

THE EDUCATIONAL REVIEW.

VOL. XVIII. No. 10.

ST. JOHN, N. B., MARCH, 1905.

WHOLE NUMBER, 214.

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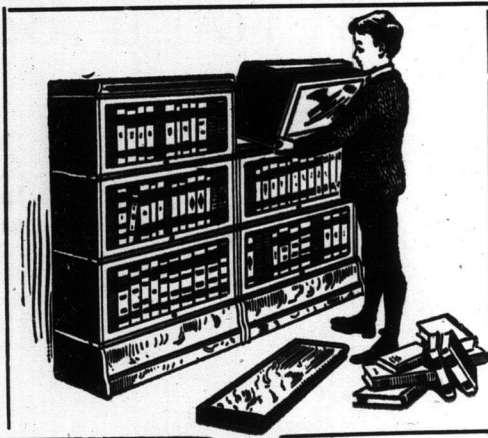
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G. U. HAY,
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WE THANK our readers who so kindly sent in numbers to complete the file of the December REVIEW.

ON ANOTHER page will be found an article on the N. B. Teachers' Association, by Mr. Stuart. This organization has the power to do effective work, and it should receive the cordial support of all teachers in the province. If its executive is active in preparing plans of work and carrying them out the influence of the association will be felt, and it is certain to accomplish good results. Much can be done in a quiet way between meetings to mould public opinion. To secure a marked improvement in teachers' salaries is one great object of the association,

but it should not be the only one. To improve the professional standing of the teacher, to urge a higher standard of qualification for those seeking to enter the service, to discourage the performance of poor work at any price,—these should be equally the objects of the Association's activity.

THE SEVERE snow storms of February and the consequent blockade of roads and railways especially in the eastern sections led to a scarcity of provisions and coal. Many schools where the supply of fuel depended on railways were obliged to close for some days, among them the institutions at Wolfville, whose students, however, turned out and did excellent service in raising the snow blockade.

A WRITER in the press recently complained of the lack of appreciation of art in the Maritime provinces. He said: "In the houses of some of our wealthiest people, houses that are fitted up with all the latest improvements and beautifully furnished, you will often find hung on the walls pictures poorly executed, wrong in perspective, and with frames unsuited to the pictures. Chromos, home manufactured paintings poorly done, seem to be good enough. In drawing and painting even the teachers we do have, as a rule, can only do second class work."

This is no doubt true; and it rests with our teachers to encourage a love of art in the schoolroom by allowing no cheap, trashy pictures to appear on the walls. Only reprints of pictures by the best artists should be placed before the children, and fortunately these may now be obtained at such a low price that every school may at least have a few of them. Hand in hand with this teachers should encourage drawing and endeavor to teach it properly. The REVIEW is leading the way in this good work.

IN THE autonomy measures now before the Dominion parliament it is sought to vest the control of education of the two new provinces in the Dominion rather than the provincial parliament. This is clearly a violation of provincial rights which has been resented by Hon. Mr. Sifton, minister of

the interior, resigning from the government. His constituents and nearly all the western members of parliament take the view, which seems the only proper one to take in the case, that it is the function of the new provincial legislatures to deal with education in their own provinces. This view seems likely to prevail, and it is in unison with the spirit of the Confederation Act.

A VERY complete monograph of the Origin of the Settlements in New Brunswick has just been issued as a separate volume from the published proceedings of the Royal Society of Canada by that tireless worker in the history and natural history of his native province—Professor W. F. Ganong. It is illustrated by maps and many data and arguments, exhibiting the geographical distribution, diversity of nationality and other features that characterize settlements in New Brunswick. It is an important contribution to the history of the province.

A well known educational man in Ontario writes: "I read the REVIEW from month to month with increasing interest. It must be exceedingly helpful to teachers. I often wonder how you succeed in securing each month so many practical articles on so many different topics. You have struck the happy mean between the school journal which is nothing but devices and the journal which is almost entirely theoretical."

OUR NATIVE TREES.—No. I.

The REVIEW has been asked to give a few simple talks or lessons on our native trees, their uses, and how to know them. These lessons will be merely suggestive, the intention being not so much to give information but to stimulate the children's interest about trees; to ask questions and get the experiences of those who are familiar with them, and above all to go to the trees themselves, study their forms, trunks, branches, bark, leaves, fruit, texture of wood and many other things about them that cannot be learned from books.

What is the material in trees called? Name ten articles in the schoolroom that are made of wood; ten in the houses where you live; ten in the barns and outhouses; ten along the roads and railroads where you travel; ten if the travel is along rivers or upon the sea.

Are any other parts of the tree useful beside the wood? When children begin to think and ask ques-

tions at home they will find that there are many more uses than they supposed for the bark, fruit, leaves, withy stems or branches, gum, balsam, sap. The bark of several of our native trees is useful, as the hemlock, basswood; several produce nuts; the leaves are indirectly useful in making leaf-mould to replenish the soil; the withy stems and branches of willows and other small trees are useful for making brooms, baskets, etc.; some produce gums and balsams, such as the spruce and fir; others give out quantities of sap, as the red and white maples.

Great variety can be given to these lessons by having children see and describe wherever possible the process of making materials from wood and bark, such as furniture, paper from pulp, etc. Compositions may be written on "Beech-nutting days," "a Visit to a maple-sugar camp," "an Excursion to a lumber camp," and other similar topics, that would make useful exercises for Arbor day. The woodlot near the home or the grove adjoining the school house will furnish abundant material for talks and lessons and lead to a closer knowledge of trees.

Are trees of any other use to us? Their value for ornament and shade may be dwelt upon. The early settlers of this country looked upon trees as their enemies and cut them down without thinking of their benefits for shade or ornament. They had to make a living from the soil and they considered trees as a hindrance to them. So they were. But there are many of these old homesteads where trees were planted about the houses or some fine trees were left standing, and their shade and beauty are grateful not only to those who live there but to those who travel past them. Compare homes with shade trees about them and the bare houses without any and think which you would choose. It is now considered that grass and other plants in fields and meadows grow all the better from having a few shade trees scattered over the landscape. How much better, then, are human beings, the lower animals, and even the lowly herbs and grass for the companionship of trees!

A great many millions of trees in this country have been destroyed through carelessness in setting fires by settlers and lumbermen. Many of these were fine forest trees, that took many long years to reach their full growth. Many of the trees now growing in America were good sized trees before Columbus set foot upon these shores. Those that are most valuable for timber take a long time to come to maturity, and governments are now taking measures to prevent the wanton or careless destruction of forests.

Can you tell the age of a tree? Look at the end of a spruce log or round cordwood stick and you will see a number of rings. Each represents a year's growth. If you can count them you will find out the age of the tree and you will find many that were more than a century old. Can you tell the age of a twig or branch? Many persons in walking through the woods or along a pathway bordered by trees or shrubbery have the bad habit of breaking off twigs or branches, apparently for no purpose whatever. They do not think. If they did they would see that this will injure the tree and tend to spoil its shape. How much better it would be to treat the trees in our walks as companions and living beings from whom we might learn much if we would only ask them about themselves. Pulling down gently a branch or small stem, and beginning at the growing end look carefully along the bark until you find certain rings; further down another set, and so on. The space between each circle will show a season's growth, and may tell you by its length and vigour whether the season was a good growing one or not.

A branch of a red maple growing near my home tells me its life-history in a very entertaining way. It is fifteen years of age. It grew out of the parent trunk, on the north side, where it was shaded by a dense growth of neighboring trees. On the south side there was an open field and uninterrupted sunshine. "That's the place for me," the youngster-branch seems to have thought when he was three years old, for he turned squarely round and made for the open. The rings show that his growth was feeble during the first few years after turning toward the light; then the lengthened spaces began to show more vigorous growth, and every summer the branch is expanding in the grateful sunshine.

Geography Made Interesting.

A. B. MacKENZIE, SYDNEY MINES.

It was the afternoon of a beautiful day in June. Miss B., the teacher at Malagash Point, expected a visitor, a former teacher of whom she was very fond. She was anxious to have her pupils acquit themselves creditably, but a spirit of unrest seemed to have taken possession of them, and she scarcely knew what to do. She almost dreaded the appearance of her friend. Recess arrived, and she went out for a breath of fresh air. She noticed the children all eagerly watching a vessel being towed out of the bay. It was a three-masted schooner,

and had been built in Tatamagouche. "I shall make this the basis of a talk on geography," thought she.

After recess her visitor arrived. When the school had been called to order, Miss B. asked her pupils how many had seen the vessel go out of the harbor. A score of hands went up. Then followed a series of questions: Where was she built? of what? by whom? her name, etc. Some of the boys knew all about her; they had seen her launched. One was asked to point out Tatamagouche on the map, also the water into which she sailed as she left the bay.

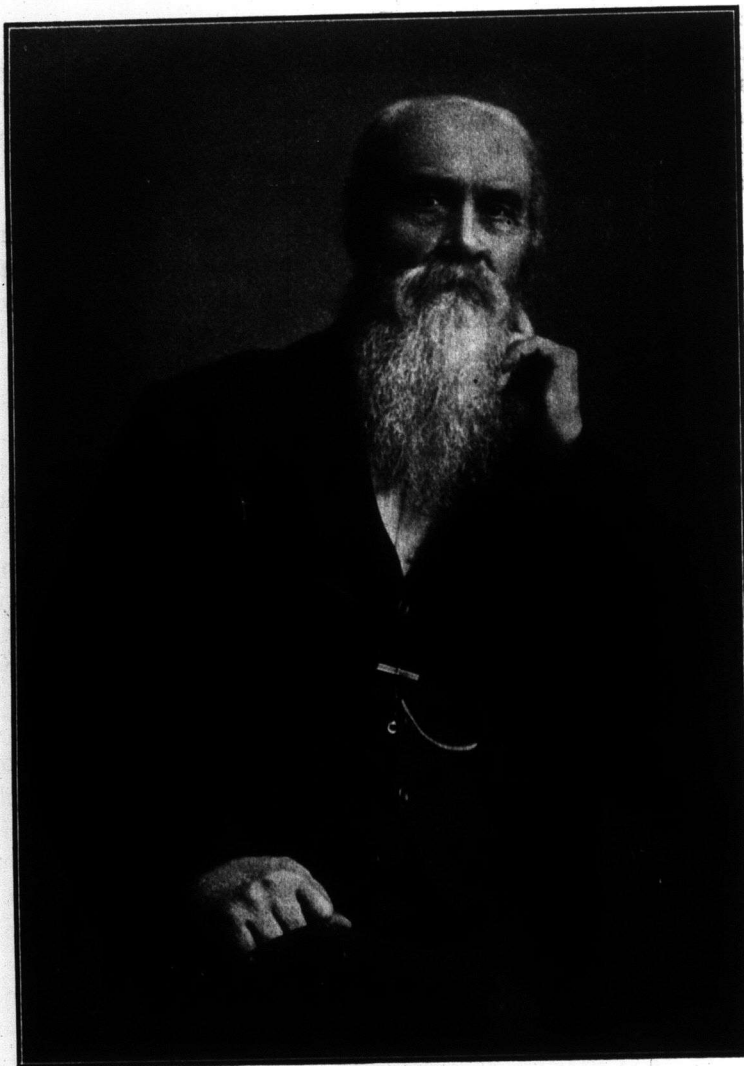
Does any one know which way she sailed when she entered the Northumberland Strait? If she went west, what places might she probably touch? Wallace and Pugwash were mentioned and pointed out. What might she carry from those places? From Wallace she might carry stone; from Pugwash, brick or deal. Then where would she be likely to take this cargo? Several places were mentioned and pointed out, viz., Charlottetown, Summerside, Sydney, and others. Then what might she carry from these places? From Charlottetown she might carry farm produce; from Sydney, coal. Where might she go with her cargo? Various towns were mentioned, and, as before, all were pointed out, and also the waters through which she passed.

