Third War Number (Second Series)

# The School

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In future, however, the Manuals must be purchased by Boards of Trustees and others as follows:

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Toronto, February 1st, 1916.

## Ontario Department of Education

# Teaching Days for 1916

High, Continuation, Public and Separate Schools have the following number of teaching days in 1916:

May 22	August
122	(High Schools, 79)       80         Total.       202         Total, High Schools.       201

#### DATES OF OPENING AND CLOSING

Open3rd January	Close20th April
Reopen1st May	Close29th June
Reopen1st September	Close22nd December
Reopen (H. Schools) 8th Sept.	

Note—Christmas and New Year's holidays (23rd December, 1916, to 2nd January, 1917, inclusive), Easter holidays (21st April to 30th April inclusive), Midsummer holidays [from 30th June to 31st August (for High Schools to 4th September), inclusive], all Saturdays and Local Municipal Holidays, Dominion or Provincial Public Fast or Thanksgiving Days, Labour Day [1st Monday (4th) of Sept.], Victoria Day, the anniversary of Queen Victoria's Birthday (Wed., 24th May), and the King's Birthday (Saturday, 3rd June), are holidays in the High, Continuation, Public and Separate Schools, and no other days can be deducted from the proper divisor except the days on which the Teachers' Institute is held. The above-named holidays are taken into account in this statement, so far as they apply to 1916, except any Public Fast or Thanksgiving Day, or Local Municipal holiday. Neither Arbor Day nor Empire Day is a holiday.

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A Magazine devoted to Elementary and Secondary Education in Canada

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# The School

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#### **Editorial Notes**

The Honour Roll.—The School's Honour Roll grows apace. Canadians of all classes are responding freely to the call of the Minister of Militia for 500,000 volunteers for overseas service. The response of the schoolmasters, the men who teach patriotism, has been quick and generous. And the Minister of Militia, himself a former schoolmaster, has known how to utilize that response. Schoolmasters are trained to command. Many of them are experts in military drill. In larger numbers proportionately, perhaps, than any other class the schoolmasters have become the officers of the new Canadian army. The patriotism they have taught in the abstract in the schoolroom they will now exemplify in the concrete in the battlefield.

Principal Hagarty of the Harbord St. Collegiate Institute, Toronto, is a notable illustration of the relation of the schoolmaster to the war. Like Principal Snider of the Port Hope High School and Principal Michell of Riverdale Collegiate Institute, Toronto, both of whom hold high commands in the forces for overseas, Principal Hagarty has always been interested in the local militia forces and in school cadets. Indeed among Ontario teachers he is generally recognized as the father of the cadet movement in the schools. Through his cadet corps in the Harbord Street Collegiate Institute he has given many commissioned and non-commissioned officers, including his own son, to the Canadian forces in the field. It is fitting that the Minister of Militia should now commission Principal Hagarty to recruit a battalion for overseas service, and it is certain that many ex-cadets and schoolmasters will be represented in the staff and ranks of that battalion.

Alberta:—George Newbury, South Pigeon Lake School No. 1601, Wetaskiwin; Herbert Shaw, Angus Ridge School, with Edmonton battalion.

British Columbia:—A. T. Boyle, first assistant, Central Public School, Revelstoke; J. Gray, Ingram Mountain Public School; A. H. Hooper, Seymour Arm Public School; S. P. Jacquest, B.A., Principal, Superior School, Greenwood; W. Jones, B.A., Principal, High School, Grand Forks; R. W. Scott, B.A., Principal, High School, Trail; W. Walker, B.A., Principal, High School, Grand Forks.

Manitoba:—Joseph Barton, Principal, Beauséjour School; Major R. R. J. Brown, Principal Public Schools, Winnipeg; S. S. Bryan, who taught near Brandon; Major D. M. Duncan, Assistant Superintendent of Schools, Winnipeg; M. V. Jude, manual training instructor, Winnipeg; W. Plumridge, instructor of cadet band, Winnipeg; E. S. Mahon, Arrawana; Captain H. Urquhart, supervisor of physical culture, Winnipeg.

