 a ton.

Turkish troops have entered British territory, or disputed territory at Aden; and the British have made a demand for their withdrawal.

The output of the metal products of Ontario for the first half of the current year is more than double that for the first half of 1901, the increase being chiefly in nickel, copper and iron.

Mr. Chamberlain, colonial secretary in the imperial government, will visit South Africa to study the political conditions. It is thought he may extend his trip to other colonies, including Canada.

The wireless telegraph station in Cape Breton is nearly finished, and it is said that messages have already been sent from there to England, and that the company will be ready for general business before many weeks.

The Emperor of Germany and the King of Portugal are about to visit England, as guests of King Edward. There is reason to suppose that the meeting of the monarchs will be made the occasion of important international arrangements concerning the British, Portuguese and German territories in Africa.

Rumors of the discovery of Alaskan boundary marks have been in circulation from time to time throughout the summer, as different travellers gave them currency. These marks, which were supposed to have been set up by the Russian government, and were said to support the United States' contention in the boundary dispute, have proved to be the remains of stone huts built by the Indians.

The last section of the Pacific cable has been laid, and there is now direct communication between Canada and Australia. The section from Vancouver Island to Fanning Island, 3455 nautical miles, is the longest cable in the world without a break. It was completed some weeks ago, and has been tested with satisfactory results. The section just finished is that from Fanning Island to Suva, in the Fiji group. The remaining sections, from Fiji to Norfolk Island, and from Norfolk Island to Brisbane, Australia, with the branch line from Norfolk Island to New Zealand, were laid earlier in the year. Great Britain, Canada, New Zealand, Australia, India and South Africa have now unbroken telegraphic communication without passing over foreign soil. The suggestion of a Pacific telegraph cable was first made to the Canadian government by Sir Sanford Fleming, of Ottawa, in 1879; and it is very largely due to his continued efforts that the great work is at last accomplished.

Native troops have been sent from India to Somaliland, where the chief known as the Mad Mullah, is again leading his hosts against the British. The part of Somaliland under British protection lies along the south coast of the Gulf of Aden. The country is rough and unexplored. The trade is chiefly in ivory, skins, ostrich feathers and gums.

Great Britain, France and Germany have agreed with Japan to submit to the Hague arbitration court certain questions relating to the perpetual leases to foreigners in Japan.

In the question at issue between the United States and Mexico, concerning the liability of the latter country for the payment of certain funds, the Hague tribunal has decided in favor of the United States.

The British government has appointed W. F. King, chief astronomer of the Dominion, a commissioner to mark out the forty-ninth parallel from the Rocky Mountains to the Pacific coast. He will work in conjunction with a commissioner appointed by the United States government.

The recent strike of miners in the Pennsylvania coal fields has very forcibly called attention to more than one marked difference between our laws and those of the United States. Here, as a general thing, in granting public lands to private holders, minerals are reserved by the Crown; and mines and minerals are therefore under government control. Men cannot hold a lease of mining land and let it lie unworked without the government's consent. There, neither state nor federal government had any lawful right to interfere; and the disputes between owners and workmen are to be settled under a private agreement which was with difficulty brought about by the personal efforts of President Roosevelt. Here, also, if soldiers should be called out to suppress a tumult, any soldier who fired on the people without a direct order from an officer, or any officer who gave such an order without the reading of the Riot Act by a civil magistrate, would, in case of death resulting, be subject to arrest and trial for murder. The civil law is supreme. There, on the contrary, a general in command of troops in the coal region instructed his soldiers when marching through the streets to shoot any one who insulted them, and no one questioned his right to give them such permission.

That a cabinet minister should express his own private opinion on a matter of public policy upon which the government had not come to an agreement is contrary to the principles of responsible government. Sir Wilfrid Laurier's first public action on his return to Canada has been to ask for the resignation of a member of the administration who had thus independently advocated a change in the tariff. He had a perfect right to his opinion upon any matter of policy, but no right as a minister to express it until his policy became the settled policy of the government.

Newfoundland is prospering. The revenue for the quarter ending September 30 exceeds that for

the corresponding quarter of last year, which was the highest revenue ever collected during any three months in the history of the colony.

