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R. B. WALLACE, Editor and Manager

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Fredericton, N. B.

SOME USEFUL AND NECESSARY N. B. LEGISLATION.

Some confusion has been caused by loose definition of marshlands which exist along all rivers and tributary streams, and the owners of such often reside in other districts, and claim exemption from school taxes. As far as possible each school district should be entitled to taxes upon all the property within its bounds. By the amended Act, the owners of dyked marsh and river island land, only may be taxed upon it in the district in which they reside.

The Board of Education has been empowered to spend a sum not exceeding \$5000 in any one year to provide school privileges for isolated pupils in unorganized districts, either by paying the board of such pupils in districts maintaining schools, or providing conveyance to and from the same.

Sub-section (4) of Section 72 School Manual has been amended to facilitate the enlargement of school grounds for school garden or other purposes, and in the interests of economy the number of jurymen required to fix the valuation has been reduced from five to three.

Authority for increased assessment has been given to several of the cities and towns of the Province, including St. John, Fredericton, St. Stephen, Milltown and Moncton.

An Act was passed authorizing the Board of Education to appoint a commission, consisting of the Chief Superintendent of Education, a member of the Executive Council, a member of the Legislature supporting the Opposition, a School Trustee, and a Teacher of the public schools, to be named by the Teachers' Association, to take into consideration and make recommendations as to the best means to provide increased salaries for teachers in the public schools of the Province, the Commission to report to the Legislature at its next session.

DAYLIGHT TIME

Whatever may be the advantages of daylight time in the cities and towns, it is quite generally admitted that they do not exist to the same extent in the country.

It is not necessary here to repeat the reasons which have been given again and again, but it may be in order to point out a few things not always understood. The Dominion Parliament can not legislate for the schools of any province, therefore it is a mistake to suppose that it has enacted daylight time for this purpose. As a matter of fact it has not passed any legislation regarding the matter. Neither has the Provincial Legislature interfered regarding it.

There is no School Law in New Brunswick requiring any school to open at any particular time in the morning. The minimum teaching time is five hours per day, and the maximum six hours.

Each district is a democracy in so far as daylight time is concerned, and the trustees may elect to follow it or not as best suits the convenience and needs of the district.

It is manifestly awkward to have two standards of time, and the action of the railroads has left many people no choice. Under such circumstances why would it not be expedient to open school at ten o'clock day light time and dismiss nominally one hour later than at present, but really upon local time.

RAMBLES IN NOVA SCOTIA

Warblers Happily Busy in the June Woods.

Now we have reached the forest of second-growth hardwood on the mountain. The tide of warbler-migration is at its flood. The woods are full of warblers. From almost every tree comes the song of one of these little birds. Eagerly they are breakfasting on the flies and other insects that infest the trees.

The American redstart is surely the most abundant. Through the trees this brilliantly colored bird floats and flashes, darts up and down for flies, opens and shuts his tail like a tiny but gaudy fan, and keeps singing his song the while. Appropriately have the Cubans named this bird "candelita," meaning the little torch that flashes and flames in the gloom of the tropical forest. The male in his gorgeous suit of black with salmon on breast, wings and tail, has not inaptly been likened as he flashes among the branches, to a "wind-blown firebrand, half glowing, half charred." This warbler always commands our admiration not only for his beauty but also because he cannot be mistaken for any other of his tribe, a rare virtue among warblers. The more modestly dressed female may be readily distinguished by the dull yellow that replaces the salmon of the male.

Another brilliantly colored warbler that is fairly common is the magnolia warbler. Possessed of the virtue of coming down to the low bushes, he gives a fine opportunity to inspect his coat of many colors—white, black and yellow, with bluish grey on the crown.

The white band across the middle of the tail is a sure mark of identification. He is a most distinguished looking warbler and, being somewhat confiding, is always a welcome discovery among the bushes. He has

been with us since May 20, and will nest among the coniferous trees on the mountain.

Down from the trees comes the wiry "see-see-see" of the black-and-white creeping warbler. Training our opera-glass on the tree from which the faint song issues, we soon see a little black-and-white bird, the zebra among warblers, creeping zigzag up the trunk and along the branches. His name, unlike so many of the names applied to birds, is thoroughly descriptive both of his dress and of his manner. Black-and-white he surely is, and, unlike his warbler relatives, creeps about among the trees after the manner of a nuthatch or brown creeper, but without the former's love to run head first down a tree-trunk, and without the latter's plodding regularity in his search for insects and larvae.

From a high ever-green there floats to our ears the distinct and easily recognized song of the black-throated green warbler. Bradford Torrey heard in that song the words "trees-trees, murmuring trees;" but what ever we words "trees-trees, murmuring trees;" but whatever we may hear in it, it is a characteristic song not easily mistaken for any other. From the spruce groves we listen to it throughout the summer as we drive along the country road.s

While straining our neck to get a good look at the inverted black V on the breast of the black-throated green warbler, a junco flies up from our feet. Soon the nest of grasses with its lining of long hairs is disclosed on the side of a little cradlehill. A small root arches out in front of it, and, together with dried leaves, forms a canopy for the nest, which contains four dull white eggs, the larger ends of which are blotched with brown. The parent-birds utter cries of alarm and distress, and seating myself by the nest I await developments. Soon the cries of the juncos bring other birds on the scene. The blackthroated green warbler that I was striving to get a good look at came down on a limb to within two feet of my opera-glass. A creeping warbler stopped searching for insects and hopped around within a few feet of me, trying to express his sympathy or satisfy his curiosity. A magnolia warbler called to see what the trouble was. Soon these had satisfied their curiosity, or tired of expressing their sympathy for the juncos, left, but a pair of even birds continued to fly round and round me, the male with the feathers on his head erect. We had plainly heard his sharp crescendo ringing through the woods as he sang, "Teacher, teacher, teacher, teacher," on a rising scale and with intensifying shrillness. Now he was flying but a few feet from me, or walking along a limb, and showing his beautifully speckled breast and olive-green upper parts. This pair lingered longest, but at last walked leisurely away, and no prettier pedestrian ever set foot on the forest-floor, no fairy ever tripped through the forest-aisles with greater grace. Finally we rose from

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our place beside the nest, saying to the still agitated juncos: "Much ado about nothing." What a pity the birds cannot discriminate between their friends and their enemies.

Other varieties of warblers were to be seen or heard but not in any great numbers. The chestnut-sided warbler, always rare enough with us to be regarded as a lucky discovery, was noted. A single female was seen nervously flitting about the lower growths. On a white willow in full bloom by a little spring we discovered a northern parula warbler. The whole tree was a-buzz with insects. As we watched the warbler he came down to the lower branches and almost peeped into my fieldglass. A bumble-bee flew around him but he had no desire to snap him up as he did the flies. In fear he flew from the bee. Last May we watched a pair building a nest in a bunch of usnea lichen. This warbler is greyish blue above, with a yellowish patch on the back which makes identification easy. Only one myrtle warbler was seen, and that on the lower slope of the mountain, high up in a spruce. His four yellow patches on each side of the breast, on the crown and on the rump, make him easily recognized. He has been with us since May 2, being one of the earliest warblers to arrive in the spring.