New Brunswick:—Iréneé Arseneau, Petit Rocher, with the 132nd battalion; Private Leon J. Frenette, Petit Rocher, with the 132nd battalion; Prov. Lieut. Leon Savoie, Lameque; Prov. Lieut. Theophile Fournier, Grand Anse, with the 132nd battalion; Prov. Lieut. Tranquil

Landry, Grand Anse, with the 165th battalion.

ONTARIO: - Alex. Bell, Grey County, with the 76th battalion; R. J. Blaney, Principal, Frankland School, Toronto; C. S. Carter, Lakefield; R. C. Cameron, Winchester St. School, Toronto: Major I. W. Day, Stratford Collegiate Institute, with the 110th battalion; A. W. Dunkley, M.A., Oakwood Collegiate Institute, Toronto; T. E. Daniels, Dewson Street School, Toronto; Walter Frisby, Kent School, Toronto; Principal Fydell, of York School, Toronto; E. L. Fick, Pauline School, Toronto; Nathan B. Grierson, Grey County, in signal service corps; Lieut.-Colonel E. W. Hagarty, B.A., Principal of Harbord St. Collegiate Institute, Toronto, in command of 201st battalion; Lieutenant James T. Jenkins, B.A., junior mathematical master of Oakwood Collegiate Institute, Toronto, with the 127th battalion; Geo. W. Keith, B.A., teacher of mathematics in Parkdale Collegiate Institute, Toronto; W. J. Lamb, M.A., of Harbord St. Collegiate Institute, Toronto: Lieutenant R. J. Lowry, Clinton St. School, Toronto, with the 34th battalion; Ernest J. McGirr, Grey County, with the 76th battalion; Lieut. H. W. McIntosh, Strathcona School, Toronto; P. G. Might, Principal of Lansdowne School, Toronto; Captain R. W. Nicholson of Dovercourt School, Toronto; C. C. Ramage, Grey County, with medical corps as ambulance driver; Alex. E. Stewart, Port Elgin; Lieut. Frank A. Spence. Kent School, Toronto, with the 34th battalion; W. J. Tamblyn, Howard St. School, Toronto; C. A. Vickery, Dufferin St. School, Toronto; E. H. A. Watson, B.A., specialist in English in Riverdale Collegiate Institute. Toronto; Lance Corp. Jack Wilson, Grey County, with the 48th Highlanders (wounded).

SASKATCHEWAN:—Roy E. Donaldson, Aylesbury; N. B. Eadie, Principal of Hanley School.

**Enlistment and the Schools:**—The Empire must win in its struggle with Germany. Neither farm, workshop, office, nor schoolroom must hesitate to do its bit. To the last dollar and the last man this country must be ready to sacrifice itself.

But the victory won on the battlefield will not be final. The Empire will win its last and decisive victory in the schools. The progress of the schools must not cease during the war and must be accelerated in the period of reconstruction after the war. The teachers make the schools. To safeguard the efficiency of the teachers is the first duty of the government.

With convictions such as these the Ontario Department of Education approaches the question of the enlistment of teachers, or rather of prospective teachers, in its recent circular on Enlistment in the Schools (circular 11).

Enlistment affects both the teachers now in posts in the schools and the students now in training for such posts. So far as The School has yet learned, the School Boards, who are primarily concerned, have treated enlisting teachers in a reasonable if not generous manner. In many cases they have supplemented the salaries paid by the Militia Department with bonuses. In all cases they have promised re-appointment at the close of the war.