To sum up. Here are some of the things the pupils learned incidentally from this lesson: That ship-building was an important industry; they learned a number of the principal sea-ports of the province; they learned about the advantage of a town having a good harbor; about the various exports of their own province, and something about the principal industries of the different sections. From one town the vessel carried coal, then mining was an important industry in that locality; from another port she carried deal, therefore lumbering was carried on in that district; and so on. The children, as well as the visitor, enjoyed the lesson and were deeply interested. The half hour passed all too quickly.

The First Robin.

The sweetest sound our whole year round:
'Tis the first robin of spring!
The song of the full orchard choir
Is not so fine a thing.

—Edmund Clarence Stedman.



THE LATE JAMES LITTLE.

(Courtesy Truro Academy "Critic.")

Death of Two Veteran Teachers.

Two veteran teachers have passed away during the past month, Principal John Montgomery of the Albert school, St. John, N. B., and vice-principal James Little of the Truro, N. S., County Academy. Both were teachers for nearly half a century and both continued working up to within a few weeks of the end. Mr. Montgomery had nearly reached the allotted three score and ten, and Mr. Little had passed that limit by a few months. Both were worthy citizens and capable and faithful teachers, whose lives, spent in effective service, are looked back upon with feelings of reverence and gratitude by hundreds of men and women who have owed much of their success and happiness in life to the work of these earnest teachers.

Mr. Montgomery, a sketch of whose life appeared in the January REVIEW, died on the 17th of Febru-

ary. He was in full possession of his faculties to the last. Surrounded by the wife and children whom he so dearly loved and by friends most of whom were his former pupils, his end was peaceful and full of the assurance of that reward which comes from a life of faithful service.

Mr. James Little was born at Hopewell, Pictou County, in August, 1834. His family moved to Truro two years after. Here he was educated, and after some years spent in other walks of life, he devoted himself to educational work. He taught school at Pubnico and Argyle, Yarmouth county, and in 1864 took charge of the Model school at Truro, leaving that position only for a few months in 1874 to fill the position of inspector of schools for Colchester. When the Model school ceased to exist in 1879 he became vice-principal of the Colchester County Academy, a position which he held

until December last, when failing health compelled him to give up his charge. He left no family. The death of his wife in December, 1903, within a month of the celebration of the anniversary of their golden wedding, was a severe blow to him, and no doubt led to his rapid decline in health. He presented a fine pipe organ to the First Presbyterian church of Truro as a memorial to his wife. Mr. Little was an excellent teacher, of good scholarship, impartial in his duty, and always attentive to the best interests of his school. He was a man of sterling worth, honest and accurate in all his dealings, and estimable in his private life.

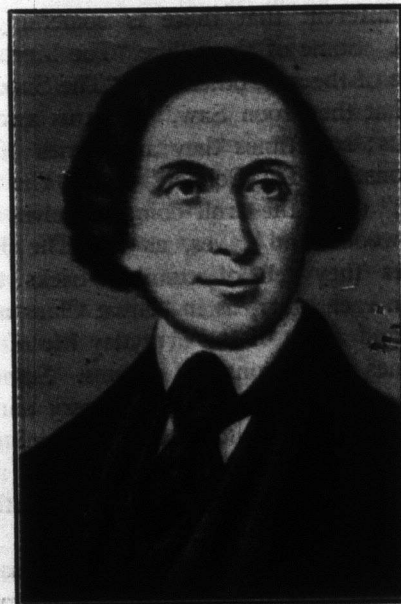
The Heavens in March.

Now that the evenings are growing milder, it is a good time to study the skies. The only bright planets now visible are Venus and Jupiter, which have been for weeks past interesting objects to all observers of the early evening skies. They gradually approached each other until the eighth of this month when Venus passed north of Jupiter at the distance of about five degrees. They are now drawing slowly away from each other. Venus is at her brightest on the 21st. A good field glass will show her as a crescent, like the moon two or three days before first quarter.

Mars rises about 11 p. m. in the middle of the month. He is coming nearer the earth and his ruddy light is gradually becoming brighter.

Although the two bright planets have set by nine o'clock, the south-western skies are still radiant with the groups of constellations, chief among which is Orion, too well known to need any description here. On the left is the brightest fixed star in the heavens, Sirius, or the dog-star. To the right of Orion are the groups the Hyades and the Pleiades. Look at the latter through an ordinary field or opera glass, and notice how many additional stars come into view besides the six twinklers of the group that can be seen by the naked eye. Aldebaran is the bright star in one point of the V-shaped Hyades. It forms a narrow diamond-shaped figure with Sirius at the other end of the longer diameter, and Betelgeuse and Rigel in Orion forming the two ends of the shorter diameter.

Turning to the north-east, the next brightest portion of the heavens, the Dipper in Ursa Major and the Sickle in Leo are the most familiar figures. The bright stars Spica and Arcturus have lately risen, but the constellations to which they belong will be better seen in the following months.



Hans Christian Andersen.

ELEANOR ROBINSON.

On the 2nd of April, 1805, nearly one hundred years ago, in the town of Odense, in Denmark, there was born a child who lived to make his name honored and loved wherever there were children. This was Hans Christian Andersen, the author of the "Fairy Tales," or "Wonder Stories," which are read by children nearly all over the world. When he was over sixty years old he was invited to go back to the town where he was born, which he had left when a lad, and the people there made a great celebration in his honor. The town was beautifully decorated, all the schools had a holiday, and the children sang a welcome. Some of the lines of this song are as follows:

"Thanks for every hour we've had
Round the table he makes glad.
The lamp burns bright while mother sews,
And father reads what every one knows,
Prince and Princess, King and Queen,
Forth they come upon the scene;
Dance the elves, the troll alarms,
Tin soldiers stand, and shoulder arms.
With fairy shoes thy feet were shod,
And so in royal homes they trod;
While still thy name the children know
Wherever Tuk and Ida go.
Take, thou poet of the children's play,
Take the youngsters' thanks to-day."

Children in many countries besides his own have had reason to thank Hans Christian Andersen for

the beautiful stories he has told them. These stories are so different that there is something to suit everyone. Some of them, like "The Mermaid," tell us stories of the sea; others like "The Snow Queen" and "What the Moon Saw," carry us away to distant lands; sometimes they are stories of toys, as "The Constant Tin Soldier," and "The Top and the Ball;" or of the droll doings of elves and goblins in woods and caves, as in "The Elf-Hill;" sometimes they tell of cunning tricks that men played on each other, as in "Great Claus and Little Claus;" and again of the everyday life of children, their games and lessons and dreams. Some are sad and some are merry; some are very simple, and others have serious and beautiful meanings. The best known to English speaking children are probably "The Ugly Duckling" and "The Little Match Girl."

Andersen had a very interesting and happy life. It is true that he was very poor when he was young, and had some hard struggles and heavy disappointments; but he had a hopeful, happy temper and many kind friends; he travelled about a great deal and saw many countries and people; and he was full of pride and pleasure in his work and the fame it brought him.

We will read a little about his life in his own words:

"My life is a lovely story, happy and full of incident. If, when I was a boy, and went forth into the world poor and friendless, a good fairy had met me and said, 'Choose now thy own course through life, and the object for which thou wilt strive, and then, according to the development of thy mind, and as reason requires, I will guide and defend thee to its attainment,' my fate could not even then have been directed more happily, more prudently, or better. The history of my life will say to the world what it says to me,—There is a loving God, who directs all things for the best."

Andersen's father was a poor shoemaker, who had been saddened by poverty and disappointment. He was very clever and fond of books, and read a great deal to his little boy from plays and stories and from the Bible. He died when Hans Christian was still quite young, and the child was left much alone, for his mother went out washing. A kind neighbor lent him books; he read Shakespeare, and wrote some tragedies of his own. One of these was about a king and queen, and because he thought it not right that such great persons should talk like ordinary people, he made a new language for them by taking words from German, French and English and putting them into their Danish speeches. He also wrote and recited short poems. His mother

wanted him to be a tailor, but his wish was to be an actor, and when he was fourteen he determined to go to Copenhagen to seek his fortune.

"I wept and I prayed, and at last my mother consented, after having sent for a so-called wise woman out of the hospital, that she might read my future fortune by coffee-grounds and cards. 'Your son will become a great man,' said the old woman, 'and in honor of him Odense will one day be illuminated.' My mother wept when she heard that, and I obtained permission to travel."

He passed two years in Copenhagen, studying singing and hoping to become an actor. He went on writing, trying to imitate Shakespeare and Sir Walter Scott.

"The fictitious name which I took seems at first sight a great piece of vanity, and yet it was not so, but really an impression of love,—a childish love, such as the child has when it calls its doll by the name it likes best. I loved William Shakespeare and Walter Scott, and, of course, I loved myself also, and so I assumed the name 'William Christian Walter.'"

Some kind friends now sent him to a grammar school at Slagelse, near Copenhagen. Though he was seventeen, he knew, he says, nothing at all, and his place was in the lowest class among the little boys. He studied hard, his teachers were kind, and he made good progress. He afterwards studied in Copenhagen, and passed well in examinations in classics and mathematics. At twenty-three he began to publish some of his writings.

"At Christmas I brought out the first collected edition of my poems, which met with great praise. I liked to listen to the sounding bell of praise, I had such an overflow of youth and happiness. Life lay bright with sunshine before me."

In 1830, Andersen entered upon one of the greatest delights of his life—travelling. Later on, he says,—"Travelling-life is like a refreshing bath to my spirit and body." His first travels were around the coast of Denmark in a steamboat, which was then a very wonderful thing. The next year he went to Germany and saw mountains for the first time. He tells us that from 1829 he supported himself by his writings, but it was very hard work. He wrote poems, operas, travels, and one novel, "The Improvisatore," and it was not until 1835 that the first part of the "Wonder Stories" was published. In this volume Andersen told in his own words old stories which he had heard as a child. He was afraid that learned people would think the style too simple, so he called them "Wonder Stories told for Children," though he intended them to be for both old and young. There was one story in this volume, "Little Ida's Flowers," that he had invented himself, and as that one seemed to be the

favorite with his readers, he went on inventing new tales. After this, one or two new stories came out every Christmas. "Before long no Christmas tree could exist without my stories." It became the fashion for actors to tell them from the stage, and "The Constant Tin Soldier," "The Top and the Ball," and "The Swineherd" were told in the Royal Theatre and well received.