Passing out into the carriage road that crosses the mountain, a male ruffled grouse ran across the road in front of us. He seemed innocent of all family cares as he ran over the dry leaves and disappeared. In the deciduous trees along this road we came upon a bird rare enough in these parts to make the day a red letter one for us. Three male rose-breasted grosbeaks delighted us with their joyous morning carol. The males with their rosy breasts, and black-and-white plumage were conspicuous enough, but the brown, sparrow-like females were not noted.—(Rev. G. C. Warren, Bridgetown, N. S., June, 1915).

ROOTS

When we look around us at the growing things in the vegetable world—the trees, shrubs, herbs, and grasses—it is easy to overlook the roots, simply because they are hidden. But the fact that they are hidden does not mean that they are unimportant. On the contrary, they form a very important part of every plant, and have their own work to do. When we plant a seed the first part to grow is the radicle, which becomes the root. The young plant has no chance in life without a root, because the root gives life and strength to the baby plant and becomes the mainstay of the old one.

We see, then, that roots are important. If any one imagines that an ordinary plant could flourish without one, it is only necessary to find some healthy plant (a weed will answer), and cut off the root. The result soon proves to us that any plant would wither and die were its

roots cut away. The farmer could tell us a tale of insects getting at the roots of hiis crops and interfering with their growth, which would further convince us. Yet in spite of all this, there are a few plants without roots. It suits their way of life to take in food by other means. Such a fact only proves to us how few hard-and-fast rules there are in Nature.

The Work of Roots.—Having proved that the root is important, it remains to find out exactly the nature of its work. But we must first understand that not every underground part of a plant is a root. Sometimes stems are found undegound, so that we natually wonder how we shall distinguish roots from underground stems. As a rule if we find buds, then our underground portion is not a root.

Now try to answer these questions correctly. Is an onion a root? What would you call a potato? When you dig up a fern, would you name all the underground portion its root?

Let us now find out the work of roots. Remembering that the root always appears first when seeds germinate, we naturally conclude that its main function is to anchor the plant in the soil. Without roots every plant and tree would be blown down in a wind; but when once the roots have gained firm hold it takes a lot to move a mighty tree. But anchorage is not the only work of the root. It has also the very important duty of absorbing water and mineral salts from the soil. We may say that the root helps to feed the plant, for it gives it both food and drink. The food is taken up in solution, just as we might eat a lump of sugar by letting it dissolve in some hot tea. The sugar passes into our body just in the same way that various minerals pass into the plants. It is not quite true to say that the minerals taken in from the soil in solution are good foods. In most cases, at least, they are only the raw materials which have to be worked up into good foods by the plants before they can really make use of them. This "working up" takes place in the leaves.

Holding the plant in position and feeding the plant are the two main functions of roots, but there are others. In the case of biennials, that is, plants that live for two years or seasons, swollen roots form reserves of food material for the plant's use during its second year of growth. Man makes use of this by digging up these underground larders to stock his own.

In the case of the ivy plant we find roots growing from the stems, merely as claspers, to aid the ivy in holding out its leaves to the light.

As a general rule, we say that buds on an underground growth point to its not being a root. Yet this does not always apply, for in some instances, such as the raspberry, the plum, and the elm, buds are formed on roots and the root becomes, in effect, a stem. Nature has many and varied ways of spreading her children through the earth, and this—though infrequent—is one of them. Some fruit trees give the gardener trouble with the shoots they throw up continually. These arise from buds on roots, whereas "suckers," as they are called, arise from underground stems. Roots exposed to the air will also send up branches, as any old hedgerow shows plainly.

Life and Work in the Soil.—The root system should be compared with a river system, every minute tributary adding volume to the main stream. Or each rootlet may be likened to a groping feeler or finger with a protecting thimble on its tip. This is the root-cap, which protects the tender growing point behind it. As the rootlet grows it works like a corkscrew through the earth, searching persistently for food, and twisting according to the shape and hardness of the obstacles with which it meets.

It is well known how rootlets follow the curve of a flower-pot. The root-hairs, which may be seen fringing the rootlet above the tip, absorb moisture containing minerals through their thin walls. Note, too, that the hairs also give off a weak acid, which attacks those substances in the soil which cannot otherwise be dissolved and absorbed.

The strength which these numberless rootlets exert can be imagined. Growth is almost irristible, and curious are the results sometimes produced by it. In towns we often see pavements raised and broken by the growing roots beneath. Another strange result may also be seen. The roots, as they grow, come against a hard layer of rock, through which they can find no opening. But growth continues, and the result is that the tree is lifted out of the ground by its own roots; then you may see the upper roots above ground. Of course, they are sometimes exposed by the washing away of surface soil, but not always. There are many trees in our parks whose roots are twisted and looped into the air, on one side or the other of the trunk, through the cause we have described.

Plants seem to select the minerals they require when they become used to the soil in which they are planted. The modern farmer provides for his crops such minerals as they require which the soil lacks.

The Kind of Roots.—It is quite easy to put all our roots into one or other of two systems— the fibrous and the tap root. Those who have studied Nature must have noticed that all plants grow in one or other of two ways—either with parallel-veined leaves growing independently from each other, or with a main stem from which leaves branch out in all directions, whose veins follow the same plan.

Take a root of grass as an example of the fibrous system. Notice the thread-like roots, growing in much the same way as the blades of grass above. All the grasses and their allies have root systems of this type. No main root can be seen. Most of our large plants follow

the tap-root plan. There is one main root, which grows straight downwards in the soil, and from this other roots and rootlets spring at intervals. We see it plainly in such tap-roots as beet, carrots and turnips, but in these edible roots the main one is so swollen that we usually ignore the others.

Sometimes it is difficult to follow the main root in a tree simply because the side roots have spread out and developed so much that the root system has become a tangled mass of roots, holding the tree in the soil. When the tree has to withstand great gales from one direction we find its roots piercing the ground for some distance on the windward side, as if the roots were doing their very utmost to aid the tree in keeping its balance and prevent it being torn up from the earth. This is one of the many ways in which living things respond to the forces that act upon them.

What makes the root grow downwards? It is a natural question, and bound to arise whenever roots are studied. Many clever people have given their time to the study of the query, and they have told us that the root goes down in answer to the call of gravity, further proving that it is only the tip of the main root that answers the call.

Another influence must be the moisture in the soil. Roots always grow in the direction of the moister soil. We do not know why, but we do know that it is so. Then again, light exercises an influence. We rarely see the roots of plants growing above the soil. It is true that the woody roots of trees are often laid bare by the wearing away of the soil, but the ends of those roots are hidden deep down in the earth. Roots seem to dislike the light, and turn away from it. It may be that they are seeking moisture, and do not find enough in the air above. In tropical swamps, where the air is saturated with moisture, such plants as mangroves frequently send up roots above the ground.

These air roots partly take up the duty of the stems, having special stomata which are entirely absent in underground roots. Other roots which have peculiar habits are those af parasitic plants, like mistletoe and broomrape. They intercept the food which the roots of other plants have absorbed; they also grow in any direction without obeying the general rule that roots must tend downwards owing to the force of gravity. But, then, they are rather "suckers" than true roots.