The Boer delegates who are travelling through Canada to see our methods of agriculture were especially pleased with the creameries of the Atlantic Provinces. They are now in the wheat regions of the Northwest. It is their purpose to give lectures before their own people in the South African colonies when they return.

The 9th of November is the King's birthday; but the official observance in Canada has been deferred to May 25th.

'ROUND TABLE TALKS.

Subscribers who ask questions to be answered in this department must send their names, not necessarily to be published, but as a guarantee of good faith.

GLOUCESTER COUNTY INSTITUTE: QUESTION.—What is the constitution of the confederation of Australia?

The Commonwealth of Australia is a federal dependency of the British Empire, with representative and responsible government, as in the Dominion of Canada. The King is represented by a governor-general appointed by the crown, and the executive council holds office as long as it has the confidence of the people's representatives in parliament. The several states of the Commonwealth, New South Wales, Tasmania, South Australia, Western Australia, Queensland and Victoria, have local governments similar to those of the provinces of Canada. The legislative powers of the federal parliament are limited by the constitution, and all other powers rest with the state parliaments, in which respect the Australian system differs from the Canadian, and more nearly resembles that of the United States of America. In the event, however, of a federal law conflicting with a state law, the federal law prevails. The King may disallow any federal law within one year from the time of its receiving the assent of the governor-general. The upper chamber of the federal parliament is called the senate; the lower, the house of representatives. Each state is represented by six senators, elected by the people of the states for a term of six years. Representation in the lower house is based upon population, and its members are elected for three years. As in Canada, bills concerning taxation and the appropriation of revenue originate only in the lower house; but in Australia the senate may return such a bill, recommending a change in its provisions. In case of the lower house refusing to make the amendment suggested, a dissolution takes place, and afterwards a majority vote at a joint session of the two houses decides the fate

of the disputed measure. The federal parliament has power to alter the franchise upon which its members are to be elected; but may not diminish the voting powers of the people, or withdraw the right of women to vote, where such right now exists. The capital of the new Commonwealth is not yet fixed; but it must be within the state of New South Wales, and at least a hundred miles from Sydney. The courts of law are much the same as in Canada, judges being appointed by the governor-general-in-council, and holding office during good behavior.

J. V.

T. H. S.—A stock of goods was insured for \$30,000 for 18 mos. @ 1½%. At the end of 12 mos. the policy is surrendered. If the short rate for six mos. was 65%, what should be the return premium?

In a second solution of this question, given last month, a typographical error of a word changed the meaning. The correct solution is here given:

Insurance for 18 mos. @ 1½% = \$450.00
For which retained premium would be 80% = 360.00

Return premium = \$90.00

SCHOOL AND COLLEGE.

Miss Jessie M. Sherard and Mary H. McBeath, B. A., teachers at Lutes Mountain, Westmorland County, have raised the sum of \$35, by means of a pie social. The money will be expended in purchasing a library.

Miss Iva Baxter, who took the normal course at the MacDonald Manual Training School at Truro last term, has taken a school at Bairdsville, Victoria Co., N. B.

The School Board of North Sydney has engaged Professor Chisholm, of Truro, to teach music in the public schools of that town at a salary of \$400 per year. This is a movement that might be imitated by other towns.

Mr. H. H. Hagerman, of the Fredericton High School, has been appointed science master in the Normal School in place of Mr. John Brittain, who has gone to Chicago to prepare for the position of travelling instructor to the MacDonald rural schools. Mr. Frank Patterson, principal of the school at Fredericton Junction, has been appointed to succeed Mr. Hagerman in the high school. Both gentlemen are progressive and experienced teachers, and their scholarly attainments well qualify them for the positions to which they have been appointed.

Farewell addresses were presented to Mr. J. Brittain on his retirement from the staff of the N. B. Normal School on Friday, October 3rd. The principal, Dr. Wm. Crocket, read the address on behalf of the faculty, and Miss Creed one from the students. Both expressed the sense of the

great interest Mr. Brittain constantly felt in his work, and regret at his departure.

Inspector G. W. Mersereau will spend this month visiting the ungraded schools of Northumberland County.

There is no public holiday on November 8th this year. The government has decided to issue a proclamation fixing May 24th as the day upon which His Majesty's birthday shall be observed.