"They met with open doors and open hearts in Denmark; everybody read them, and they were received with the greatest favour. I felt a real anxiety in consequence, a fear of not being able to justify afterwards such an honorable award of praise. A refreshing sunshine streamed into my heart; I felt courage and joy."

The stories were translated into most European languages, and wherever Andersen went, in Germany, France, Italy, Austria, England—he found that they were known and loved. Sometimes he heard them read aloud in a foreign language, and often he was called upon to tell them himself, more than once before kings and queens. Once while travelling in Germany a friend took him into a strange house where there were a number of children. As soon as Andersen's name was mentioned the children gathered round him. He told them one story and then was hurried away.

"Only think," said his friend proudly, "the children are full of Andersen and his stories; he suddenly makes his appearance among them, tells one of them himself and then is gone! vanished! That is of itself like a fairy tale to the children, that will remain vividly in their remembrance."

It was not only children who heard his recitals and readings with pleasure. It was said that the "Wonder Stories" were set in the best light when he read them himself. The first time that he read them in public in Copenhagen, he spoke a few words that show us how seriously he considered them:

"In England, in the royal navy, through all the rigging, small and great ropes, there runs a red thread, signifying that it belongs to the crown; through all men's lives there runs also a thread, invisible indeed, that shows we belong to God.

"To find this thread in small and great, in our own life and in all about us, the poet's art helps us, and it comes in many shapes.

"In the earliest times the poet's art dealt most with what are called Wonder Stories; the Bible itself has inclosed truth and wisdom in what we call parables and allegories. Now we know all of us that the allegory is not to be taken literally by the words, but according to the signification that lies in them, by the invisible thread that runs through them.

"We know that when we hear the echo from the wall, from the rock, or the heights, it is not the wall, the rock, or the heights that speak, but a re-sounding from ourselves; and so we also should see in the parable, in the

allegory, that we find ourselves—find the meaning, the wisdom and happiness we can get out of them.

"So the poet's art places itself by the side of science, and opens our eyes for the beautiful, the true, and the good; and so we will now read here a few Wonder Stories."

Among the many friends that Andersen made in his travels two of the most famous were Jenny Lind the great singer, and Charles Dickens.

He met Dickens on his first visit to England, in 1847, and they were friends at once. When Andersen returned to Copenhagen he wrote a little book of seven short stories and dedicated it to Dickens, who wrote in return:

"Your book made my Christmas hearth very happy. We are all enchanted by it. The little boy, the old man, and the Tin-soldier are especially my favorites. I have repeatedly read that story, and read it with the most unspeakable pleasure.

"Come again to England, soon! But whatever you do, do not stop writing, because we cannot bear to lose a single one of your thoughts."

Ten years later, Andersen visited Dickens at his home in England, where, he says, the happy days fled all too quickly. He loved England, and the kindness he received there was grateful to him. Once in Rome he read the story of "The Ugly Duckling" to some English and American children, "with unpardonable boldness, in English, which I did not know at all well."

On that same visit to Rome, he met Mrs. Browning and the Norwegian poet Björnson, and they both wrote verses in his praise. Björnson says:

"A traveller from that wonder land,
Thou bringest tidings in thy hand
Of winter dreams by northern lights
The pranks of the woods in their fancy flights;
Aye, of a place so far away
That folks and beasts together play,
And the veriest flower
Will talk by the hour
So plain that a child its meaning can say."

The later years of Andersen's life were especially happy. He wrote, travelled, and everywhere received admiration and affection. And when he was getting to be an old man, the wise woman's words came true, and Odense was illuminated in his honor. He was presented with the honorary citizenship of the city, and all the people united to welcome and applaud him. He looked back with gratitude on the days when he had left his native town to begin the struggle of life. He said, "This festival comes to me as a wonder story; but I have indeed learned that life itself is the most beautiful wonder story."

He died in Copenhagen, August 4th, 1875.

Drawing for the Lower Grades. IV.

PRINCIPAL F. G. MATTHEWS, TRURO, N. S.

So far the suggestions in these articles have dealt chiefly with lines and simple forms. It is now time to apply these principles to common objects. The first plate will give an idea of how this may be done. The objects shown are based on the square

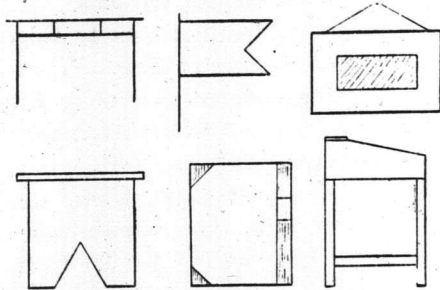


Plate 1

and oblong, and it will be noted that they are all *in the flat*; that is, no attempt is made at perspective. It will be readily understood that in the early stages this is far better than to attempt pictorial representations requiring vanishing lines, etc.

After the difficulties of the straight line have been overcome, curves can be introduced. The simple curve, or portion of a circle, will naturally come first. The arcs should not be too small, but rather large sweeping curves which will require to be made up of several strokes as in the straight lines, though it will be found that the strokes will be longer than in the case of the straight lines, as the wrist is brought more into play in the curves, giving a much greater freedom of movement.

In teaching the elements it will be found advantageous to draw the curves about straight lines placed in various directions. (Plate 2). This will

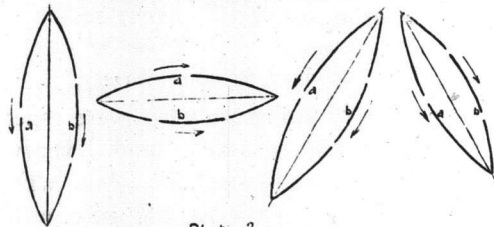


Plate 2

assist in showing the points for starting and finishing, and the amount of *swell* to the curve. The pupils will here probably find out for themselves that the lines curving towards the hand are more difficult to draw than those curving away from the hand, and that the former require more strokes to make up the curve than the latter. (*a* and *b* plate 2).

As soon as the elements have been taught, they may be incorporated in various designs. A few of these may be given by the teacher, and then the chil-

dren may be allowed to make their own. This tends to interest the children, and also exercises their powers of invention. A few simple designs are given on plate 3. Others will readily suggest themselves to the earnest teacher.

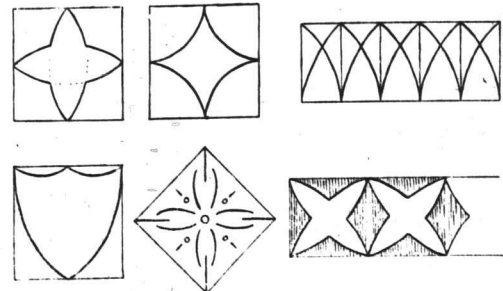


Plate 3

Another device for securing further interest, and thereby better results, adopted by many teachers, is to allow the pupils to color their designs with crayon. After the designs, the children may be required to draw common objects, whose outline consists of the curves described above, or a combination of curves and straight lines. Some suggestions are given on plate 4.



Plate 4

The next stage will consist of double curves. These may be practised first with the halves of the double curve equal, and in all positions, next with unequal portions. (Plate 5). After this will come



Plate 5

curves which are portions of the ellipse and oval. These are much more difficult for the eye in judgment, as the various parts of the line do not curve regularly, but vary in flexure. The actual drawing, however, is really no more difficult than in the arcs of the circle, especially if care be taken that the pen-

cil is held properly, remembering that the pencil should always be at right angles to the line being drawn.

Another point which makes these curves appear difficult is that when the curves turn sharply they must be made up of shorter strokes. It will be found that long curves come easily from the pencil, while the short curves require flexible fingers and wrist.

As before, when the elements have been drawn, common objects or designs may follow. A much

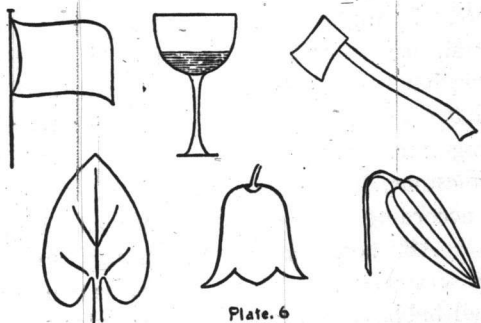


Plate. 6

greater range of objects is now available, though the teacher will find that quite a number of them have to be modified, especially representations of flowers, leaves, buds, etc., which may often be drawn a little more regular in form than they actually occur in nature. Some suggestions are given on plate 6. About this time the teacher will meet with the greatest difficulty, that of getting the children to appreciate proportion. An old plan was to put in numerous guide lines, carefully measured. While this gives assistance, it is too mechanical, and does not overcome the real difficulty, which is the appreciation of space. In every instance, therefore, let the children look at the space first, then at the object required to be put into that space; proportion will follow.

Things Successful Teachers Look Out For.

1. That the work for each day is prepared.
2. That the whole lesson should not be equally emphasized.
3. That the teacher does not try to teach too many things in each recitation.
4. That the class recites, not the teacher.
5. That the recitation is conducted for the class and not for individual pupils.
6. That the end of the recitation brings added knowledge, clear perception, a desire to investigate further, and a definite understanding as to what is to be accomplished in the next recitation.
7. That the following things receive careful and constant attention: Punctuation, capital letters, paragraphing, spelling, penmanship, composition, orderly arrangement and neatness.—Selected.

Mental Arithmetic. III.

F. H. SPINNEY, NORTH SYDNEY, C. B.

RAPID ADDITION.

Few people can add rapidly and accurately. Many pupils working in advanced mathematics are not certain of securing a correct result at one attempt in rapid addition. This deficiency results from a lack of practice. Addition is dropped when pupils leave grade III, except as it is used, in a very irregular way, in more advanced mathematics.

Rapid addition can be made a very interesting exercise for grades V, VI, VII and VIII; as advancement is rapid, and an intense enthusiasm is aroused,—shared alike by pupils and teacher.

It is necessary, in taking up these exercises, to proceed with a regular system. Rapidity and accuracy must be at once secured, to prevent monotony, which would otherwise exist. Then the teacher must proceed very gradually, advancing only when each step is thoroughly mastered.

The following method is one which I have used with most gratifying results: Ask the pupils for all the combinations of two numbers whose sum is 10. Place these on the board:

1	2	3	4	5
9	8	7	6	5
—	—	—	—	—

Then ask for combinations of two numbers whose sum is 11. Place these on the board:

2	3	4	5
9	8	7	6
—	—	—	—

If the class is large, these numbers might be erased and supplied a second, or third time, or until they are readily given by each member of the class.

Now arrange a few columns of figures in which only the above combinations occur:

7	8	9	6	7
4	3	2	5	3
9	9	9	9	9
3	9	5	4	3
8	2	6	7	8
9	9	9	9	9
9	6	4	8	7
2	5	7	3	4
9	8	7	6	5
1	2	3	4	5
—	—	—	—	—

Practise the class on columns like this for several days. Let each pupil stand and add a column aloud

as the pointer moves from bottom to top. The columns can be made as long as the board will allow.

When the above is thoroughly mastered, and added with great rapidity, ask for the combinations whose sum is 12. Deal with these as outlined above. Then follow in a similar manner with combinations of two numbers whose sum is 13, 14, 15, 16, 17 and 18, always keeping in mind the necessity of advancing very slowly, and only when each step is thoroughly mastered, and the columns added with great rapidity.