Origin of Edible Roots—Not one of the roots on which we place so much store has been given us by Nature in its present condition. The carrot is, perhaps, as good an instance as we can find. Wild carrots are common enough, their pretty leaves ornamenting the field edges. They die down each season; that is they are annuals. By careful selection of seed and time of planting the carrot was persuaded to become a biennial with

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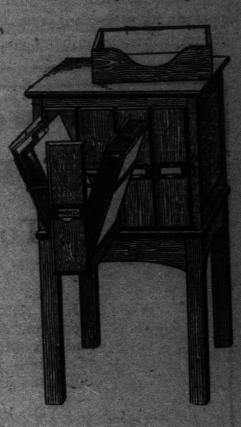
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stored-up material in its root to furnish energy for seeding in the second year. It seems to have been grown thus in England since about 1550 A.D. Many wild plants resemble the carrot in appearance, but its flower is distinguished by the red flower in the centre of an umbel of white ones. The root is thin, and, strangely enough, it has poisonous qualities.

The radish is related to, and resembles the turnip. There are several forms of wild radish, from one of which our edible one may have descended. Like parsnips, the radish expands to fit the soil, growing longest and best in very light mould. Turnips grow wild in all parts of Europe, but man has made a great difference to the size and quality of the root. The rape is practically a turnip; in one case the plant is grown for the sake of its root storehouse, in the other for its seed, from which comes colza oil. By his selection man has improved the root or the seed of the same wild plant.

Beet roots were prized of old for the sake of the leaf more than the root, the latter being used medicinally. Some beets are still valued for the leaf only, but the world is most indebted to this root for its concentrated storage of sugar.

Roots in Medicine.—Man uses the roots of plants not only for eating, but various roots are also very useful for medicines and in beverages. Ginger is the root of a

plant in the East and West Indies, while chicory—which we mix with coffee—is the carrot-like root of a plant that has been roasted and ground. The roots of the dandelion are used in medicine, and there are many other wildlings which are of use to the druggists in their roots. The rhizomes of blue and white flags, when dried, produce orris root, while arrowroot is manufactured from the roots of several species of the maranta. The Indians used to cure the wounds of poisoned arrows by arrowroot, hence the name. Turkey rhubarb and liquorice are other root medicines.—In the Teacher's Book of Nature Study, Vol. III.

ALWAYS BORROWING

At a country school entertainment, the boy on the platform began to recite "Lend me your Ears.." "Huh!" sneered one of the seated women, "that's Sairy Jane Barton's boy all right. He wouldn't be his mother's son if he didn't want to borrow something."

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EMPIRE DAY

Empire Day, the last school day preceding the 24th of May, Victoria Day, will be celebrated in our schools this year with more profound feelings of pride in and loyalty to the great Empire of which we form a part than hitherto. This Empire, scattered over the face of the earth, made up largely of self-governing units, welded into greater solidarity during the last five years by the men of Britain, Canada, Australia, South Africa, India and from wherever the Union Jack flies, fighting shoulder to shoulder and mingling their blood in common sacrifice on the fields of France and Flanders, in the Balkans and in Palestine, to preserve democracy and liberty, stands today without a rival among the great nations of the world.

Every school in our land should make special preparation this year for the observation of the day. The happy termination of the great war, resulting in the overthrow of our enemies, the enemies of civilization, should fill our hearts with such gratitude that Empire Day should be celebrated with a greater earnestness than ever before.

The school flag should be at the top of the pole. Flags should adorn the school room.

Abundance of material is at hand for an excellent programme. Accounts of stirring deeds of valour in the great war may be found in prose and poetry in books and newspapers everywhere. Prominent men in the district or from outside of it may be asked to make patriotic addresses. No doubt in almost every school district there are returned soldiers who would give most interesting addresses. Songs and recitations may be intermingled with the speeches.

Some suitable songs and recitations may be found in the December, 1918, number of the Review. Some others are given here for convenience.

HYMN OF PEACE.

(By 'Touchstone' in the Daily Mail, London)

Our enemies have fallen and the sword Of lust and tyranny is beaten down. Joyful, the nations shout with one accord

And eager hands entwine the victor's crown.

Lord, grant that in this hour we may be still

In everything obedient to Thy will.

The night was long and dark, and hard the way But ever to the distant goal we pressed.

Weary and faint, sore stricken in the fray,
But never yet by craven fears distressed.
We kept our living faith, undimmed and bright,

In Thee, our glorious captain in the fight.

Thou gavest us one heart, one mind, one soul

To battle nobly in a noble cause,

To keep the very heart of freedom whole





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And still uphold the high and sacred laws
Of justice and of right on every field,
Trusting in Thee Who wert our sword and shield.

Grant us today a spirit calm and strong

That in our hour of victory we may claim, Who spent our dearest blood to right the wrong,

A triumph over every selfish aim.

Lord God of Hosts, that bidst the conflict cease,

Grant us that we be worthy of Thy peace!

"THE OLD FLAG"

It is only a small bit of bunting,

- It is only an old colored rag,
But thousands have died for its honor,
And shed their best blood for the Flag.

It is charged with the cross of St. Andrew,
Which of old, Scottish heroes had led,
It carries the cross of St. Patrick
For which Ireland's noblest have bled.

Joined to these is the old British Ensign,
St. George's red cross on white field,
Round which, from King Richard to Wolseley,
Britons conquer or die, but ne'er yield.

It flutters triumphant o'er ocean,

As free as the wind and the wave,

And the captive from shackles unloosen'd 'Neath its shadow no longer a slave.

We hoist it to show our devotion,

To our King, to our Country and Laws,

It's the outward and visible emblem,

Of advancement and liberty's cause.

You may call it a small bit of bunting,
You may say it's an old colored rag,
But freedom has made it majestic,
And time has ennobled the Flag.

—St. George.

THE CHILDREN'S SONG.

Can be sung to Hursley, Tune of "Sun of My Soul."

Land of our birth, we pledge to thee;

Our love and toil in the years to be,

When we are grown and take our place;

As men and women with our race.

Father in heaven, Who lovest all, O help thy children when they call; That they may build from age to age, An undefiled heritage.

Teach us the strength that cannot seek, By deed or thought, to hurt the weak; That, under Thee, we may possess Man's strength to comfort man's distress.

Teach us delight in simple things, And mirth that has no bitter springs; Forgiveness free of evil done, And love to all men 'neath the sun.

(Land of our birth, our faith, our pride. For whose dear sake our fathers died, O Motherland, we pledge to thee,
Head, heart, and hand through the years to be.)

—Rudyard Kipling.

TO THOSE WHO SLEEP IN FLANDERS FIELDS

A Canadian Response

Heroes, sleep on! in that long row

Of graves, where Flanders poppies grow;

The larks, with hearts undaunted, sing,

And rich in hope, their music fling

Where guns have scattered death below.

Men call you dead; ye are not so,
For you the Unsetting sun will glow;
Your deeds will kindred souls inspire
And fill with patriotic fire;
Grief on your graves her tribute lays,
And gratitude her homage pays,
And Love, with proud, yet wistful eye,
Keeps vigil, where ye sleeping lie.
In Flanders fields.

Still more now is your fight our own,
The torch that from your hands was thrown
Shall not be quenched, but held on high,
The faith ye teach us shall not die.
Then take your rest in slumber deep,
Doubt not that we the tryst will keep,
Nor dream that ye in vain have died,
FREEDOM shall not be crucified;
Through summer shine and winter snow
Sleep, where the drowsy poppies grow.
In Flanders fields.

"University Magazine."

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BRITANNIA VICTRIX

(By Robert Bridges; in the 'Times', London). Careless wast thou in thy pride, Queen of seas and countries wide, Glorying on thy peaceful throne:-Can thy love thy sins atone? What shall dreams of glory serve, If thy sloth thy doom deserve, When the strong relentless foe Storm thy gates to lay the low?