In its circular the Department of Education, which is primarily concerned in the students in training for teaching posts, defines the relation of such students to enlistment. There are two classes of these students: (a) students now at the High Schools who intend to enter Normal Schools or Faculties of Education on passing the next ensuing Normal Entrance or Faculty Entrance examinations, and (b) students now at the Normal Schools or Faculties of Education or qualified or soon to be qualified to enter the Normal Schools or Faculties of Education. While the circular suggests that students of the first class (a) take advantage, on their return from service, of such courses of study as may be given in the local High Schools and of such financial assistance as municipalities would be amply justified in offering to returned soldiers, it guarantees them on behalf of the Department of Education a free Summer Course and examination, with allowances for travelling expenses and lodging. To students of the second class (b) it guarantees on their return not only exemption from attendance for the part (if any) of the training school session already passed in attendance but also free tuition and an allowance for travelling expenses and lodging so long as they may still be required to attend.

It is evident from the form of the circular that the Department, while anxious to be frank and generous, found it difficult to express in general terms its intentions towards all students affected. All students would not possess the same standing when they enlist, would not enlist at the same stage in the school year, and would probably not return after the war at the same time. In short the case of each enlisted student would be a special case. This fact gives special significance to the

omission of reference to the year or years during which the terms of the circular will apply, and to the somewhat indefinite provision for the re-admission of returning students to training schools "at or about the same time as that of their withdrawal". These and other conditions arising in special cases will be interpreted, the circular promises, with as much sympathetic consideration as is consistent with the educational necessities of the Province. The Department of Education could scarcely be expected to do more.

Who is to blame? It is to the credit of the inspectors that they do not hesitate to speak frankly when frank speech is in order. An Ontario inspector is reported to have spoken as follows at a recent Teachers' institute: "In my inspections I have found more dirty school-rooms, yes, fifty times over, than dirty houses. The mothers would be ashamed to allow their children to attend if they knew it. This is the fault of the teachers".

Looked at in one way this is a serious charge against the teachers in rural schools. It may mean that the schools are untidy because teachers are untidy. This in turn may mean that the early home training of teachers or the ideals of the social circles from which teachers come induce untidiness, or indifference towards untidiness. Only a careful study of the sources of the supply of teachers-in-training could disprove this phase of the charge. Or it may mean that the school life of the teachers, the life of the High School or training school, has been so strenuous on the purely intellectual side as to arrest or destroy all personal or artistic or domestic sympathies. Only a scientific study of High School and Normal School Courses could disprove this. Or it may mean that the environment of teachers in their school districts is such as to repress all enthusiasm for the neat and the orderly. The inspector's comparison of the schools with the homes refutes this.

Looked at in another way, the way in which the inspector probably looked at it, this is a charge, more or less grave, against both teachers and trustees. In isolated cases, teachers accept personally the task of 'caretaking' and call to their aid the pupils of the school. In the first instance they assume a burden which should not be borne and cannot properly be borne by the teacher. In the second instance they cast burdens upon others without the sanction of the law. It is not surprising if an inglorious failure results. In most schools the trustees appoint a caretaker from the district. Distance, preoccupation with weightier matters, the insignificance of the work and wage, and the social customs of the district limit these appointments to the boys or to the unskilled and unsuccessful seniors of the district. For the failure which results the trustees must take most of the blame. The teacher may protest

and is at fault when she delays the protest. But she must protest with discretion. An Ontario teacher protested a few years ago and, as the trustees were slow to act, she closed the school. Her resignation was requested by the indignant but delinquent trustees. But the inspector from whom we quote probably had in view, in particular, schools which were cleaned regularly in the late afternoons or early mornings and were always untidy at 4 o'clock. This untidiness was represented by pencil shavings, torn paper, remnants of lunch, mislaid books and disarranged furniture. For this the teacher is distinctly to blame. Here the room reflects the teacher! Without a doubt her desk reflects the room!

But are such schoolrooms more numerous, fifty times over, than similar homes? The School cannot believe they are.