The following represent a mixture of some of the combinations which will be used:

7	3	7	8	7	7	9	6
5	9	6	6	8	6	8	7
8	8	7	6	5	8	5	2
8	5	5	5	9	8	8	9
4	7	8	9	6	4	7	9
8	8	7	6	5	9	6	4
9	6	9	7	7	8	8	8
3	6	4	7	8	3	6	8
6	5	7	8	9	4	3	2
4	5	3	2	1	6	7	8
—	—	—	—	—	—	—	—

It may require months for a majority of the class to master these combinations, so that they can add with "lightning speed." But speed is sure to come. Progress will, of course, depend upon the size of the class, and the time at the teacher's disposal. Working with my class since September, using from five to ten minutes a day, just previous to other mental arithmetic, the results are most satisfactory. Not only have we secured rapidity and accuracy in addition, but in all the other forms of mathematical work as well.

An occasional "time" contest among those members of the class most proficient in the addition exercises adds much to the interest and enthusiasm. Any teacher can arrange such a contest in accordance with the particular circumstances of the school.

The interesting account in this number of the life and stories of Hans Christian Andersen will lead children to wish to know more of that famous author who wrote for children. A few stories, including "The Ugly Duckling," which he said was like the story of his own life, will be found in the "Classics for Canadian Children" series, two little volumes of which are published by Messrs. A. & W. Mackinlay of Halifax. Number 1 is devoted to fairy tales and fables; number 2 to stories from English history. Price 10 cents each.

Mineralogy.—No. V.

L. A. DEWOLFE, NORTH SYDNEY.

As announced last month, the present article will deal with limestone and gypsum. Although the general term *limestone* is usually applied to a rock of more or less impurity, while the purer mineral form is denoted by *calcite*, it will be convenient here to denote all varieties by the general term. It is important to note, however, that only the mineral calcite has the chemical formula CaCO_3 ; while ordinary limestone is a very impure calcium carbonate. I might add, in passing, that another mineral, *aragonite*, has the same composition as calcite, but belongs to a different system of crystallization. The pearly inside coating of a sea-shell is aragonite.

Limestone, like quartz, consists of several varieties, according to purity, structure and crystallization. All, however, are moderately soft, being easily scratched with glass; all have a white streak; and all bubble if a drop of dilute hydrochloric acid be placed upon them. The bubbling, or effervescence, which is the standard test for limestone, is caused by the escaping carbonic acid gas (CO_2) which the acid liberates from the mineral. Other carbonates will effervesce with hot acid—often only after they are powdered, but no other common one will do so with cold dilute acid.

Some of the more common varieties of limestone are Iceland spar and dog-tooth spar,—both of which are crystallized calcite,—marble, compact limestone, chalk, hydraulic limestone, oolite, coral, shell-limestone, travertine, stalactite and stalagmite.

Pure Iceland spar is colorless and transparent. It has excellent cleavage in three directions, always breaking in rhombohedrons. This property itself is a very good distinguishing feature. Make a dot on paper with your pencil, and look at it through a crystal of Iceland spar. You will probably see two dots. Turn the crystal round, keeping the same face on the paper. How do the two dots behave relative to each other? This property of "double refraction" is very marked in calcite.

Dog-tooth spar, the name of which is significant, occurs in sharp six-sided pyramids. One often finds it in geodes, or lining the sides of rock-fissures.

Marble, a metamorphic limestone, is too well known to need description. Notice its granular structure. Its variation in color has much to do with its commercial value. *Compact limestone* includes all varieties of dense fine-grained calcare-

ous rock, and may be almost any color from white to black. But even the black will burn white. What is the probable coloring material in this case? *Chalk* is white and soft. But remember blackboard "chalk" is not an example, for it is not a carbonate of lime. *Hydraulic limestone* is usually dark colored. It forms a line from which is made a mortar that will harden under water. Ordinary mortar hardens upon drying, but the impurities in hydraulic limestone enable it to harden in water.

Shell limestone, as its name implies, is merely a mass of shell fragments cemented together. Oölite is an aggregate of very small rounded grains, somewhat resembling the spawn of a fish. Greek *oön*, an egg. *Coral* consists of the fossil skeletons of once very small living animals.

Travertine is a very fine-grained compact limestone formed round calcareous springs. The solution flows from the spring, and the water evaporates, leaving the solid carbonate behind.

Stalactites are icicle-like growths from the roofs of caves. Limestone caves are formed by the dissolving action of water containing carbonic acid gas from decayed vegetation. Now if such water should filter through the roof of a cave, the carbon dioxide would escape into the air, the water would evaporate and leave the limestone. The next drop of solution would do the same, until at last an "icicle" of limestone is formed. At the same time, some lime solution drops off this stalactite to the floor of the cave, and there evaporates, leaving a spot of limestone. Another drop and then another falls upon this until a column grows up from the floor. This is a stalagmite. Often stalactites and stalagmites meet, forming a column the whole height of the cave. In fact, it is possible for a series of such columns to entirely fill the cave.

Extensive beds of compact limestone, many of which contain fossil shells, occur in the sub-carboniferous rocks of Nova Scotia and New Brunswick. Nearly everyone is familiar with the process of burning, by which unslaked or quick-lime is made. An interesting lesson in any school would be the tracing (by experiments) of limestone to quick-lime; and this, in turn, to slaked lime, milk of lime, or lime water according to the amount of water used; and then by blowing the breath through lime-water, get a white precipitate which has the same composition as the limestone we started with. Burning drove off carbon dioxide; the breath adds it again. Now what is a test for carbon dioxide? How could you prove its presence in the air? Try

hydrochloric acid on the lime in each of these stages. Try it on new mortar and on old mortar. Can you account for the difference? Remember the old mortar has been exposed to the air for sometime. What did it absorb?

Besides compact limestone our provinces furnish Iceland spar and dog-tooth spar. The former is usually spoken of under the more general name *calcite*. Nor is it difficult to find small stalactites. Outside of caves, I have seen them under bridges whose foundations contained limestone, and round the bases of abandoned lime-kilns. One can get coral and shell-limestone from ballast heaps. Our limestone beds are all marine formations. Calcium is a constituent metal of most granitic rocks. Water containing carbonic acid dissolves it out and carries it to the sea as calcium carbonate. Many small sea animals appropriate it for their shells. When these animals die, their flesh decays; but the shells collect in great masses forming shell-limestone, or, in some cases, coral. These masses often re-dissolve and, by concentration, again solidify, forming beds of crystallized or compact limestone. The latter usually contains sand, clay, and other impurities. By subsequent pressure, these beds are often changed to marble. After all, our world must be old if our great beds of limestone, which are only a fraction of the water-formed rocks, accumulated through the agency of these tiny sea animals. I should advise any who have access to books on geology to read the theories concerning the growth and location of coral islands and reefs. They are extremely interesting, but space does not permit of their treatment here.

GYP SUM.

Gypsum,—calcium sulphate—is usually associated with limestone. Many suppose it has been formed from limestone by the action of sulphuric acid, which might have come from the decay of iron pyrites. At any rate, the general belief is that it has been deposited from water by evaporation.

Our chief purpose here, however, is to study the mineral as it is, whether we can account for its origin or not. One of its most noticeable properties is its softness—being easily scratched with the finger nail. Though it may be almost any color, white and pink are the most common. Its streak is always white. By its structure it may be divided into three groups. (1) *Selenite*—glassy, crystallized gypsum in transparent layers. (2) *Fibrous gypsum* or *satin spar*—two names which describe its structure and lustre. (3) Compact gypsum, which when snowy white is called *alabaster*.

All these varieties contain water, which is easily driven off by heat, leaving a white powder—plaster of Paris. Put a fragment of gypsum on a hot stove for a minute and notice the change to plaster of Paris. Do the colored varieties turn white under this treatment? Heat a piece in a glass tube and see the water collect on the sides of the tube.

One variety of calcium sulphate containing no water has been given the name *anhydrite* to distinguish it from gypsum.

Nova Scotia and New Brunswick export considerable quantities of gypsum, which is used for plaster of Paris and as a fertilizer. Alabaster, owing to its softness and whiteness, is cut into vases, statues, imitation books and other ornaments. Ornaments are made also from plaster of Paris, but they are casts, while alabaster is cut and carved.

Remember the standard test for limestone is its free effervescence with hydrochloric acid. The best distinguishing marks for gypsum are its softness, and its giving off water and crumbling to powder when heated.

While the varieties of quartz named last month should enrich your collections by at least ten specimens, this article should enable you to add at least a dozen more.

"With the Best Wishes."

In looking over our subscription books we see occasionally after a name scored out the phrase—"married and gone!" The announcement, conveyed to us by the good offices of some friendly postmaster or school officer has caused a feeling of regret that the bride (in nearly every case it was a bride) in the hours of her great happiness forgot that she owed us the duty (if nothing more) of asking a discontinuance of the REVIEW.

The following expressive note, brimming with happiness, was received the other day. The REVIEW extends its best wishes to a thoughtful friend.

To the Editor of the Review,—

DEAR SIR:—I have asked you a number of times since I have been a subscriber to the REVIEW to change my post office address, but now I shall be very glad if you will be kind enough to change the name from Miss _____ to Mrs. _____.

Yours truly,

If a teacher can make a school more interesting than the fish pond, the boy will prefer school to fishing during school hours.

Cardboard Construction in Rural Schools.

By H. W. HEWITT,

Under the direction of the M. T. T. Association of N. S.

There is no necessity for impressing upon teachers the value of cardboard cutting as an aid to the training of the senses of sight. Granted that some form of manual training is desirable in the rural schools, the choice will probably be the development of the idea through cardboard cutting. Work with Venetian iron, clay, raffia and wood, are all of importance, but all more or less impracticable. The outfit for cardboard construction is cheap and easily obtained, and the work easily graded and attractive. Having decided upon its introduction the problem arises of spending to the best advantage the available money and of finding time for its operation. In a graded school the training may easily be given to all the pupils in the department. In an ungraded school the primary classes may be dismissed at an early hour and the senior classes be given desk work needing very little supervision, leaving the teacher free to teach the cardboard construction to the intermediate grades.

Friday afternoon is, perhaps, the best time to teach the work. If the intermediate classes only are given the training the expense of a fairly complete outfit will probably be within the reach of the section. If training is to be given in all the grades the children may be required to bring their scissors, and, if necessary, pencils, rulers, etc. This course is open to many objections and it will be easier and more satisfactory for the teacher if the section will not furnish the funds to hold a school concert or other form of entertainment in order to secure the money. Such entertainments are always liberally patronized.

The following outfit is recommended, subject, of course, to variations due to local conditions: For 20 pupils—20 each 45 and 60 deg. set squares cut from heavy cardboard by the teacher; 20 pairs scissors, blades about two inches long from rivet to points; 20 foot rulers; 20 pencils, H. H.; 20 erasers; 2 small bottles liquid glue; 2 conductor's punches (round); several sheets of millboard for teacher's use in cutting cardboard; cardboard, drawing paper, cord and ribbon, as thought best by the teacher. A few other supplies may be thought necessary. All of them can be obtained from firms advertising in the REVIEW, and, in most cases, at the nearest town.