Careless, ah! he saw thee leap Mighty from thy startled sleep, Heard afar thy challenge ring: 'Twas the world's awakening.

Welcome to thy children all Rallying to thee without call Oversea; the sportive sons From thy vast dominions! Stern in onset or defence, Terrible in their confidence.

Dauntless wast thou, fair goddess, Neath the cloud of thy distress; First and mirthful wast thou seen In thy toil and in thy teen; While the nations looked to thee, Spent in world-wide agony.

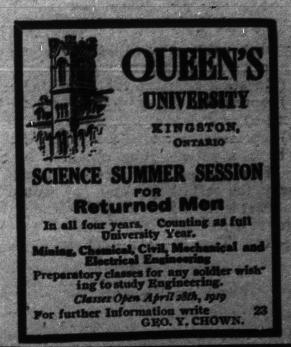
Oft, throughout that long ordeal Dark with horror-stricken duty, Nature on thy heart would steal Beckoning thee with heavenly beauty, Heightening ever on thine isle All her seasons' tranquil smile; Till thy soul anew converted, Roaming o'er the fields deserted By thy sorrow sanctified, Found a place weherin to hide.

Soon fresh beauty lit thy face, Then thou stood'st in Heaven's high grace:-Sudden in air on land and sea Swell'd the voice of victory.

Now when jubilant bells resound And thy sons come laurel crown'd, After all thy tears of woe Thou no longer canst forego, Now thy tears are loos'd to flow.

Land, dear land, whose sea-built shore Nurseth warriors evermore, Land, whence Freedom far and lone Round the earth her speech has thrown Like a planet's luminous zone,-In thy strength and calm defiance Hold mankind in love's alliance.

Beauteous art thou, but the foes



Of thy beauty are not those Who lie tangled and dismay'd: Fearless one, be yet afraid Lest thyself, thyself condemn In the wrong that ruin'd them.

God, who chose thee and unpraised 'Mong the folk, (His name be praised!) Proved thee then by chastisement Worthy of His high intent, Who, because thou could'st endure, Saved thee free and purged thee pure, Won thee thus His grace to win, For thy love forgave thy sin, For thy truth forgave thy pride, Queen of seas and countries wide, He who led thee still will guide.

Hark! thy sons, those spirits fresh Dearly housed in dazzling flesh, Thy full brightening buds of strength, Ere their day had any length Crush'd, and fallen in torment sorest, Hark! the sons whom thou deplorest Call;—I hear one call; he saith: 'Mother, weep not for my death! Twas to guard our home from hell, Twas to make thy joy I fell Praising God, and all is well. What if now thy heart should quail And in peace our victory fail! If low greed in guise of right Rout and rive thy gather'd might, And thy power mankind to save Fall and perish on our grave! On my grave, whose legend be Fought with the brave and joyfully Died in faith of victory. Follow on the way we won!

Thou hast found, not lost thy son.

QUESTION BUREAU

(1) For what value of x will the expression x - 3cx + 2c x + 5c be a perfect cube?

(Question 22, page 225, Algebra)
Let (a) represent . . . x³+3cx²+2c²x+5c³

Now $(x+c)^3 = x^3 + 3cx^2 + 3c^2x + c^3$ Let (b) represent . . $x^3 + 3cx^2 + 3c^2x + c^3$

Now (b) is a perfect cube obtained by cubing, x+c. If (a) were a perfect cube obtained in the same way the results (a) and (b) would be the same. That is the difference of (a) and (b) would be zero. Substract (b) from (a). Result: -c*x+4c*. That is:-c*x+4c*=0

or
$$c^{\alpha}x = 4c^{\alpha}$$

$$\frac{4c^{\alpha}}{c^{\alpha}}$$

(2) Find the value of y for which $x^{2}-2(a-y)x-y^{2}$ is a perfect square.

(Question 14, page 226, Algebra).

If $x^2-2(a-y)x+y^2$ were a perfect square, then extracting the square root there would be no remainder, or the remainder would be zero. Expand and extract square root.

$$x^{2}-2ax+2yx+y^{2}|x-a+y|$$

$$x^{2}$$

$$-2ax+2yx+y^{2}$$

If the expression is a perfect square

$$y = \frac{a^2}{2a} = \frac{a}{2}$$

To prove that if $y = \frac{a}{2}$ the expression is a perfect

square.

Substitute
$$\frac{a}{2}$$
 for y, in $x^2-2ax+2yx+y^2$

Then expression becomes $x^2-2ax+ax+\frac{a^3}{4}$

$$=x^2-ax+\frac{a^2}{4}$$

$$= \left(x - \frac{a}{2}\right) \left(x - \frac{a}{2}\right)$$

But these factors are equal. Therefore one of them, $x = \frac{a}{2}$, is the square root.

Note.—By using the same reasoning, this method could be applied to Question (1), first extracting cube root, etc.

(3) What per cent. payable half yearly is equivalent to 10 % payable yearly.

(H. S. Arithematic, question 18, page 183) Let \$1 be the principal in each case.

Then amount of \$1 for 1 yr. at 10 % is \$1.10. Let r be rate payable half yearly; then amount

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of \$1 for 2 payments at r % is $\left(\frac{r}{100}\right)^2$

But by conditions the two amounts are equal.

Then $(\$_1 + \frac{r}{100})^9 = \$_{1.10}$

Squaring: $1 + \frac{r}{50} + \frac{r^2}{10000} = 1.00$

Clearing: 10000+200r+r2=11000

Transposing: r²+200r=1000

Solve this quadratic by completing the square and extracting sq. root of both sides.

Then r+100=104.88Whence r=4.88.

Note.—In all the above no attempt is made to find the easiest or shortest solution, but to give the teacher help in teaching.

BOOKS RECEIVED

HUMAN GEOGRAPHIES, Books I., II. and III. Prices—1-6, 1-6, 1-9. Published by Messrs. George Phillip & Son, Ltd., 32 Fleet St., London, E. C. 4, England. These books are bound in stiff paper covers, printed in good type, on excellent paper and well illustrated.

THE ROUND TABLE, a quarterly review of the politics of the British Commonwealth. The March number contains articles on America and World Responsibility; Bolshevic Aims and Ideals—its Origin, Leaders, Aspirations, etc.; the Position of the Union Government in

Canada; and chapters on matters relating to The United Kingdom, Australia, South Africa and New Zealand. Price 65 cents per copy, \$2.50 per year. Sold by all booksellers.

THE TEACHER'S BOOK OF NATURE STUDY, Vol. III. This excellent book contains much valuable matter about Plant Life and Animal Life (including Birds and Insects), together with some of a more general character. Published by Evans Bros., Limited, Montague House, Russell Square, London, W. C. 1, England.

Thousands will welcome the new 1919 Edition of "5000 Facts About Canada," edited by Frank Yeigh, the well-known writer and lecturer on the Dominion. The book-let is a unique annual epitome of the trade, finances, manufacturing marine, agricultural, dairying, mining, foreystry and other facts, and a striking revelation of our national growth in a year. An extra valuable feature this year is the chapter on War Facts, containing the authorative totals that people want to know, and that tell of Canada's part in the War in condensed form. In fact, this

popular publication has been well termed a pocket cyclopedia of Canada, or the Dominion in a nutshell. Copies may be had from leading newsdealers or by sending 25 cents to the Canadian Facts Publishing Co., 588 Huron Street, Toronto.