Correspondence-Study Courses:—Modern states have for years recognised their obligation to maintain free schools for the children of the people. They begin now to accept the obligation to teach the people themselves. State Universities in the United States were the first to accept this obligation. Wisconsin University set up as its ideal "to give knowledge on any subject whatever to any citizen who sought it from any place in the State". To realise this ideal she added to her ordinary University activities summer courses at the University centre. special courses anywhere on many subjects, professional or academic, correspondence-study courses with travelling libraries and travelling instructors. State Departments of Education could not stand aloof. Massachusetts, a state that has always been slow to endorse doubtful educational causes, has recently organized a Correspondence-Study Division of its Department of Education. This Division offers assistance at any centre in the state by correspondence to students in many academic and professional subjects. This is the beginning. The sequel may be a revolution in the State's relation to public education.

The Department of Education of Ontario now offers summer courses in several academic and professional subjects. Through the University of Toronto it also endorses preparation by correspondence for the Summer Courses for the Faculty Entrance, Normal Entrance and Commercial Specialists' examinations. To one familiar with movements in the United States an expansion in this correspondence work in Ontario is assured.

**Degrees in Pedagogy:**—Elsewhere The School gives a list of the successful candidates in the recent examinations for degrees in Pedagogy. The names of forty candidates appear in this list. This notable expansion in the number of Canadian educationists interested in advanced pedagogy is due to some extent to the character of the revised courses

but in the main to the Summer School in the subjects of the courses. This Summer School was held in 1915 at Queen's University, Kingston. It will be held in 1916 at the University of Toronto. Are you interested?

Public School Graduation:—Junior and Senior Diplomas.—The Ontario examinations for the Public School graduation diplomas are relatively unimportant. Though the number of candidates increases steadily they are still far too few. Not what the examinations are but what they will become justifies a reference to changes effected by the Public School Regulations of 1915.

In addition to the changes in the courses of study of Form V of the Public Schools, which will be referred to later in The School, there are a few changes in the list of examination subjects and papers based upon those courses. Algebra and art are no longer to be obligatory subjects of the Junior Diploma examination. They pass over into the optional group and are so classified as to make it unnecessary for a candidate to take both of them. To the group of options, thus enlarged by algebra and art, shorthand with typewriting is also added. In the list of optional subjects bookkeeping is now defined as bookkeeping and writing. The same or similar changes appear in the prescription for the Senior Diploma examination.

Other changes are intended to give greater smoothness and accuracy to the motions of the examination mechanism. Provision is made for the conduct of the practical test in the new subject, typewriting. The supplementary literature is defined as "four suitable works part (not two as heretofore) prose and part poetry". The deductions for misspelt words (four marks each) and for the misuse or omission of capitals, hyphens, or apostrophes (two marks each) become specific and uniform. Under conditions as to percentages that obtain in other departmental examinations it is provided that unsuccessful candidates at the Senior Diploma examination or, as hitherto, at the Junior Diploma examination may be granted Junior High School Entrance certificates.

He was a motherless boy, and his father's only child, but some of the relatives had decided that he should be sent to a boys' school, fifty miles from home, according to the Youth's Companion. At last the father had agreed to the plan.

Forty-eight hours after his boy's departure the father received a letter, which was, although not faultless as an example of spelling, so much to the point, and so in accordance with his own feelings that the plans for the future were speedily readjusted.

"Dear father," wrote the exile, "it's all right here, and I'm not homesick, I beleave, but life is verry short, and don't you think you'd better let us spend some more of it together?

#### Studies in Literature

O. J. STEVENSON, M.A., D. PAED, Normal School, Toronto.

#### THE SONNET

What is a sonnet? 'Tis the pearly shell That murmurs of the far-off murmuring sea; A precious jewel carved most curiously; It is a little picture painted well. What is a sonnet? 'Tis the tear that fell From a great poet's hidden ecstasy; A two-edged sword, a star, a song,—ah me! Sometimes a heavy tolling funeral bell. This was the flame that shook with Danté's breath, The solemn organ whereon Milton played, And the clear glass where Shakespeare's shadow falls; A sea this is,—beware who ventureth! For like a fiord the narrow floor is laid Mid-ocean deep sheer to the mountain walls.

RICHARD WATSON GILDER.