With regard to the course itself. The children are all eager to start the work, and, once favorably started, interest is easily kept up. The mistake must not be made of starting with geometrical fig-

ures, such as squares, oblongs, triangles, etc., and following their manufacture with a drill on their properties. Instead, give each child a piece of paper about 6x6 inches, cut to size. Suppose a square is the object to be made. Measuring from the angles and edges, already cut accurately by the machine, a square of any given size can be cut out. If desired, the properties of the square can be taught from the uncut paper. The rectangle is made by folding the parallel edges together and either tearing or cutting the paper. The right angled triangle is made by folding diagonally and the other figures by more or less instrumental measurement and cutting. A brief quarter of an hour will suffice to cut out and establish the properties of any one figure.

Having taught the properties of the figure, a model, based on the principles just established, should be given. In many cases the object can be drawn neatly on the cardboard and the figure cut out without a previous drawing having been made on the drawing paper. I have found it advisable, though having only a class of 20 at a time, and two hours for each lesson, to drop all unnecessary drawings of development which would have to be duplicated. Ample scope for drawings of the object is given in cardboard with this omission. The reasons for having the geometrical figures made of light paper instead of cardboard may now be explained. Take, for example, the lesson on angles in triangles. From a small sheet of paper triangles of varied shape may be cut. By folding the acute angles into the right angle in those figures cut with the corner of the paper left intact, the principle that every triangle contains the equivalent of two right angles can easily be demonstrated.

The proof in the case of obtuse angled triangles is a little more difficult, the result of the folding being a double rectangle. Experiments made in the same way will give the children an idea of angles not to be gained in a much greater time by theoretical teaching and at the risk in the latter case of laying the foundation on sand.

So much for the geometrical side of the work. It should occupy only a small part of the time, as the greater accuracy and the more complex forms demanded in the cardboard construction needs a comparatively longer time for their manufacture.

With the first appearance of colored cardboard the teacher will find an increased interest manifested in the work. The teacher should, if possible, personally select the colors either from samples or inspection at the store. The children should be given their choice of colors whenever practicable.

Where cord is to be used a dark brown will be found generally serviceable. If possible, cheap "baby ribbon" should be used extensively. Half a dozen good colors should be wound on silk winders and a choice given from amongst the colors suitable for the cardboard being used. Work in *passe-partout*, cardboard cutting with the knife, as used in the construction of trays, boxes, etc., and of solid models, such as cubes and prisms, are more advanced, but not beyond the abilities of the pupils under construction.

N. B. Teachers' Association.

The N. B. T. A., which has now subordinate associations in every city of the province and in every county but Madawaska, Restigouche and Charlotte, will hold its annual convention in Fredericton on Easter Monday, next month.

By article III of the constitution, each subordinate association shall be entitled to one delegate and one additional delegate for every twenty-five members, or major fraction thereof in excess of twenty-five members.

Every teacher in N. B. should be a member of this association. Only in union is there strength. Each should stand by the other, and the result would soon be increased remuneration and better conditions all round. So many of our teachers are going west that those who are left behind are in a position, if they hold together, to greatly better their condition at once. Let all, who have not done so, sign the declaration mentioned below and forward their names, and fees of twenty-five cents, to the secretary-treasurer, H. H. Stuart, Harcourt, Kent Co., N. B., who will have the name registered with the proper subordinate association. Teachers of Charlotte, Restigouche and Madawaska, where there are no subordinate associations, should send in their names at once, and thus strengthen the other teachers in their attempt to make the association a power for good in the land.

Every teacher, not already enrolled, should join before the 31st of this month, in order that the association may make the best possible showing at the Easter convention. All subordinate associations which have not yet done so, should send in per capita tax before Easter.

The N. B. T. A. membership declaration is as follows:

We, the undersigned teachers of New Brunswick, hereby form ourselves into an association, in subordination to the New Brunswick Teachers' Association, for mutual benefit and the furtherance of education in general, and pledge ourselves:

First,—Not to underbid any other teacher in salary.

Second.—Not to accept from any board of school trustees in New Brunswick a salary lower than the schedule adopted by the subordinate association of the county or city in which we are, or may hereafter be, employed; and, whether there be any local schedule or not, a salary lower than that which shall from time to time be fixed for the province by the Provincial Convention or its executive committee, such provincial minimum being now as follows:

	Per year.
For grammar school superior and first class males, other than principals of grammar schools,	\$300
For second class males,	240
For third class males,	170
For female principals of superior schools,	300
For grammar school, superior and first class females, other than principals of grammar and superior schools,	175
For second class females,	165
For third class females,	130

H. H. S.

Miss Maybrook's School.

She was a graduate of one of the best normal schools in New England. She had been elected to an ungraded school in the country. She had taught the school, or tried to teach it, for eight weeks, but she was beginning to be discouraged, and with reason. The schoolroom was a babel of confusion. She sought the superintendent. "I am conquered," she said, "shall I resign?"

Mr. Hall considered, then questioningly: "You have qualified yourself for a teacher? You have chosen this for a profession?" "Yes," she said. "This is the work I intended to follow."

"Let us look over the conditions," said the superintendent. "You have a school of twenty pupils, twelve years of age and under. You have it here at your hand for the practicing of your chosen work. You have four weeks more in this term, take heroic measures; see if you cannot bring the school under control. It is in such a condition now that corporal punishment may be needful, and you may not be equal to that kind of discipline, but it is in your power to bring order out of the chaos. Study out some method. Do not give up. Good night."

The next morning the teacher went to her work. Confusion reigned as usual. John Smith, the largest boy, exceeded the others in mischief.

"You may stay after school, John," Miss Maybrook said. As the line filed out past the teacher, John, in a rear seat, raised a window and disappeared. Miss Maybrook made no effort to recall him, but the next morning, after the opening exercises, she asked him to come forward. Then he found, and the school found, that the teacher had provided herself with a switch, a thing that had hardly, if ever, been known in that room.

A sister sprang up and cried out, "You shan't whip John!" but that teacher had come to her kingdom, and she said calmly and gravely, "Sit down, Sarah, or I must give you a whipping, too." The

tone was recognized, and the child obeyed. Then she proceeded to give John a sound whipping; when that was over and a moment given him for thought she explained, "This is for what you did in school yesterday. Now I shall give you another for getting out of the window," and the second punishment was administered.

It is not well that children, as a rule, should witness punishment. It is cruel to subject innocent, sensitive children to such a spectacle. But there are exceptions to the rule. In this case severe measures were needful, not only for John, but for the nineteen others, most of whom had helped in the general disorder. For them the object lesson was enough; they were changed to docile pupils. The teacher, too, was a changed personality to herself and to the children. She realized that she had the reins of government in her own hands; to her pupils she had suddenly become the embodiment of authority. Now she could teach; before she had been wholly handicapped. The children felt that they were subject to law, for they had seen penalty, and having once seen it, there is no probability that its ugly face need ever again be seen in that schoolroom.

That teacher conquered conditions, and is now a success.—*Mary Dustin, in N. E. Journal of Education.*

Too much stress cannot be put upon spelling in the lower grades. There is the place to learn to spell. Some famous teacher has said if a child is taught carefully to be a good speller until he is twelve years old, he will always be able to spell, but if he is a poor speller at that age, he will in all probability always be one.

To encourage the children we tried this. On a conspicuous place on the blackboard were placed words similar to "Careful Workers," or "Those Who Try." After the spelling papers were corrected, those who missed no words were permitted to write their names below the printed words. A record was kept of the number of careful marks each one received. They were written on monthly report cards. Many who never became better spellers by writing words they had missed, over and over, took pleasure in trying to excel in the number of perfect marks in spelling.—*From Popular Educator.*

Q.—Why is a clock the most modest piece of furniture?

A.—Because it covers its face with its hands, and runs down its own works.

Q.—

A nursemaid goes out to take the air,
With three small children under her care,
In bright sunshiny weather.

Why is she like an arithmetician,
Who, in doing a sum in addition,

Adds seven and three and two together?

A.—

Because, as all but the baby can run,
She puts down two and carries one.

Parents' Day at School.

It is now very generally believed that there must be constant endeavor on the part of teachers to bring the school and the community closer together. The regulation school entertainments of song and recitation serve their purpose in bringing the desired cooperation and sympathy between teachers and parents, but do not give the parents knowledge of the actual work of the schoolroom. In one primary school it was decided that these entertainments be given up and "Parents' Day" instituted instead. An afternoon was assigned for the parents to visit the children at their work. The session was divided into short periods so that all the subjects in the day's programme could be touched upon. In every other respect the regular plan was carried out, care being taken that each child had some part in the recitation as well as in the occupation work. At the close of the session the principal gave a few words of greeting and explanation of the object of "Parents' Day." Then the children presented their occupation work to their parents.

The afternoon, though voted a success from one point of view, was an ordeal to the nervous pupils and was not favored by the teachers as the presence of so many visitors was a distracting influence, making it difficult to carry on the recitations with the usual spirit and interest.

This led to another plan, which was to have an exhibition and reception after school hours. The following invitations were sent out:

The friends of the
RIDGE STREET SCHOOL
are invited to a
RECEPTION AND EXHIBITION
FRIDAY, JUNE SIXTH
Four to five.

A large number of parents responded to these invitations.

The language work in this school follows the cycle of the year covering the main topics;—preparation of the plant and animal world for winter, nature's season of rest, protection from cold, and nature's awakening. The various forms of expression are used for occupation work. Every day the child has the opportunity to express himself through the media of clay, brush, crayon, scissors and pencil.

Specimens of this work are preserved throughout the year.

For "Parents' Day" each child's work for the month was bound together forming a booklet. In this way each parent was given the work of her own child as a souvenir of the day.

Selected work in water color, ink and crayon was mounted on the blackboards and walls. This work must be carefully mounted to show well and is more

effective if arranged according to subjects. For example: One blackboard had a border at the top of tulips and daffodils cut from white paper. Under this were water color and crayon pictures of the same, with a few written papers.

Again, there was a cotton plantation represented on the sand table while near by were the children's drawings of the cotton boll, the bale, and samples of cotton fabrics done with water color and crayon. This subject was taken under the talks on preparation for summer, the sand table representation of the cotton plantation being a valuable aid in both oral and written language.

Nearly every child in the class can be represented in this special work for, while one may excel in brush work, another may excel in penmanship or in composition. This exhibition gave the parents an opportunity to compare the daily work of their own child with that of others.