NATURE STUDY HINTS, by L. A. DeWolfe, M. Sc., Director of Rural Science for Nova Scotia, Truro, N. S. Part of the book is a reprint of articles previously written for the Educational Review. This book, the author says, is for Nova Scotia teachers, but the variety and excellence of the material it contains makes it a valuable book for any teacher interested in Nature Study.

LEAFLETS issued by the Dominion Educational Committee of The Navy League of Canada, Toronto. No. 1, Policy of the Navy League of Canada, by Aemilius Jarvis; No. 2, What Canada owes to the British Navy, by Hon. Sir Charles Hibbert Tupper; No. 3, The Heroic War Work of the Merchant Marine, by Sir Robert Falconer, K.C.M.G., LL. D., D. C. L.; No. 4, The British Navy and World Freedom, by Hon. Benjamin Russell, M.A., LL D.; No. 5, The British Navy in History, by J. Castell Hopkins, F. S. S., F. R. G. S.

PROVINCE OF NEW BRUNSWICK

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The Rural Science School for Teachers will convene in the Agricultural School Building, Sussex, at 2 o'clock in the afternoon of Tuesday, July 8th next. Class work will begin at once. In the evening of the same day opening exercises of more than usual interest will be carried out.

The full course of study at this school occupies two Summer Sessions with, an interim Winter Reading and Experimental Course, embracing private study, observation and experimentation.

The Summer Course includes: 1—Chemistry of Soil, Plants and Animals; 2—Physical Nature and Environment; 3—Nature Study of Animals; 4—Plant Life and School Gardening with School and Home Project Work; 5—Method and Management of Nature Study and Agriculture subjects in co-relation with other school subjects in the Public School Course of Instruction and the Regulations and Rules made by both departments governing the same. No options.

Demonstrations in special subjects allied to the regular course will be given from time to time throughout the course by instructors not on the regular staff.

Satisfactory completion of the course entitles teachers to receive certificates of competency.

Teachers actually engaged in the public schools of New Brunswick are eligible for admission free of charge for tuition.

Teachers who propose to attend Second Year Classes are required to present themselves for examination on the Winter Reading and Experimental Course at 10 o'clock in the forenoon of opening day.

Transportation one way over railway lines from home to school. First class ticket will be paid by the Department of Agriculture. Teachers should therefore purchase return tickets.

For further information apply to

R. P. STEEVES, Director, Sussex, N. B.

ANNUAL SCHOOL REPORTS

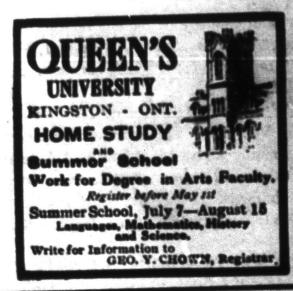
The annual report of schools for N. B. for 1917-1918 shows that the year educationally was a good one. The number of schools was about the same as for the preceding year in spite of the scarcity of teachers. The number of pupils enrolled within the year was 71782, a decrease of 199 from the figures of the previous year. Total Government grants to teachers for the year amounted to \$202,-855.66—\$1,898.19 less than for the preceding year. The total approximate cost of the public schools for hte year, including moneys from Government grants, district and municipal assessments, was \$1,314,746. Teachers' pensions for the year amounted to \$8,775.73. The inspectors refer to the shortage of teachers, caused chiefly by the war taking most of the males, and the exodus to the west, caused by the higher salaries prevailing there.

Chief Superintendent Carter in closing his report, recommends the appointment of Parish School Boards; county funds to be raised from 30 to 60 cents per capita; and a survey of the province for consolidation purposes.

The Annual Report of the Superintendent of Education of Nova Scotia for year ending July 31, 1918, contains much valuable and interesting matter relating to education in that province, including among others reports of the Director of Rural Science, the Nova Scotia Technical College, School Book Bureau, College of Agriculture, the Victoria School of Art and Science, and twelve school inspectors.

All text books prescribed for use in the Common and High Schools grades of the N. S. Schools are supplied direct from the School Book Bureau. For the fiscal year ending September 30, 1918, the receipts from books were \$45,409.11; expenditures \$42,998.73. The largest number of pupils enrolled was 107,930—894 less than for corresponding period of the preceding year. Teachers' salaries on the average showed very slight increases over those of the preceding year. Technical education cost \$54,288.85. Provincial grants to 3,037 teachers of all classes, \$256,970.30. The total Government expenditure for education during the year was \$439,-208.68. The municipal rate of taxation has been raised by the legislature from 35 cents per capita to 50 cents.

In closing his report Superintendent MacKay says: "The patriotic tone of the schools as a whole, trustees as well as teachers and pupils, merits acknowledgment. No complaints were heard on account of the extra work thrown upon the schools from the beginning of the war. All threw themselves heartly into the development of a knowledge of the conditions of public affairs with a determination to do the utmost possible to strengthen the cause of the Empire in home and world affairs. They started with the Nova Scotia Belgian Relief fund, followed fast by the other numerous funds in train; led in the glorious cru-



sade to raise the first Nova Scotian Highland Brigade, and in the Victory Loan drives; excelled in the increased production and food conservation movement; raised the largest percentage of soldiers of the soil; and now are with a swing booming the Thrift cult, studying the economics of War Stamp Savings, and investing to their mutual benefit in the funds of their own country."

A THRIFT PLAN FOR YOUR CHILDREN

Were you ever in possession at the age of six of a penny that you earned? Do you recall what a sacred coin it was? How much more valuable that the penny that was given you? Pass the lesson along. While your children learn thrift, let them earn it. Make it a game. Offer a bonus to the biggest saver every month. Offer to double savings that reach a given amount in a given time. Print the rules on a sheet of paper and post it by the banks. Suggest ways of earning pennies. If your children have allowances, offer to add a specific amount to the sum saved each week—5 cents for the 10 cents saved, 10 cents for 20 cents saved, 15 cents for 30 cents saved, and so on. And keep it up.

THRIFT TEACHES THE VALUE OF MONEY

A dime to many a Canadian child does not mean two nickels, or ten pennies—but two sodas. Money to Young Canada has value only as it buys something—right away. To earn simply to spend is not so wholesome by far as to earn to have. Earn a living and learn to live.—Official Paper.

CAN YOU SAY "NO"?

(By Sir Roger Stout, Chief Justice of New Zealand).

There is a little word of two letters that is one of the first words that a child learns to say, and yet at times it is the hardest of all words to say. Is not that curious? The little word is "No." How is that? Any little boy or girl can spell "No" and say "No," but can a boy or girl always say "No" when it ought to be said?

A great number of men and some women come before me in the Court and on the Prisons Board, and most of them have been unable to say "No." Sometimes when they see other people's money left unguarded they take it—that is, steal it. They are unable to say "No." At other times they do wrong things because they cannot say "No."

We say that any one who is able to say "No" when it ought to be said has self-control. A boy or girl who can say "No" has control over himself or herself. You know what the big word "temptation" means. It is a fine day, and you are sent with a message, and instead of taking the message quickly you loiter by the way. You wish to hear a band play, or to see something in a shop-window, or the soldiers are marching past and you wish to look at them, and so you do not carry your message quickly, for you have not said "No" to your wishes. You have given way to temptation and shown that you are not able to control yourself.