The death, by consumption, of Miss Maud S. Hinxman occurred at Lansdowne, Digby County, in September. The deceased was twenty-seven years of age, and had taught in several of the schools in different sections of that county. She was an excellent teacher and well liked wherever she taught.

Miss Ethel I. Mersereau, daughter of Inspector Mersereau, of Doaktown, is to spend two months in study at the MacDonald Manual Training School, Fredericton, to complete her course. She has already spent six months at the Truro, N. S., school. Miss Mersereau is a graduate of the N. B. Normal School, but expects to make a specialty of manual training as a teacher.—*Gleaner*.

The school sections of West Brooklyn, Nictaux, East Brooklyn, Nictaux Falls, and Wilmot, Nova Scotia, have voted to enter with Middleton into the consolidated school scheme of Sir Wm. C. MacDonald.

Principal I. M. Longley, of Paradise, N. S., died quite suddenly at his residence on Monday evening, October 6th. He taught his school up to Friday of the previous week, and was taken ill on Sunday morning while endeavoring to perform his duties as superintendent of the Sabbath school. He grew rapidly worse until death brought a quiet and peaceful release on Monday evening. Mr. Longley was an earnest and successful teacher, a graduate in arts, and afterwards A. M. at Acadia College, and during his life was active in promoting every good work in the communities in which he taught.

Wm. H. Longley, A. B. (Acad.), has been appointed to the principalship of the Paradise High School. Mr. Longley is the eldest son of Israel M. Longley, the late principal of the school whose death is referred to above. He is so highly esteemed in the county that the trustees at once appointed him to the position made vacant by the death of his father.

D. W. Hamilton, of Florenceville, a graduate of the University of New Brunswick, has accepted the position of principal of the new central school to be established at Kingston, Kings Co., N. B., and will spend this fall at Harvard, and the early part of next year at Cornell, preparing for the work.

W. O. Raymond, jr., B. A. (U. N. B.), son of Rev. W. O. Raymond, St. John, has won a scholarship of \$200 at the Montreal Theological College. The following gratifying announcement appeared on the records: "The Edu-

ational Council warmly recommends W. O. Raymond, B. A., for a scholarship of \$200 per annum, tenable for two years. His answering was remarkably good."

The REVIEW extends its hearty congratulations to Inspector J. F. Doucet on his recent marriage to Miss Leonide S. Vautour, with best wishes for many years of happiness and prosperity.

RECENT BOOKS.

"G." COMPANY, OR EVERYDAY LIFE OF THE R. C. R. By the late Russell C. Hubly, formerly Principal of the Hampton Superior School. Cloth. Pages III.

This little book, which has had a very large sale, is now going through its third edition with a preface and memoir by the father of the author—Rev. A. M. Hubly, Sussex, N. B. The narrative is vivid and attractive, and its tone loyal and enthusiastic. It should meet with a ready sale among teachers and scholars. Write for particulars to A. M. Hubly, Sussex Corner, N. B.

QUALITATIVE CHEMICAL ANALYSIS. By John B. Garvin, B. Sc. Cloth. Pages 241. D. C. Heath & Co., Boston.

This brief course offers a practical introduction to qualitative chemical analysis, suited to the needs of the general student as well as of those who intend to become professional analysts. In its general features the book is inductive, with such suggestions and safeguards as seem necessary to avoid dissipation of time and of energy.

ESSENTIALS OF ENGLISH COMPOSITION. By Horace S. Tarbell and Martha Tarbell. Cloth. xv+281 pages. Ginn & Co., publishers, Boston.

This is a work designed for grammar schools and the lower classes in high schools. It contains all the theory needed for direction and the materials for abundant practice. The contents of the book have all been tested in the school room, and their fitness both to the learner's capacity and to the purpose for which they are designed has been demonstrated. It contains the chapters on letter writing, description, narration, reproductions and essays, study of Longfellow, style, secretarial writings, synonyms, and punctuation.

GRADED LESSONS IN LETTER WRITING AND BUSINESS FORMS. By Frank B. Stevens, Principal of Grammar School, Brooklyn, N. Y. Ginn & Co., Boston.