To make more of a social function of the exhibition, light refreshments were served.—*School Journal.*

The other day while riding on a railway train a traveller was complaining of the cold. It was plain that he was not familiar with farm life or the value of frost or his complainings would never have begun. It is true frost may be too severe at times, but at this season nature does her best plowing with severe frost. With a fairly long period of cold weather the farmer will find his land in such fine condition on the opening of spring as no amount of cultivation would produce. In wet seasons very much of the land becomes sodden and sour, and nothing is so welcome to the well informed farmer as the frost plow to mellow the clods and pulverize the chunks left by rain and sun and assisted by careless ranging of stock in muddy fields. Therefore while the cold weather causes stock to use up the hay and grain surprisingly, there is satisfaction in knowing that nature is doing her share in preparing for another bountiful harvest.—*Adapted from the Farmer's Advocate.*

In making the levy for teachers' wages, the voters at annual meetings should take into consideration these facts: That it costs teachers much money to fit themselves for the work; that they are expected to keep in touch with the march of improvement, hence must attend institutes and association meetings, and buy books; that their work in school is not limited to the six hours required by law, for they usually are at their desks one hour before school begins and one hour during the noon intermission. Moreover, good teachers (and no other kind is contemplated in these remarks) give much time after school hours in preparation for classes, and in helping backward pupils.—*N. E. Journal of Education.*

The other day I met with the sentence: "His whole life was one of thrill and adventure." The writer evidently meant by *thrill* excitement. Why did he not say so?

For Tired People.

In my book of choice records I have the following simple and available recipe, a medicinal bath for the nervously worn and those who cannot sleep nights. It was the prescription of an old physician, wise in his day and generation. It is not claimed as a cure-all, but some degree of relief I believe is in store for those who give it a faithful trial:

Take of sea salt four ounces, spirits of ammonia two ounces, spirits of camphor two ounces, of pure alcohol eight ounces, and sufficient hot water to make a full quart of the liquid. Dissolve the sea salt in the hot water and let stand until cool. Pour into the alcohol the spirits of ammonia and camphor. Add the salt water, shake well and bottle for use. With a soft sponge dipped in this mixture wet over the surface of the whole body. Rub vigorously until the skin glows.

When nervous or "blue" or wakeful, do not omit this bath. The rest and refreshing that follow will amply repay the effort required to prepare it.—*Household.*

"Your majesty," said the cook of the king of the Cannibal islands, "how will you have the latest captive prepared?"

"I like to cook my game in some way appropriate to their national characteristics," replied the king. Of what nation is the captive?"

"He is an Irishman, your majesty. Is it your pleasure that he be done into an Irish stew?"

"Oh, no. You may make soup of him."

"But is that characteristic of the Irish, your majesty?" asked the chef politely.

"Certainly it is. That is the way they cook young men themselves in Ireland."

"I beg your pardon, sire, but I have never heard of it."

"That, my dear sir, is because you have not as much time to read as I have. I, sir, have often met, in my reading about Irishmen, with the expression, a broth of a boy."

"Who was the greatest highwayman on record?" propounded Nordy.

"Robin Hood," ventured Butts.

"No."

"Dick Turpin?"

"No."

"Who, then?"

"Atlas. He held up the earth."—*Sel.*

Many people who ought to know better uselessly interlard their conversation with the frequent use of "of course," when really there is no course or consequence in the matter. This phrase should never be used unless you can substitute for it "consequently" or "in due course."

MEMORY GEMS.

The Father takes heed when the sparrows fall;
He hears when the starving nestlings call.
—*Susan B. Gammons.*

Be kind and gentle to those who are old,
For dearer is kindness and better than gold.
—*Selected.*

Never excuse a wrong action by saying that some one else does the same thing.—*Franklin.*

When you come into the house, do you bring sunshine with you?—*Gail Hamilton.*

If a task is once begun,
Never leave it till it's done;
Be the labor great or small,
Do it well or not at all. —*Selected.*

Whoever you are, be noble;
Whatever you do, do well;
Whenever you speak, speak kindly,
Give joy wherever you dwell. —*Ruskin.*

Do all the good you can and make as little fuss about it as possible.—*Dickens.*

Lost: Yesterday, somewhere between sunrise and sunset, two golden hours, each set with sixty diamond minutes. No reward is offered, for they are lost forever.—*Horace Mann.*

One doer is worth a hundred dreamers.—*Selected.*

Be not simply good, be good for something.—*Thoreau.*

Have more than thou showest,
Speak less than thou knowest. —*Shakespeare.*

There is always a best way of doing everything, even if it be to boil an egg.—*Emerson.*

Our grand business is, not to see what lies dimly at a distance, but to do what lies clearly at hand.—*Carlyle.*

It is ever true that he who does nothing for others does nothing for himself.—*Goethe.*

Has a man gained anything who has received a hundred favors and rendered none?—*Emerson.*

A life for self can have no meaning.—*Tolstoi.*

A laugh is worth a thousand groans in any market.—*Lamb.*

What men want is not talent, it is purpose; in other words, not the power to achieve, but the will to labor.—*Bulwer.*

—*Selected for use in the Warsaw, Wis., Schools.*

A little girl came into a store and asked the price of collars.

"Two for a quarter," said the clerk.

"How much would one cost?"

"Thirteen cents."

She thought for a little while and said: "Then it would make the other twelve cents. So I guess I'll take that."—*Little Chronicle.*

The Review's Question Box.

M., St. John.—In the article on Mineralogy in the February REVIEW, it is stated, page 223, "Silicified wood is not, as many think, wood turned to quartz, but wood replaced by quartz." Will you kindly explain the natural process by which this is effected?

The process of petrification of wood may be briefly explained as follows: A stick—perhaps a whole tree, or perhaps only a small fragment—becomes buried in accumulating soil. In time the soil hardens. If then the stick decays and is washed away by circulating water, a cavity is left exactly the shape and size of the wood. Now, if the cavity should fill with mud and become solidified, an exact copy of the wood would be preserved in rock. This we call a fossil. You readily see that the process is very similar to that of *casting* in a foundry; where the pattern impression is made in sand, and then the melted iron poured in takes the shape of the pattern with all its surface carvings. Silicified wood is fossil, but retains more details of the original structure than the rough fossil indicated above. As the name implies, silica (quartz) is the filling material. But instead of the whole cavity filling at once, a particle of silica is deposited from solution as soon as a particle of wood is removed. By this process the change of material is comparatively slow, consequently silica supplied at different times may vary in color enabling one to see the whole structure of the wood. As the cell-walls are of a different texture from that of the cell spaces, the two would not decay at the same time. Therefore the walls, annual rings, medullary rays and all other fine markings, are brought out by this process of slow silicification. If you have a specimen to look at, I think this will help you study it.

The chemistry of this change is probably somewhat like this: Silica is soluble in alkaline water. When, therefore, such a solution comes in contact with wood, the organic acids from the decaying wood neutralize the alkali and the silica is deposited. Whole forests of silicified wood have been unearthed in some of the Western States. L. A. D.

G. S.—Can you refer me to any company which handle quarterly report cards, grading certificates, and school diplomas? If you carry any such works in stock, kindly send me sample.

A glance at our advertising columns will show the publishing firms that can supply you. Messrs. Mackinlay, of Halifax, or McMillan, of St. John, probably keep quarterly report cards and grading certificates in stock, or will print any desired form for you. In the matter of school diplomas, such as

are advertised in this issue by the Ames and Rollinson Company, we have received specimens. They are very neat and artistic and may be had at a trifling cost. Specimens will be sent by that firm if desired on mentioning the EDUCATIONAL REVIEW.

A. G.—Please answer the following questions: (1) What advantage in respect to the sun's rays has the Northern Hemisphere over the Southern, and why?

(2) Why are there greater extremes of heat and cold in the Southern Hemisphere?

(3) It is said that at the poles the year is divided into two periods, six months day and six months night; also when the sun is vertical at the equator, the days and nights are twelve hours long over all parts of the earth. Explain these contradictory statements.

To answer these questions fully would require more space than can be devoted to the subject; and the object sought would not be gained. The student should master the principles in the first chapter of Calkins' Geography from which the questions are taken. That exercise would give a working knowledge of these and many like problems.

L. R.—I have noticed tide of rivers running into Bay of Fundy, as the Shubenacadie has very little rise and fall during winter months compared with summer. Are the inclined rays of the sun at this season, with respect to our latitude, the cause?

The sun's attraction is but a small factor, compared with that of the moon, in affecting the tides. The inclination of its rays would not be an influence. You should observe more closely to determine whether, taking both neap and spring tides, there is any difference of rise during summer and winter in the rivers you speak of.

P. TEACHER, West Arichat, N. S.—A singular incident happened to a teacher on the 30th of September last in Hawkesbury, N. S. He was attending the Normal Teachers' Institute, and on the date above mentioned went to a ball in the town hall with a new umbrella that had been accidentally torn, but well patched. The next day, to his surprise, he noticed that the umbrella was no more patched, but was in every particular the same as before. The fact is that his umbrella was replaced by another precisely the same as his own, with the exception of the mending. The teacher in question will be pleased to hear of his unfortunate brother who thus lost his good article for a mended one.

K., Inverness Co.—I am reading your mineralogy articles with much interest. I have seen many strange looking rocks in the bed of a neighboring brook. If I send you some of them when the ice and snow go in the spring, will you tell me something about them?

Most certainly. I shall be glad to give you or anyone else whatever assistance I can. About a cubic inch of each specimen will be enough to send.

L. A. DEWOLFE, North Sydney.

R. A. C.—(1) Please answer the following questions in the REVIEW. Name the bird described as follows: In size nearly as large as a robin; the head and back a reddish-orange, while others are slaty, merely tinted with orange; the wings are slate color, striped. Large flocks frequent orchards on mild days in winter.

(2) What is meant by the chinook winds? If they blow through passes in the Rockies, how are they able to moderate the temperature of Alberta?

(3) What is the cause of the black knot found on plum and cherry trees?

(1) Probably the Pine Grosbeak, the description of which we give so that you may compare when next seen: Slaty gray, more or less strongly washed with rose-red, strongest on the crown, rump, upper tail coverts, and breast. Wings fuscous (brown or grayish black), their coverts edged with white; tail fuscous. In the females the red color is replaced by olive-yellow. The bird is rather slow and inactive when in a tree. In flying it has a loud whistle which is very characteristic. It has a general resemblance to the robin, but its short, thick beak and forked tail are striking differences.

(2) The Chinook is a warm, dry westerly wind, occurring several times each winter, and usually lasting two or three days. It brings a spring-like mildness to the temperature and is so dry that the snow and ice disappear without the visible production of water. It seems to absorb moisture like a sponge. These westerly winds blowing from the Pacific, whose waters are warmed by the Japan current, give a plentiful rainfall as they mount the slopes of British Columbia toward the Rockies. Climbing over these or through the passes they retain their warmth though they have lost their moisture, and hence moderate the temperature in the plains of Alberta and other portions of north western Canada and the United States. There are similar winds in Switzerland, New Zealand and other parts of the world. The wind is so called because it blows from the region of the Chinooks, tribes of Pacific coast Indians.

(3) The black knot is a kind of fungus very destructive to cherry and plum trees. Children should be taught to prune off the twigs on which it occurs and burn them.

"We Japanese," the Japanese minister at Paris is credited with saying, "have for many generations sent to Europe exquisite lacquer work, delicately carved figures, beautiful embroidery and many other commodities which showed how artistic we were; but the Europeans described us as 'uncivilized.' We have recently killed some seventy thousand Russians, and every European nation is wondering at the high condition of civilization which we have attained."

CURRENT EVENTS.

A contract has been made with the Allan line for a direct steamship service between this country and France.