Or again, for instance, another boy asks you to go with him to a place where you ought not to go, or to do something wrong. You know it is wrong, but again you cannot say "No," and you do what he asks you. It is said you are led astray. Hundreds of men are in prison because their love of pleasure, or of intoxicating drink, or of getting money led them astray. They could not say "No." They did wrong and never thought of what would happen: they had no self-control.

Now, boys and girls, you all wish to be happy, to be good citizens, and to get on in life. There is nothing wrong in trying to be happy, in striving to be good, and in desiring to get on in the world—to be "healthy, wealthy, and wise"—but you will not be happy or good or get on in the world if you cannot say "No" at the right time. Before you do anything ask yourself the question, "Is it right?" Let none of your feelings or wishes, or, as they are sometimes called, passions, control you. You must control yourself. It is perhaps hard to do so, but you must try, try, and try again till you are masters of yourselves.

A very old poet—he lived in the end of the sixteenth century and the beginning of the seventeenth century (from 1568 to 1639)—has pictured to us "a happy life," and I quote you the first and last verses of his short poem. He said,—

How happy is he born and taught
That serveth not another's will;
Whose armour is his honest thought,
And simple truth his utmost skill.

This man is freed from servile bands
Of hope to rise or fear to fall:
Lord of himself, though not of lands,
And, having nothing, yet hath all.

This was Sir Henry Wotton's description of "a hap-

py life." Robert Burns knew the good of self-control, but spoiled his life for lack of it. He said,—

Prudent. cautious self-control Is wisdom's root.

It is the foundation and the beginning of wisdom. Do you wish to be happy? Be able to say "No" and to control yourself. Do you wish to be wise? Learn to say "No" when you are tempted to do wrong. Do you wish to become good citizens and to be of service to your country? Do not be afraid to say "No" if you are asked or feel inclined to do anything that is wrong. All of us need to exercise self-control and self-denial. You know what self-denial means: it signifies denying ourselves some present pleasure for our own future benefit or to help or benefit others. This habit of self-denial strengthens the character of those who practise it. Without self-control and self-denial you cannot be useful or good citizens

If you learn to control yourself; if you can think before you act; if you can say "No" to any and every wrong or evil suggestion, you will have secured for yourself the respect of your companions, and shown that you have succeeded in overcoming the temptations and weaknesses which lead astray many people, old and young, and prevent them from doing their duty to their neighbours and their country.

THE IRISH CLAIM ROBIN ADAIR

It is a pretty safe venture to affirm that the great majority of us have always considered "Robin Adair" a Scotch song. It was so listed in numerous folios. But now, unless otherwise proved, we have to accept the claim that the piece is really of Irish origin. Reference books on music credit its composition to an Irish harper O'Daly, who is said to have loved a colleen, Ellen O'Cavanagh. But her family objected. After a necessary absence, O'Daly came home to find his sweetheart forced by her parents to promise to marry another man.

The disturbed lover composed a new air Eileen Aroon, claimed to be the melody of "Robin Adair," and, at the wedding festivities, at the bride's request, he played the new air while under the disguise of a harper. Eileen recognized in the supposed travelling musician the person of O'Daly and eloped with him that night.

This melody was printed, it is said, as an Irish air as early as almost two hundred years ago, but later appeared in collections of Scotch songs. It was the custom in those days of wandering Irish musicians to take trips to Scotland and that is perhaps how the air was introduced to Scotland. However, there is no need for controversy over the origin of "Robin Adair," for it is a good song we can all enjoy in any land.

It is a folk song that is wider than any national boundaries.

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QUESTIONS ON SCOTT'S TALISMAN

Winnifred M. McGray

- 54. Write a brief character sketch of Berengaria? How old was she? How long a time did she spend in England? Where was her home? When did her charms fail to influence her husband? When did they have a great influence over him? Account for this in both cases. How did Berengaria show her concern over her husband's illness? What vow did she make if Sir Kenneth should be killed? What did Edith think of this vow?
 - 55. Describe Berengaria's visit to Richard.
- 56. What were the conditions of the treaty that Saladin was willing to make with Richard? How did Richard feel about these conditions? Edith? Sir Kenneth? Others? What were the conditions of the treaty actually concluded?
- 57. Describe Richard's reception at the Council and quote his speech. What effect did it have on those who heard it?
- 58 Name the different ones blamed for Sir Kenneth's leaving his port on St. George's Mount. By whom were the different ones blamed? Who was the real culprit? In what way? In the end who got all the blame? Of what was he guilty? How was he punished?
- 59. Tell in your own words of the attempt made to assassinate Richard. Who frustrated it? How? What was the result?
- 60. Quote Scott on the habits of a spider and of a lion. Quote Sir Kenneth on swimming; Saladin on his horses; Richard on dogs. Quote from Shakespeare's Sonnets few lines on a horse.
- 61. Describe Richard's sword and that of Saladin. Tell in your own words the feats of dexterity practised by Richard and Saladin.
- 62. Describe the Moslem summons to prayer at sunrise and the response. How often is this referred to in the novel?
- 63. What did Saladin think of the Templars? Describe the escape of the party of Saracens from the soldiers of the Temple.
- 64. How was the thief of the banner of England discovered? Describe the scene that took place when the Princes came to St. George's Mount to do honor to the flag.
- 65. Write notes on: Sir Tristrern; Blondel; the great romance of King Arthur; Excalibar of King Arthur.
- 66. What part of a poem is the argument; the fytte; What is meant by Alexandrines? What adjectives are applied by Richard to Alexandrines? What, according to Richard, do they sound like? To what does he compare the briefer measure? Quote examples of both from Scott's own poems.

- Explain: ghittern; touched his rote; bear burden with shrill unnatural voices.
- 67. What jewels did Saladin wear? Compare as to value with the jewels of the English Crown. What was the Sea of Light? Names of any other famous jewels. What part does Edith's ring play in the story? What kind of a ring was it?
- 68. Describe the meeting between King Richard and Saladin. Why are we not present when Sir Kenneth and Saladin meet? How do we know about it?
- 69. What led to the Nubian's detection? How does Richard show that he has penetrated the disguise? When did you know who the Nubian was? Who else discovers his identity?
- 70. Describe the Trial by Combat. Name of another of Scott's novels in which there is a trial by Combat.
- 71. Who was the Knight of the Leopard? Account for his remaining in disguise for so long? Who found out his real name and title? How? What was the result of the knowledge?
- 72. Write a character sketch of Richard, setting forth his good and bad qualities.

Do the same for Saladin and compare the two.

- 73. Collect all references to the name Plantagenet.
- 74. Who was taken for a Spaniard? Why? Of what were mirrors made at this time? Who observed that "they who humbled themselves had been exalted with a vengeance"? Explain the meaning of this remark. To whom was it made? Who was the Ulysses and who was the Achilles of the Crusade? Explain the aptness of these titles. Who spoke the language of one? Whose courage is spoken of as "glow-worm courage"? Who used the expression? How did one of the characters say "I was about to go to bed." What admirable recipe against ennui did Queen Berengaria bring back from her pilgrimage? With what Oriental greeting did Adonbecel Hakim salute the Bishop of Tyre? What riddle did Sir Kenneth give to the Saracen? When is this again referred to? Quote what the Saracen says about What was considered the highest honor of Christianity? What was the Eastern people's opinion of laughter? What was the priest's prophecy about Richard? How did itwork out? How did Saladin say that a man was dumb? Richard? In what respect were Richard and Henry VIII alike? What relation were they? How do the inhabitants of the East enjoy storytelling? Which is the more difficult to win from themtears or laughter? How about a modern Canadian audience Describe the towels used by Sir Kenneth when the guest of Saladin. What country is called the amphibious republic? (Explain). To what strange use were carpets put? Describe some of the niceties of Eastern

cookery. Quote Saladin on hospitality. What themes belong to youthful warriors? Who said so.