What is a sonnet? The text-books tell us that it is a poem of a certain form,—fourteen lines in length, with a fixed rhyme scheme. The poet tells us that it is "a little picture painted well",—a delicate structure requiring all the poet's skill to make it perfect. We shall understand both these descriptions better if we examine a sonnet such as the following to see how it is constructed and what the relation is between the form and the meaning.

#### LET ME BUT LIVE

Let me but live my life from year to year, With forward face and unreluctant soul, Not hastening to, nor turning from, the goal; Not mourning for the things that disappear. In the dim past, nor holding back in fear From what the future veils, but with a whole And happy heart, that pays its toll To Youth and Age, and travels on with cheer. So let the way wind up the hill, or down, Though rough or smooth, the journey will be joy; Still seeking what I sought when but a boy, New friendship, high adventure, and a crown. I shall grow old, but never lose life's zest, Because the road's last turn will be the best. HENRY VAN DYKE.

In the first eight lines of this sonnet the poet tells us that in his ideal of life he wishes to travel onward cheerfully, neither looking

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behind with regret nor looking forward with fear; and in the last six lines he expresses his confidence that such a life will bring him increasing joy as he grows old. The first eight lines thus form a sort of introduction or preamble to the sonnet as a whole. The main thought is summed up in the tenth line:

"Though rough or smooth, the journey will be joy;"

And the last four lines form the conclusion, in which the main thought is further explained and elaborated. In this form of sonnet the movement of the thought has been compared to the rising and falling of a wave, which gathers force, breaks, and dies away upon the shore.

The first eight lines containing the introduction is known as the octave, or group of eight. The octave is further divided into two groups of four lines, in each of which the rhymes are similar,—thus, abba, abba. The repetition of the rhyme serves the same purpose as a cord or string tying these eight lines into a single bundle. The last six lines is known as the sestette, or group of six. If you examine different sonnets you will find that the rhyme scheme in these six lines varies greatly. Sometimes there are only two rhymes, sometimes three, which are arranged in various ways according to the effect which the poet wishes to produce.

As a form of verse the sonnet calls for the exercise of great skill; for the poet's thought must be such as to fit into the compass of fourteen lines, and it must show no sign of padding and no undue crowding of detail. The rhymes must be carefully chosen; the main thought must fall on the breaking of the wave; and the music must be carefully modulated so that the emotion dies away without the appearance of either violence or undue restraint. It is a delicate instrument, that is capable of various effects according to the touch of the skilful player. A murmuring shell, a sword, a jewel, a tear, a star, a song, a flame, a solemn organ voice, a tolling bell,—these are some of the names by which the poet seeks to describe its varied music; and to lovers of poetry who know the sonnet in its various forms there are none of these comparisons that will seem inapt or inappropriate. "It is a little picture painted well".

#### A SONNET OF SHAKESPEARE'S.

In addition to his plays and early poems, Shakespeare wrote a series of sonnets—one hundred and fifty-four in all. These sonnets were probably written sometime between 1594 and 1599 and were circulated in manuscript form among Shakespeare's friends. In the year 1609 a printer named Thorpe succeeded in obtaining copies of them, and published them, evidently without the consent of Shakespeare. In Thorpe's collection the sonnets were arranged in two groups. The sonnets in the first group are addressed to a man, some one evidently of high rank whom the poet holds in high esteem. But his friend proves

unfaithful, robs him of his lady love, and bestows his favours upon a rival poet. In the end, however, the friends are reconciled and the poet is once more happy in the enjoyment of the love and favour of his friend. The second group of sonnets—twenty-nine in all—is concerned wholly with the poet's passion for a certain 'dark lady' through whom his friend and he had for the time become estranged.

There are some critics who think that none of the sonnets have any bearing upon the life of Shakespeare, but that they are merely a series of "exercises" in which the poet was testing his skill. But there are others who believe that "with this key Shakespeare unlocked his heart", and who maintain that throughout the sonnets there are to be found references to the poet's own life and expressions of his own feeling.