For the Allan line service between Canada and the British Isles, two new turbine steamships have been built, the first of which is now on her trial trip, and will sail for Halifax on March 23rd. These ships will be able to make the run from Moville to Halifax in five days and twelve hours, or from Moville to Rimouski in six days.

A bill is now before parliament for the erection of two new provinces in the Northwest. Each will cover approximately half of the territory now occupied by the provisional territories of Assiniboia, Saskatchewan, Alberta and Athabaska; and the division line between them is the 110th meridian. They are to be named respectively Saskatchewan and Alberta; and have a present population of about 250,000 each. Regina and Edmonton are to be the provisional capitals. The change will probably take effect on Dominion day, when there will be nine provinces in the Dominion, forming an unbroken line from the Atlantic to the Pacific coast.

While the Atlantic provinces of Canada are still under the deepest covering of snow that we have known for many years, spring has come in Alberta, and seed sowing has begun.

The Simplon tunnel is completed, and it will soon be open for traffic. From Briga, in Switzerland, to Iselle, on the Italian side of the mountain, it has a length of about twelve miles.

The Emperor of China has recently approved a memorial presented by a prominent official, advising the establishment of a council of officials, to meet at the emperor's command. Such an official advisory board may be likened to the legislative council and executive council of a crown colony under our system of government, and is looked upon as a step towards parliamentary government.

The British government, which has for many years owned and controlled the telegraph service in the British Isles, in connection with the post office department, has decided to buy out the National Telephone Company, and conduct the telephone service in the same way.

Canada will take over the defences of Halifax and Esquimalt on the first of July, and maintain them as at present maintained by the British forces. The offer to do so was made three years ago, but was not accepted at the time. The imperial troops in the West Indies will not be withdrawn at present, as their presence there is needed in case of disorder among the blacks.

J. W. Tyrrell, the Canadian explorer, who has recently returned from the far north, is strongly impressed with the great value of the Hudson Bay route to Europe. He believes that Hudson's Strait will be found navigable for five months of the year. The bay, of course, is always navigable, for it never freezes over. The country around the shores of the bay is rich in game and minerals; and at Chesterfield Inlet a rich timber belt runs far westward into

the so-called barren lands. In addition to the whaling and walrus hunting which have been carried on there for many years, the waters of the bay will supply cod and salmon enough to attract large fishing fleets during the summer.

The Canadian government intends to send a steamer every year to the north of Hudson's Bay, to keep up communication with the mounted police post established there. The Neptune, on her recent voyage, raised the British flag on the Arctic Islands as far north as Ellesmere Land, taking possession of them as a part of Canada.

Crown Prince Gustav, the newly appointed Prince Regent of Sweden and Norway, is to marry the Princess Margaret, daughter of King Edward's brother, the Duke of Connaught.

The coal fields of China are believed to be seventy times as great in extent as those of Great Britain. It is expected that they will soon be extensively worked, and that China will export large quantities of coal and iron. The remarkable part of the matter is that the great coal and iron deposits of Northern China have remained so long undeveloped; for the earliest European travellers in that country brought back marvellous stories of the inhabitants digging stones out of the mountains to burn.

A remarkably rich mine of silver and nickel has been discovered in Northern Ontario, near Lake Temiscamingue.

In a limestone formation near Revelstoke, B. C. some mining prospectors have discovered a cave of immense size, said to rival the famous mammoth cave of Kentucky. It is two miles in length, with a width of nearly half a mile, and a depth, in some places, of two thousand feet.

Canada will receive an unusually large number of immigrants this year, especially from Norway, Sweden and Germany.

Thirty-two states have been created since the original thirteen states were organized into the United States republic, and now two additional ones are to be admitted into the union—New Mexico and Oklahoma, making in all forty-seven states. The former is large with an area of 122,000 square miles and a population of 200,000; the latter, which includes Indian territory, has an area of 70,000 square miles and a population of 800,000.

King Oscar II of Sweden and Norway, is growing old and feeble, and he has made his son, the Crown Prince, regent of the two kingdoms. Among the Norwegians there has been for many years past a growing feeling that the rights of Norway as a sovereign state were not fully recognized in the terms of the existing union. The retirement of the king, who was much liked by all his subjects, may have an unfavorable effect upon the relations between the two countries over which he has ruled for upwards of thirty years.

Treaties which the United States government had negotiated with Great Britain, France, Germany, Switzerland, Portugal, Italy, Mexico and Denmark, by which certain disputes that might arise in the

future were to be referred to the Hague Tribunal for arbitration, have failed to obtain the consent of the United States senate. A reciprocity treaty with Newfoundland has met the same fate. The framers of the United States constitution were afraid to trust the government of the day to make treaties with foreign powers; so it is provided that no treaty can go into effect without the approval of the senate by a two-thirds vote. It may often happen, therefore, that the president and his cabinet find themselves in the humiliating position of having their treaties disallowed.

The southern part of Arabia is in revolt against Turkish rule. The object of the insurrection is believed to be the creation of an autonomous state.

At enormous sacrifice, and after over two weeks of fighting, the Japanese have won a decisive victory in Manchuria. The losses are very heavy on both sides; but, while those of the Japanese are the heavier, they have succeeded in outflanking the Russians and, perhaps, in cutting off their only line of retreat. Position after position, which the Russians spent the winter in fortifying, were abandoned before the impetuous onsets of the troops of Oyama, whose name will go down in history as one of the world's greatest strategists. The only resource left to Kuropatkin is to retreat to Tie Pass (pronounced Tee-eh) with the remnants of his army; but the Japanese have anticipated this move, as large forces of them have appeared in the vicinity of that great natural stronghold. Even if the Russians succeed in reaching it their powers of resistance against the victorious Japanese will be greatly lessened as they have burned vast quantities of provisions and stores, and lost many guns. The losses will greatly exceed 100,000 men, and Kuropatkin may have to surrender his whole army.

The decision of the international commission of inquiry into the North Sea incident supports the British contention, that the English fishing fleet committed no hostile act, that there were no torpedo boats among or near the fishing boats, and that the action of the Russian admiral in opening fire upon them was not justified. The Russian government has already expressed its regret at the occurrence, and will probably pay an indemnity to the sufferers. Political disturbances in Russia continue, and seem to be spreading to all parts of the empire. An insurgent government has been formed in the Caucasus, where the revolt is at present most serious. The greater part of Russian Poland is under a form of martial law. An uprising of the peasants of the southern provinces is feared. It seems, indeed, that the whole country is ripe for revolution, and that the revolution has begun, that the Armenians, Circassians, Finns, Poles, Letts, Little Russians, Great Russians, White Russians and other races that make up the population of Russia-in-Europe and Trans-Caucasia, not to mention the less civilized people of Russia-in-Asia, could agree upon a settled form of government to take the place of the present autocracy, is quite

beyond belief. The Czar had determined to convoke the Zemsky Sobor, a sort of national assembly that has not met for some two hundred years; but the assassination of his uncle, the Grand Duke Sergius, following so soon after an attempt upon his own life, has made that course more difficult. The strengthening of the autocratic rule, or reign of terror worse than that of the French revolution, would seem to be the alternative before him. High hopes, however, are entertained by the government that the Czar's rescript, issued on March 4th, promising to call a representative assembly, will quiet the people and check the revolution.

The Grand Duke Sergius was the head of the war party in Russia. His widow is the Princess Elizabeth, a granddaughter of the late Queen Victoria, and a sister of the Czarina.

Reinforcements and supplies have been going forward for the Russian fleet in the Indian ocean. Just where and when it will meet the fleet of Japan is, of course, unknown; but it will probably cross the ocean soon, if the war is to be continued, as the stormy season is approaching.

By his action in respect to Santo Domingo, President Roosevelt admits that there is a reverse side to the Munroe Doctrine, and that it is the duty of the United States to interfere in the affairs of misgoverned American states, if they object to other nations doing so. As a result, in South American countries, just at present, there is less dread of European aggression than of North American aggression.

The city of Buenos Ayres has now a population of more than a million, and is growing faster than either New York, London or Paris. It is the commercial metropolis, not only of the Argentine Republic, but of all the southern part of the continent east of the Andes. New railways centering at Buenos Ayres are opening up fertile plains that as a wheat producing country are Canada's only rival.

SCHOOL AND COLLEGE.

A bill designed to protect teachers in public schools from threats and abuse by parents or others during school hours has passed the Nova Scotia House of Assembly and will soon become law. It provides that a person who, in the presence of pupils, uses profane, threatening, abusive language, or speaks or acts in such a way as to impair the discipline of the school, shall be liable to a penalty of not less than five, or more than twenty dollars, or, in the alternative, imprisonment.

The New Brunswick Sunday-school Association announces that a "Tour," similar in many respects to that of last year, will be made through the province during the coming summer.

We are indebted to Dr. G. M. Duncan, of Bathurst, N. B., for a copy of the annual report of the school board of Glasgow, Scotland,—an interesting document.

A noted educational event of the past month was the opening of the Provincial Agricultural College at Truro, N. S., on the 14th. There were present prominent men

from all parts of the province, and many excellent addresses were given on agricultural education. It is felt that Mr. Cummings, principal of the college, has the qualities and training to make it a success and a prime factor in the industrial progress of the country. The college has 44 students from Nova Scotia, 6 from New Brunswick and 9 from P. E. Island.

Mr. E. Brydone-Jack has resigned the professorship of engineering in the University of New Brunswick to accept a similar position at Roanoke, Virginia. No successor will probably be appointed until the beginning of another college year. By a re-arrangement of classes and work under competent instructors the university authorities have satisfactorily settled what seemed to be an awkward difficulty—the resignation of a professor in the midst of his year's work.

Mr. Louis Brehaut, B.A., has been selected as the Rhodes scholar this year from Prince Edward Island. He is in his twenty-fourth year, has a brilliant record as a student. He won a county scholarship, entering Prince of Wales College. He attended two years and graduated with the honor diploma, and the Anderson gold medal for the highest standing. After some time spent in teaching, he entered Dalhousie University, where he won a very valuable scholarship, specialized in Greek and English, and graduated in 1904 with honors in these subjects, winning the university gold medal.

The faculty of Acadia University has elected Roy Elliott Bates, of the class of 1904, to the coveted honor of Rhodes scholar for Nova Scotia. He is twenty-one years of age, a son of Rev. W. E. Bates, and a young man of excellent moral character, high literary and scholarly attainments, and prominent as an athlete. During the present college year he has been pursuing post-graduate studies at Harvard.

The authorities of Kings College, Windsor, are very enthusiastic over the prospects of the new engineering school at Sydney. Professor Dahl is now holding evening classes in mechanical drawing and machine design at Sydney, and in mining at Glace Bay, with an attendance of about 130 students.

RECENT BOOKS.

BUILDERS OF THE DOMINION: Men of the East. By Emily P. Weaver, author of a Canadian History for Boys and Girls. Cloth. Pages 116. Price 35 cents. Copp, Clark & Co., Ltd., Toronto.

In this little volume Miss Weaver has given sketches of twenty-one notable "Men of the East," beginning with the Cabots and ending with Sir William Dawson. The stories of the lives of these men are written in simple language, and the book is an excellent one for school libraries and for supplementary reading.