75. What is the central thread of "The Talisman"?
The subordinate ones? Show how each subordinate plot contributes to the main plot.

76. What is the complication? Where is the climax? The denoument, the crisis, the catastrophe? About what proportion of the book is given to each? Explain these terms.

77. Discuss the following comment on Scott's women by Ruskin, showing how it fits the character of Edith Plantagenet: "We find in all a quite infallible sense of dignity and justice, a fearless instant, and untiring self-sacrifice to even the appearance of duty, much more to its real claims; and finally, a patient wisdom of deeply-restrained affection, which does infinitely more than protect its objects from momentary error; it gradually forms, animates, and exalts the characters of the unworthy lovers, until at the close of the tale we are just able, and no more to take patience in hearing of their unmerited success."

NATURE WORK IN SCHOOLS

Nature work should be informal. When one outlines a list of topics and tries to follow that list, one has ceased to be a teacher, and has become a machine. There are too many "machines" trying to teach now. Get away from the mechanical. Be natural.

If a boy brings in a butterfly today, have a lesson on it. If he brings a fungus tomorrow, a lesson on that is in order. To be sure, the butterfly and the fungus are not closely related; but they may be found side by side in the field. If they accidentally be found together, why can we not study them together?

Nature study is not the classification of objects according to evolution or according to relationships. That is a science, which follows later.

But the one who has never learned to see things in the field is not satisfied with these generalities. She wants to be told what to look for. I'll suggest therefore a few things to watch for and have the children watch for.

One of the first things of spring is the bird migrations. In connection with that, discuss why birds migrate, and where they go. Why do they not all migrate? Some remain with us the year through. Is it a matter of cold or lack of food that drives them south in the fall? Why do they probably return in the spring. Read about migration in some good Bird Book.

Learn to identify the birds as they come in the spring. Keep a record of the dates of their appearance. Try to find out their proper names. Don't continue to call all sparrows "little grey birds." Don't call the Junco "the bluebird." Find out what they eat, where and when they nest, and anything else about their habits.

Watch for the first butterflies, houseflies, and other insects. Where did they spend the winter? The earliest butterfly will probably be the Mourning Cloak. It slept through the winter in the adult form. Some say house-flies do the same; others dispute it. Can your children settle the question? Comparatively few insects, however, do this. Look for cocoons and insect eggs. Read about life histories of insects in some good Insect Book. Then try to find the things you read about. Possibly you can discover a few details the book did not mention.

Snakes, frogs, toads and salamanders also afford good subjects for study. Where and how did they spend the winter? Find tadpoles (pollywogs) of as many sizes as you can. Bring frog's or toad's eggs into the school room and watch them hatch.

Minerals can be studied at all times. There is no more reason for studying them in the spring than at any other season except that building operations may suggest a reference to them. For example, cement, concrete, mortar, brick and slate might lead to a study of the gravel of a river bed, limestone, clay, etc. Besides, every country boy goes fishing in the spring. When he ties a stone on his line for a "sinker," would it be wise to find out all one could about that stone? If he uses tea-lead, that will stand inquiry too.

Farm animals are always interesting. In spring, however, the young lambs, pigs, calves and chickens give an added interest.

Fur-bearing animals are the centre of interest in these provinces. Let your boys find out all they can about rearing them in captivity.

Garden operations offer a very large range of topics. Removing the winter covering from strawberries and perennial flowers; the digging of the ground; the making of hot-beds and cold-frames; the importation of fruit-trees; grafting and pruning; seed-planting— these and dozens of similar topics will suggest themselves to the wide-awake teacher. Possibly she does not know much about them; but if she is really anxious, she'll find out something of value. If she is not anxious, her boys will probably play truant.

Study the spring awakening of plant life. Watch the swelling and unfolding buds. What is in them? What are the ten earliest flowering plants in your section? How many of them grew in the woods? What are the five earliest flowering forest-trees?—L. A. DeWolfe, M. Sc., in Nature Study Hints.

TEACHER WANTED

A Second Class Teacher, one able to teach French preferred, for District No. 9, Alnwick. Apply, stating salary, to JOSEPH T. ROSS, Secretary to School Trustees, Covedell, Northumberland Co., N. B.

N. B. TEACHERS' ASSOCIATION

A meeting of the Executive of the New Brunswick Teachers' Association was held in Fredericton Monday and Tuesday, the 21st and 22nd ult.

There were present Dr. B. C. Foster, Fredericton; Inspector F. B. Meagher, Woodstock; Principal W. McL. Barker, Sussex; Principal J. D. Keane, Newcastle; Principal W T. Denham, Bathurst; Principal W. C. Haines, Chipman; Miss Bernice MacNaughton, Andover, Miss Stella T. Payson, St. John; Miss Isabelle Thomas, St. Stephen; A. S. McFarlane, Normal School.

Graded schools. In all Graded schools of two departments, other than those scheduled, the minimum salary of a principal, holding a first class license, shall be \$600. It was recommended that first class teachers accepting positions in schools other than those for which a schedule was adopted should not accept a salary of less than \$400 per annum from the trustees.

The schedule drawn up for the various schools does not effect the present incumbent (That is, he may continue to teach for his present salary irrespective of the amount which the schedule provides a teacher filling his position should receive) but a teacher accepting a new position is pledged not to accept the new position at a salary below the schedule. This will give the present encumbent a leverage by which to have his salary increased.

W. McL. Barker was appointed to represent the teachers on the commission authorized under recent legislation to investigate matters relating to increased grants to teachers.

A resolution was passed urging the Board of Education not to grant the request of the petitioners to have the requirements for Grammar School License lessened.

The membership of the Association is well on to 400.

SCHOOL AND COLLEGE

The Halifax Relief Commission has recently established in one of the public schools of Halifax a so-called Sight Saving class. This class aims to conserve the vision of children by supplying special books and apparatus for their use. Many children with defective sight in large classes are overlooked and consequently fall behind to an alarming degree. Several children in this class who had made little progress for several years past are now making the progress of a normal child.

Inspectors McFarlane, Meagher and Hebert, have appointed Friday, May 16th, as Arbor Day in their inspectorates; in the districts of Inspectors McLean, O'Blenes and Hanson, May 9th will be observed for this purpose

An outbreak of smallpox has occurred in the Parishes of Sackville and Dorchester, causing the closing of the

schools there. All the school children have been vaccinated. The health officials report the disease under control.

The Executive Councils of the Alumni and Alumnae Societies of Mount Allison University, with the cordial endorsation of the Board of Regents, recently passed a resolution that an effort should be made to erect a library as a memorial to the loyalty and heroism of Mount Allison men and women in the war. On the walls will be tablets inscribed with the names of all the Mount Allison men and women in the King's service, and emblazoned in some special way the names of the sixty who gave their lives for the Empire. The estimated cost of the Library is \$50,000. One friend of Mt. A. has given a subscription of \$1,000.

In the Easter vacation a convention of second and third class teachers was held in the Aberdeen School at Moncton to organize a union of those not included in the New Brunswick Teachers' Association.