It happened that in Thorpe's edition he dedicated the volume to "the only begetter of the ensuing sonnets, W— H—". And the critics have carried on a long and fruitless controversy in their attempts to identify "W. H." By some, the mysterious W. H. is supposed to be William Herbert, Earl of Pembroke, a young nobleman many of the incidents of whose life fit in with references in the sonnets. Others suppose W. H. to be Henry Wriothsley, Earl of Southampton, to whom Shakespeare had dedicated his earlier poems; and still others hold the opinion that W. H. is William Hall, a friend of Thorpe's, who was the "begetter" of the sonnets in so far as he procured them for Thorpe to print.

But after all, the discussion leads us nowhere; and for the modern reader the important thing that remains is that in this series we find a collection of the most beautiful poems that have ever been written in praise of friendship. In the following sonnet the theme is simple. The poet is in a mood of depression, a fit of "the blues", in which he despises himself and envies the happiness of others; but in the midst of his despair comes the thought of his friend, and his gloom at once gives way to gladness and rejoicing:

When in disgrace with Fortune and men's eyes I all alone beweep my outcast state,
And trouble deaf heaven with my bootless cries,
And look upon myself and curse my fate;
Wishing myself like one more rich in hope,
Featured like him, like him with friends possest,
Desiring this man's art and that man's scope,
With what I most enjoy contented least,—
Then in these thoughts myself almost despising
Haply I think on thee, and then my state,
Like to the lark at break of day arising
From sullen earth, sings hymns at heaven's gate!
For thy sweet love remembered such wealth brings
That then I scorn to change my state with kings!

Shakespeare's sonnets differ in form from the type with which we are most familiar. They consist, in each case, of a long introduction or preamble of twelve lines followed by the conclusion in the last two lines of the sonnet, in which the main thought of the poet is driven home as it were with a single hammer stroke.

#### SONNETS FROM THE PORTUGUESE.

The finest series of love sonnets in the language are the "Sonnets from the Portuguese", written by Elizabeth Barrett before her marriage to the poet Browning. Up to the year 1845, when she and Browning first met, Elizabeth Barrett was an invalid, confined entirely to her home. Then came the meeting with Browning, their mutual love, and their marriage in opposition to the wishes of her father. Browning had already visited Italy on two different occasions; and in the hope that a warmer climate would benefit Mrs. Browning's health they at once set out for Pisa and Florence. Three years later, in the spring of 1849, a son (Robert Barrett) was born to them. During the summer, when father, mother, and child were at Bagni di Lucca, Mrs. Browning one day said to her husband: "Do you know, I once wrote some verses to you"; the next morning she shyly slipped some manuscript sheets into his pocket and ran quickly away. The manuscript contained the sonnets-forty-four in all-which Mrs. Browning had written in her invalid room in London during their engagement, and which she had kept to herself for the best part of three years. No one could have had a stronger dislike for publicity in personal matters than Browning; but, as he afterwards explained, it was because of his earnest entreaty that the sonnets were published. Among Mrs. Browning's earlier poems was one which related to the Portuguese poet Camoens, and Browning sometimes playfully spoke of his wife as his little Portuguese. It was this which suggested the title, "Sonnets from the Portuguese". The following is one of the best known of the sonnets:

How do I love thee? Let me count the ways. I love thee to the depth and breadth and height My soul can reach, when feeling out of sight For the ends of Being and ideal Grace. I love thee to the level of every day's Most quiet need by sun and candle-light. I love thee freely, as men strive for Right; I love thee purely as they turn from Praise, I love thee for the passion put to use In my old griefs and with my childhood's faith. I love thee with a love I seemed to lose With my lost saints,—I love thee with the breath, Smiles, tears, of all my life!—And, if God choose, I shall but love thee better after death.

## Nature Study for March

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#### A WINTER STUDY OF THE COW.