A LITTLE BROTHER TO THE BEAR, and other Animal Stories. By William J. Long. Cloth. Pages 178. Ginn & Co., Boston.

Mr. Long is credited with seeing more wonderful things in the woods than any other man, but his stories have a perennial freshness and interest about them which have delighted many readers.

THE JONES READERS. By L. H. Jones, President Michigan State Normal School. A series of eight books, 12 mo. Cloth. Illustrated. Ginn & Co., Boston.

These readers present a course corresponding to the eight grades below the high school. They have grown out of an earlier series of five books reviewed in the October, 1903, number of this journal. These had become so widely adopted in schools that revisions and additions had been rendered necessary to bring the series more fully up to modern conditions. They are carefully graded, each volume beginning with matter and illustrations suitable to the child's understanding and gradually increasing in difficulty. Much attention is given to nature study; and the literary selections are well chosen from some of the world's best writers. It is a very attractive series in binding, illustrations and is of almost perfect mechanical execution. One rises from a somewhat careful review of its literary features with the impression that these have been just as carefully looked after. Each story and selection has been made with the object not only of interesting and instructing children, but conveying moral lessons.

Boccaccio's TALES FROM THE DECAMERON. Edited by W. H. D. Rouse, Litt. D. Paper. Pages 119. Price 8d. Blackie & Son, London.

This convenient pocket edition contains the original introduction to the Tales and such well-known stories as the Patient Grizelda, Saladin, and others.

Lamb's SCHOOL DAYS AND OTHER ESSAYS. Edited by W. H. D. Rouse, Litt. D. Paper. Pages 128. Price 8d. Blackie & Son, Ltd., London.

This little book contains a brief biography of Lamb, with the quaint record of his school days at Christ's Hospital, or Blue-coat School, together with other essays.

Macaulay's FIRST CHAPTER. Edited by W. H. D. Rouse, Litt. D. Paper. Pages 136. Price 8d. Blackie & Son, London.

This contains a re-print of the First Chapter of Macaulay's History, introduced by a short biography of the eminent historian.

EMILE ET HELENE: A French Primer. By Mrs. J. G. Fraser. Cloth. Pages 75. Price 1s. Macmillan & Co., London.

This is a pretty little story written for young children beginning French. It is accompanied by a few simple grammatical exercises and a vocabulary.

HOW TO DRAW A MAP FROM MEMORY is a useful series of outlines of continents and the best known countries of the world. The plan is exceedingly simple, each map being based on drawing a straight line and dividing it into twelve equal parts. It offers a good combination of drawing and geography work into which the duller pupils may enter with zest. Price 1s. Blackie & Son, London.

SYLLABUS OF CONTINENTAL EUROPEAN HISTORY. By Oliver H. Richardson, Assistant Professor of History, Yale University, New Haven, Conn. Boards. 84 pages. Mailing price 85 cents. Ginn & Co., publishers, Boston.

This syllabus affords a general survey of the political economic and social development of the peoples of the

continent of Europe from the Fall of Rome to the year 1870. It contains seventy-eight sections, each complete in itself and preceded by a biography, with readings systematically paged. It is an invaluable guide to the student and historical reader.

In three of Blackie's Little German Classics, price 6d. each, we have Goethe's charming one-act drama "Die Geschwister" (Brother and Sister) and his "Road to Italy," a diary of the poet's journey into Italy. "Die Silberdistel" (Silver-thistle) is a short story by Ernest Muellenbach, one of the recent German novelists. This portrays the joys of simple living. There is a brief introduction and notes to each "classic."

Coleridge's THE RIME OF THE ANCIENT MARINER. Edited with introduction and notes by P. T. Creswell, M. A. Paper. Pages lv+62. Price 1s. Macmillan & Co., London.

This little book is chiefly of value for the admirably written introduction which it contains on the life and work of Coleridge. The thoroughness with which the whole editorial work on this masterpiece among ballads is done commends itself to the thoughtful reader.

Milton's PARADISE LOST. Book VI, With introduction and notes, by H. B. Cotterill, M. A. Paper. Pages xxxv+70. Price 1s. Macmillan & Co., London.

The introduction contains a careful summing up of the contemporary critics of Milton's great work. The notes are full and scholarly.

Beaumarchais' LE BARBIER DE SEVILLE. Edited by W. G. Hartog, B. A., University College, London. Semi-flexible cloth. Pages 74. Price 8d. Blackie & Son, Ltd., London.

This popular masterpiece of comedy is here put in a convenient form and at a price within the reach of all who would be delighted afresh with its harmless pleasantries and sallies of wit.

Morike's MOZART AUF DER REISE NACH PRAGUE. Edited with introduction and notes by William G. Howard, Instructor in German in Harvard University. Cloth. Pages 125. D. C. Heath & Co., Boston.

This little story, of which one of the most lovable of German musicians (Mozart) is the subject, will be appreciated by students of German, whose needs are considered in this modern edition with its full notes.

RAPID REVISION EXERCISES IN FRENCH SYNTAX. By W. Herbert Hill, M. A. (Lond.) Cloth. Pages 63. Price 1s. 6d. Blackie & Son, London.

This book contains an abundance of very short and simple examples, the mastery of which is a sure road to French with the least possible expenditure of time and labor.

Milton's PARADISE LOST. Book VI. Edited with introduction, notes and appendices by Albert E. Roberts, M. A., Cambridge. Cloth. Pages 96. Price 1s. Blackie & Son, London.

This volume is provided with a good introduction, and the notes are clear and to the purpose.

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THE STORY OF CUPID AND PSYCHE. By H. A. Guerber.
Board. Pages 32. D. C. Heath & Co., Boston.

This interesting little story is arranged for translation into French, and there is a complete vocabulary provided for the purpose, with hints within parentheses throughout the text.

LESSONS IN EXPERIMENTAL AND PRACTICAL GEOMETRY.
By H. S. Hall and F. H. Stevens. Cloth. Pages 94+i. Price 1s. 6d. Macmillan & Co., London.

This is a short preliminary course of practical and experimental work in geometry, and serves an excellent purpose as an introduction to that subject.

THE SUPERVISION OF COUNTRY SCHOOLS. By Andrew S. Draper, LL. D., Commissioner of Education, State of New York; Cloth. Pages 43. Price 50 cents. C. W. Bardeen, Syracuse, N. Y.

Mr. Draper's address is interesting to those connected with country schools; and his review of their conditions, as well as of other rural problems, is worthy of thoughtful attention.

COLONIES AND COLONIAL FEDERATIONS. By E. J. Payne, Fellow of University College, Oxford. Cloth. Pages xx+265. Price 3s. 6d. Macmillan & Co., London.

The increasing importance of the colonies, the closer relations between them and the mother country, and the larger questions of Imperial policy and commerce make such a book as this especially appropriate to the times.

The writer discusses with intelligence in the four chapters in which the book is divided the geographical, historical, economic and political questions. Especially does he take a moderate and hopeful view of the economic and political outlook. But both "Britain and the Colonies must consult their mutual interests, and act on the principle that 'charity begins at home.'"

SEVEN LAMPS FOR THE TEACHERS' WAY. By the late Frank A. Hill, Litt. D. Cloth. Pages 34. Ginn & Co., Boston.

This essay by the late Frank A. Hill, Secretary of the Massachusetts Board of Education, has been printed in a neat little volume, for which a biographical sketch of the author has been written by Mr. Ray Greene Huling. Mr. Hill was an inspiring teacher and had literary and executive abilities of a high order. The little book is worthy of a place among the few that teachers should have close to them for frequent study and inspiration.

MOTHS AND BUTTERFLIES. By Mary C. Dickerson, Head of the Department of Biology and Nature Study in the Rhode Island Normal School, Providence, R. I. Cloth. 344 pages. Illustrated. Mailing price \$1.40. Ginn & Co., Boston.

This attractive and useful book is published in time for the lively interest in the natural world that is ever sure to come with the awakening spring. The author leads up to her subject by easy stages, and the treatment is un-

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HOW TO KEEP WELL. Revised edition. A text-book of physiology and hygiene for the lower grades of schools. By Albert F. Blaisdell. Cloth. 265 pages. Illustrated. Mailing price 55 cents. Ginn & Co., Boston.

The simple facts which concern our bodily life are clearly and tersely presented in this revision of a standard text-book. In the present edition the work has been rearranged and re-written in order to bring it into harmony with the latest ideas in regard to the teaching of physiology.

MARCH MAGAZINES.

The *Canadian Magazine* has some beautifully tinted pictures of the Russo-Japanese war, with many other interesting illustrations and a variety of contents. The sketch of Professor Robertson will be widely read, as also the article on the Agricultural Progress of Quebec, with its suggestive portraits of families of thirteen and sixteen children.... We have received the February and March numbers of the *Mother's Magazine*, published by Miss Marion Wathen, Harcourt, N. B. It is intended for mothers, kindergartners and primary Sunday-school teachers. It is a useful little magazine and presents a creditable appearance.... The *New Brunswick Magazine*, number 5, volume 4, begins with an interesting story, complete in this number, by Dr. James Hannay, entitled *Two Loves*. It is founded on an incident of the Miramichi fire, and is well told. The remaining contents embrace articles on the Free Public Library, St. John, the conclusion of the story *On a Pirate's Isle*, *The City Finances*, and others. Pub-

lished by John A. Bowes, St. John, N. B.... The initial number of *Canada First*, the Canadian Preference League Magazine, has been received. Its object is to foster Canadian sentiment and a national pride in the products and achievements of this country. Besides articles calculated to carry out these aims to best advantage, *Canada First* contains literary essays, stories, poems and miscellaneous matter.... The *Atlantic Monthly* series of *Letters to Literary Statesmen* begins with a sardonic epistle from "Alciphron" addressed to President Roosevelt. Goldwin Smith avows himself a lover and admirer of Scott as a poet. The interesting extracts from Thoreau's journal are continued. There are excellent literary papers and complete stories, and the initial chapters of a new serial by Margaret Sherwood, entitled *The Coming of the Tide*, which promises to absorb the reader's attention. The Contributors' number is lively and entertaining.... The *Living Age* continues its notable series of articles on the Far-eastern situation, with an illuminating analysis of *The Real Slav Temperament*, by H. M. Connacher, in the number for February 25; the resumé of causes and results which Alfred Stead calls *Port Arthur—and After*, in March 4; and another of "O's" brilliant sketches from the field, in March 11. *Life's Little Difficulties* (*Punch*) continue to divert the readers of the *Age*. Their humour captivates.... The *March Delineator* is a most attractive number throughout. A discussion of *The Use and Abuse of Armorial Bearings*, by William Armstrong Crozier, is a noteworthy contribution, and the story of Charlotte Elliott's favorite hymn, *Just As I Am*, as related by Allan Sutherland, is of greatest interest. Other features are *The Game of Politics as it is Played in Washington—and more particularly, woman's part in it—by "Marie Columbia,"* and a reproduction of miniatures from the *Marie collection*.... The *Chautauquan* has a number of articles appropriate for study during the season, such as *Winter Palace Square, St. Petersburg*, *Recent Social Conditions in Romance Countries*, *Schubert and His Music*, *Tree Study in Winter*, etc.

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