The Assembly Hall of the County Academy was crowded last night by the students and friends of the Technical College, who attended the closing exercises of that institution. Addresss wre delivered by Mayor Hawkins, who acted as chairman; Dr. A. H. MacKay, G. A. Redmond, chairman of the School Board; Controller Findlay, S. A. Morton, Principal of the County Academy, and Professor Sexton, W S. Davidson, Vice-President of the Board of Trade, presented the prizes offered by that body to the students in each class who made the greatest progress during the year.

Those who won prizes are as follons:
Practical English and Arithmetic—Leonard Hilton.
Practical English and Arithmetic—Alice Hilton.
Practical English and Arithmetic—Arthur Bamford.
Practical Mathematics—Ernest Page.

Single Entry Bookkeeping—Kenneth Robb

Double Entry Bookkeeping—Sergt. Russel E.
Lohnes.

Dressmaking I.—Gussie Lovett.
Dressmaking I.—Florence Chisholm.
Dressmaking II.—Lizzie Langille.
Dressmaking II. (Community House)—Mrs. A.

Dressmaking II.—Mary M. Robertson.

Millinery I.—Lillian Covey.

Millinery II.—May Ward.

Architectural Drawing—A. McArthur.

Building Construction Drawing—Reid Gibbons.

Mechanical Drawing—George Colquboun.

Machine Drawing—M. Lietch.

Elementary Electricity—Charles A. Stewart.

Dynamo Electric Machinery-L Taylor.

Surveying-Gerald N. Allen.

Auto Maintenance and Repair-H. K. Verge.

Auto Maintenance and Repair-S. G. Parker.

Auto Maintenance and Repair-C. A. Canavan.

Auto Maintenance and Repair-H. Townsend.

Auto Maintenance and Repair-A. Ray.

Machine Tool Operation—G. Osborne and D. Horne.—The Acadian Recorder, Halifax.

The plans and specifications of F. N. Brodie, of St. John, for a large building at the west end of Moncton have been accepted by the school board. The Monctonians have decided to call the new structure the Edith Cavell Memorial School.—Daily Telegraph.

The closing exercises of the College of Agriculture were held on Thursday afternoon, beginning at 2.30 o'clock. Owing to the severe storm the attendance of townspeople was not large.

Principal Cuming presided and delivered a short address.

The prize winners were: Governor-General's Medal for highest standing in the Senior class, Philip Bishop, Greenwich, P. E. I.; cup for highest standing in seed judging. Douglas Archibald, Newton, Guysborough County; E. H. Cox prize of \$5 worth of books for highest standing in subjects relating to care, feeding and management of live stock; Senior class, Harold W. Colpitts, Lewisville, N. B.; Junior class, George Wood, Carter's Point, N. B. Seventeen students were graduated at this time—From the Colchester Sun.

F. B. Meagher, M. A., Inspector of Schools for Carleton and Victoria counties, N. B., was in Fredericton on the first day of May.

Lieut. Roland Murray, who was instructor in Manual Training in the Normal School, Fredericton, before going overseas, will shortly leave here for the West, where he intends to locate.

. Lieut. Hayward C. Kinghorn, B. Sc., and Lieut. H. S. Laughlin, B. Sc., have accepted positions with the New Brunswick Forestry Department.

Miss Jean B. Peacock, Household Instructor in the Normal School, Fredericton, has resigned her position, to take effect at the end of June.

A COMMON EXPERIENCE

Old Gentleman.—"Well, John, what do you like best about school?"

Johnny.-"Goin' home."

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CURRENT ITEMS PREMIER MURRAY ILL

Premier Murray has been indisposed for the past three weeks. He left Ottawa on Friday for a trip to the southern states in the hope that he may be able to recuperate.—The Colchester Sun.

A heavy snowstorm prevailed in Britain on the night of April 26th, covering the ground to a depth of from four to six inches. Telegraph and telephone lines suffered severely. In London 5000 telephones were put out of service. Much loss was occasioned to the spring crops and young lambs.

The N. B. Legislature prorogued early on the morning of the 18th of April.

Italy's representatives at the Peace Conference at Paris have withdrawn because of the refusal of the Commission to give Fiume to Italy.

The German representatives have arrived at Versailles. They will have fifteen days to consider the terms of peace as submitted to them by the Peace Commission before they sign it.

New Brunswick School Calendar

1919

FIRST TERM

July 1st-Dominion Day.

July 1st-Normal School Entrance and Matric. and Leaving Exams, begin.

July 14th-Annual School Meeting.

Aug. 6th-French Department of Normal School opens.

Aug. 26th-Public Schools open.

Sept. 1st-Labor Day (Public Holiday).

Sept. 2nd-Normal School opens.

-Thanksgiving Day (Public Holiday)...

Dec. 9th-French Dept. Normal School Entrance Exams

Dec. 16th—Third Class License Examinations begin.

Dec. 19th-Normal and Public Schools close for Xmas. Holidays.

1920

SECOND TERM

Jan. 5th-Normal and Public Schools re-open after Xmas.

April 8th—Schools close for Easter Holidays.

April 14th—Schools re-open after Easter.

May 18th—Loyalist Day (Holiday, St. John City only).

May 21st—Empire Day.

May 24th—Last day on which Inspectors are authorized to receive applications for July Examinations.

May 24th—Victoria Day. (Public Holiday).

May 25th—Class III License Exams begin (French Dept.).

June 3rd—King's Birthday. (Public Holiday).

June 4th?-Normal School closes.

June 8th—License Examinations begin.

June 21st—High School Entrance Examinations begin.

June 30th—Public Schools close.

N. B. OFFICIAL NOTICE

The Board of Education has given authorization to teachers and pupils of the public schools, to co-operate with the National War Savings Committee in the sale of Thrift Stamps and in such propaganda work as may be outlined by that Committee.

A War Book, showing the importance and need of saving, has been sent out to the teachers and pupils, who are earnestly requested to do their utmost to promote the aims of the Committee.

Teachers are requested to carefully read the introduction. It will there be noted that the war book is a text book and some time must be given to it each school day. Thrift Stamps are not for children only, but for every man and woman in the community who can be induced to

Teachers and pupils can render great service by making known the contents of the War Book to all.

Teachers may act as treasurers for the money contributed for Stamps, and it is expected, will purchase them for any who may desire them to do so.

W. S. CARTER.

Chief Superintendent of Education.

Education Office, Fredericton, N. B., Dec. 26th, 1918.

OFFICIAL NOTICE

As the last teaching day of the present year falls up-on Monday, permission has been given by the Board of Education to substitute any Saturday in June for the last

teaching day in June.

From and after July 1, 1920, students will not be admitted to the Provincial Normal School under the full. age of seventeen years.



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OFFICIAL NOTICE

New Brunswick School Calendar

1918 - 1919

1919 SECOND TERM

May 19—Observed as Loyalist Day in St. John Schools only

May 23-Empire Day.

May 24—Last day on which Inspectors are authorized to receive applications for July Examinations.

May 26—Observed as Victoria Day. (School Holiday).

May 27—Class III License Examinations begin (French Dept).

June 3—King's Birthday. (Public Holiday).

June 6-Normal School closes.

June 10-License Examinations begin.

June 16—High School Entrance Examinations begin.

June 27-Public Schools close.

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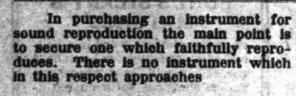
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