This is a series of three books designed for use in the fourth and the following years in elementary schools. Letters, business and social, superscriptions, invoices, receipts, checks, promissory notes, drafts, and other common forms of business papers are taken up. The general method is to consider first an engraved model. This is carefully studied, the reasons for the arrangement of the several parts are given and their purposes pointed out. The pupil makes a copy of the model. Later the parts of the same sort of a letter, bill, etc., are given to the pupil and he is to arrange them properly. Further on the facts of the transaction are given, and the pupil is required to prepare the bill, note or other business paper of the form already

studied from model. The various forms are presented in a number of series of related transactions. Capitalization and punctuation are carefully considered step by step, and the series is an admirable attempt to introduce a systematic and practical study of commercial forms in the school.

INTRODUCTORY CHEMISTRY FOR INTERMEDIATE SCHOOLS. By Lionel M. Jones, B. Sc., A. R. C. Sc. (Lond.) Cloth. Pages 195. Macmillan & Co., London.

This is a very good attempt to combine theory and experiment, so as to promote thought, encourage reasoning and develop scientific methods of work. Every experiment is linked in a continuous chain of inquiry, and from beginning to end the practical work outlined by the book seems to have a definite purpose in view.

PRACTICAL EXERCISES IN HEAT. By E. S. A. Robson, M. Sc. (Vict.) Cloth. Pages 187. Macmillan & Co., London.

The author states that the practical exercises given in this book are the result of many years' experience of the actual work of arranging and organising suitable laboratory work in heat for students of different grades, who for one purpose or another require an experimental knowledge of the subject. The importance of a knowledge of the principles of heat is so fully recognized that nearly all schools of science provide laboratory courses therein.

SHADES AND SHADOWS, AND PERSPECTIVE. By O. E. Randall, Professor of Mechanical Drawing, Brown University, Providence, R. I. Cloth. 64 pages+11 plates. Ginn & Co., Boston.

The aim of this treatise, which on the principles of descriptive geometry, is to present those principles which are fundamental in the solution of both theoretical and practical problems; and by a formulation of these principles, to place upon a mathematical basis the rules and formulas commonly used in practice. The method of presentation, which has been developed and tested during fifteen years of experience in the class room, seeks to introduce and substantiate each principle by reference to the simplest form of magnitude. For this reason no attempt has been made at either elaborate or artistic drawings, since these belong rather to the field of application. This method reduces the labor of the instructor, makes it possible to assign special lay-outs for problems, and gives the student excellent practice in accuracy of measurement.

LABORATORY GUIDE FOR BEGINNERS IN ZOOLOGY. By Clarence M. Weed, D. Sc., and R. W. Crossman, M. Sc. Cloth. Pages 105. D. C. Heath & Co., Boston.

This book aims to give the student an adequate first-hand knowledge of organic evolution. It begins with the lower forms of life, and shows how each succeeding form is an improvement over the one that went before, and gives some idea of the laws governing the growth and development of animal life. The directions to the teacher for cultivating in the laboratory the lower forms of life, and the accompanying illustrations, will be especially helpful to teachers who have not had a thoroughly modern course in zoology.

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

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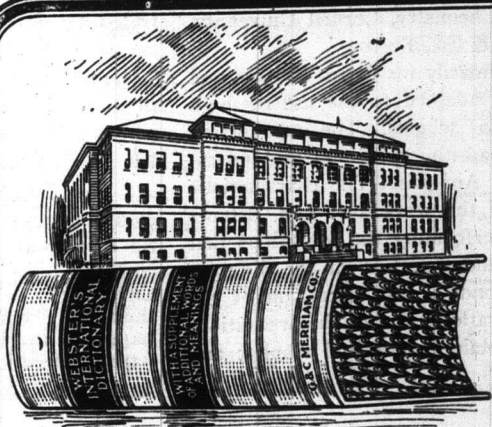
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THE WRITING OF THE SHORT STORY, by Louis W. Smith, is a recent special study in English composition that combines practical directions for writing, and suggestions that will lead to insight and interpretation upon the part of the reader. This monograph is published by D. C. Heath & Co., Boston.

STRANGE LANDS NEAR HOME. Cloth. 144 pages. With pronouncing vocabulary. Illustrated. Ginn & Co., Boston.