**Introduction.**—Of all the domestic animals on the farm, none, not even excepting the horse, is more valuable from an economic standpoint than the cow. The farmer could do without horses and use oxen again, or perhaps substitute engine power but cows are indispensable to our modern civilisation. In conducting the lessons it is best not to make exhaustive observations of the animal at one time but the pupil should observe them for a few minutes each day while playing or choring in the stable.

Observations to be made by the Pupils.—Go quietly into the stable about four o'clock and observe the attitude of the cows. What are almost all doing? Ask your father how the cud is formed, where it comes from, and where it goes after being chewed. Watch throughout the winter for a cow that ceases chewing her cud for a couple of days. What causes her to do this? What happens if she does not start again? What expression is there on a cow's face as she lies chewing her cud?

Now stir about the passage and notice the effect upon the cows. In rising which legs are moved first? Which feet take their position on the ground first? Watch several and see whether they all rise in the same way. How do some indicate their wants? For what do you think they are calling? If one bawls very loudly offer her a pailful of water. Does she take the water into her mouth in the same manner as the cat takes milk? Does she empty the pail as completely as a cat does a saucer of milk? How much water will she drink at one time? Give a cow a mangold and watch how she eats it. How does she start? Which jaw moves to do the biting? Do all the animals you know move only the lower jaw? Why does the cow not just take a bite out of the mangold as a horse would do? By looking into a cow's mouth or pulling back her lips, observe in which part of the jaw teeth are absent. Perhaps she is old and has lost them so examine the teeth of three or four of the quieter cows. What replaces teeth on the front of the upper jaw? Why can a cow not nip off the grass as closely as a horse? Get your father to hold a cow's mouth open until you count her teeth. How many has she? Describe their arrangement. Now watch a cow eat meal or ensilage. What organ is of great assistance to her in bringing the food into her mouth? Observe whether a horse uses his tongue or lips for the same purpose. Why can a cow eat so much food in such a short time? About how long is it after she has finished feeding before she lies down? In lying down which legs are moved first? Which next? Tell in order all the movements she makes in lying down. Notice how she differs from a horse in this respect.

Again watch the cows when they are outside. Where do they go as soon as they are let out? Does the same cow always drink first? What would you judge from this? Do they play among themselves? Can they run as quickly as a man? As a dog? How many ways have they of moving? Are they quite sure on their feet or do they often fall? Have you ever seen two cows fighting? What is their chief weapon? What is the usual shape of a cow's horns? Have all cows horns? Observe the markings on the horns of an old cow and notice whether the same markings are present in the horns of a younger animal. What is the origin of these rings? Ask your father how to tell a cow's age by the rings on its horns. Have cows a language? How would you describe a cow's voice when angry? when calling for other cattle? When hungry, thirsty, or wanting salt? When calling to her calf? Does the cow roll like a horse? Describe the skin of a cow that is well cared for? What kind of hair has such an animal? What kind of hide and hair has a cow that has to stay out in a cold shed? Explain the difference. Describe the foot of the cow. Upon what part of her foot does she stand? Ask your father to show you the position of a cow's knee. Feel her nose. Does it feel like the nose of a dog? For what purpose do you think her moist nose is used? Are good milch cows shaped any differently from fat cattle which are grown for the butcher? What is the shape of the body of a good Jersey cow? Is her head long or short? Wide or narrow? Is her mouth large or small? Is the neck thin or thick? Is her back straight? Is her stomach line straight? Is the space between the hips wider than the space between the shoulders? Is the udder large or small? Is each of its quarters about the same size? What is the temperament of the Jersey cow? How much do you think she would weigh? Why is she called a Jersey? Find the position of her native home on the map. Ask your father to tell you the names of two other kinds of cattle that are valuable as milkers. Ask him what marks they have which distinguish them from Jerseys. Ask him to tell you the names of the chief kinds of butchers' cattle.