This volume consists of short articles on the West Indies, Mexico, and the various countries of South America,—those lands near home with which many pupils are unfamiliar. It is very useful for supplementary reading, being a companion to the books previously noticed in the "Youth's Companion Series" by the same publishers.

PRIMARY SONGS. For Rote Singing. Ginn & Co., publishers, Boston.

The songs included in this little volume are intended to be learned by rote by children in the schools. The best composers are abundantly represented. Careful gradation as to compass, attractive, spontaneous, simple, yet thoroughly standard melody; well marked, symmetrical, regular rhythm, words childlike and in perfect harmony with the music—all these elements, which are demanded in a successful book of rote songs, are found in "Primary Songs."

QUALITATIVE ANALYSIS. A Manual for the use of Students of Chemistry in Schools and Colleges. By L. M. Dennis, Professor of Analytical and Inorganic Chemistry, Cornell University, and Theodore Whittelsey, Instructor in Analytical Chemistry, Cornell University. Cloth. 142 pages. Ginn & Co., Boston.

This manual is designed primarily for use in colleges and universities, but it is also adapted to the use of high schools, academies, and normal schools. The introduction discusses in considerable detail the principles and operations involved in Qualitative Analysis. The characteristic features of the remainder of the work are: first, definite and detailed directions for performing the operations that are used in the separation and detection of the different elements and groups; second, a full discussion of the reasons underlying those operations, and of the precautions that must be observed to obtain the desired results; and

third, occasional references to articles in chemical journals that deal with new methods or with those reactions which are still under discussion.

NOVEMBER MAGAZINES.

In the November number, *The Century* marks its new year and volume by the introduction of a new type and a lighter looking page. The article of greatest current interest is probably the first of the *Century's* articles on the trusts, The So-Called Beef Trust, being treated by George Buchanan Fife. Two serial stories begin in this number: The Yellow Van, by Richard Whiteing, author of that striking story, No. 5 John Street, which is to be the long serial of the year, and has for its subject the contrasts of life in rural England between the village people and the land owners; and A Forsaken Temple, by Anne Douglas Sedgwick....The November *St. Nicholas* must appeal especially to the boys. It contains a profusely illustrated article on A Trip Through the New York Navy Yard, by Joseph Henry Adams. In the Night Crew, Henry Payson Dowst presents a railroad story of thrilling interest. A young lad is called in unexpectedly to perform the duties of a brakeman on a night freight, and goes through all those little adventures in which every boy has pictured himself over and over again....The *Delineator* for November is one of the most notable issues of the year and presents an inviting display of fashions, literary features and domestic matter. With the paper on Dante, one of the best in the whole collection, the stories of Authors' Loves end in serial form. For the children the Pastimes are usually entertaining, and in addition to a natural history sketch there is a delicious nonsense story by Carolyn Wells, illustrated by Strothmann....Littell's *Living Age* has begun the serial publication of Edmondo de Amicis' delightful "Memories of Childhood and Schooldays," which is one of the most naive bits of autobiography to be found anywhere. It is in the author's most characteristic vein, and his style, delicate though it is, loses little by translation....The *Atlantic* contains valuable sociologic and economic essays, notably A Quarter of a Century of Labor Strikes, the first of an interesting and timely series of papers on trades-unions; a labor paper entitled The Australasian Cures for Coal Wars; The End of an Economic Cycle, a thoughtful treatise on current conditions; an instructive paper On the Care of the Eyes; and a study of Modern Artistic Handicraft.

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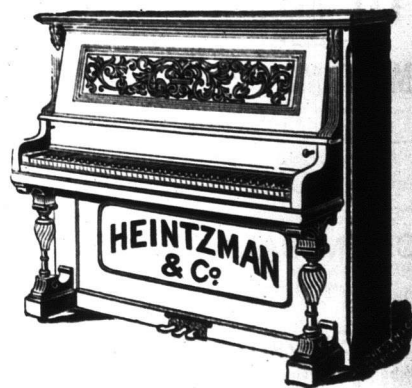
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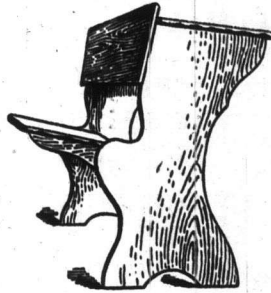
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