On another evening watch carefully while the cows are being milked. Keeping in mind the best stable you have ever seen decide what you consider the four most necessary qualities of a good stable. What precautions should a good milkman always take before beginning to milk? Why is it more necessary to keep milk clean than water? What are

the two chief foods which are made from cow's milk? Ask your father whether a good "butter cow" is always a good "cheese cow". Ask him which breed of cattle is best for each. Weigh the milk of two or three cows both morning and evening. How much does a good cow produce daily? How many months in the year will she milk? How many years will she continue to be a good milker? When she becomes old what defects in the mouth prevent her from feeding properly? What is then done with the cow? Is the meat as good as that of a young cattle beast? What is done with the hide?

Were there any cattle in Canada before it was settled by the French? What wild animal on the western prairie was most like our cattle? What has caused its disappearance? For what purpose were they killed? Where is a large herd of these animals still to be found and who protects and cares for them? How did our first cattle come to America? For what other purpose were cattle formerly used in Ontario?

To the Teacher.—If you go quietly into a cow-stable at any time between meals most of the cows will be lying down chewing their cuds. The cud is the unmasticated food which the animal swallows while eating quickly. It goes into the ruminating stomach and is retained there until the cow has leisure to chew it. Ball-like masses are then brought up by the action of muscles. These are then masticated by the cow's big molars and passed on into the true stomach. If a cow fails to chew her cud it is a sure sign of sickness and the resumption of the chewing of the cud is an evidence of returning health. A cow while masticating its cud has a look of absolute contentment on its face.

If you stir about the stable when the cows are lying down most of them will rise. They do this by first kneeling on the ankles of their front legs. Then they raise the hind quarters putting the hind feet on the floor. Next they raise the front quarters and then they are standing up. When disturbed by the presence of anyone in the stable some of the cows will begin to bawl. They desire either water, salt, or something to eat. A thirsty cow will drink two or more large pailfuls of water at one time. In drinking she immerses her mouth in the water and empties the pail by suction. She does not drain it as completely as a cat or dog would in lapping milk from a dish with the tongue. Since a cow has no teeth in the front of her upper jaw she eats her mangold by holding it in place with the hard muscular pad which forms the upper gum, and scooping it out with the sharp front teeth of the lower jaw. In much the same way a cow eats grass. She grasps it in this vice and then by moving the whole head she tears it off. As a result she does not crop the pasture as short as a horse, which has teeth on the front of both upper and lower jaws. Normally a cow has eight front teeth on the

lower jaw. Behind these on each jaw there is a vacant place and then six grinding teeth on each side. In eating fodder such as ensilage the cow's tongue is constantly used in sweeping it into the mouth. On account of having a ruminant stomach she can eat a great deal in a short time. About half an hour after she has finished her meal the cow lies down. In doing this she does just the reverse of what she did in rising. First she kneels on her front ankles in turn. Then the hind quarters go down and finally the front quarters. Both legs on one side are kept partially under her.

Among a herd of cows there is always a recognized leader and she is mistress of the yard. She drinks first, enters the stable first and during inclement weather occupies the best place in the shed. When cows are outside they frolic considerably at times and playfully gallop about the yard. They can run faster than a man but not as fast as a dog. A cow can walk, trot, or gallop. She is a very sure-footed animal and scarcely ever falls. When in a fight she depends for success upon her arched and pointed horns. Most of our cows have horns but some known as muleys are without them. Cows have a language which they all understand and which people may soon learn to interpret. When angry, a cow gives a fierce roar which is enough to intimidate the boldest man. When calling to other cattle she has the expressive "call of the herd". When hungry or thirsty she bawls continually and when she wishes to call her calf she uses a gentle "mooing" voice. When out of doors cows never roll.

A well-kept cow has a soft yellow skin covered with short sleek hair. One that is housed in a cold shed will grow a thicker, tougher hide which will be covered with heavy, coarse hair. This is for protection from the weather. A cow has a split hoof with four toes upon two of which she stands. The other two are higher up and seldom touch the ground. What is commonly called her knee is really her ankle. Her knee is at the next joint above, close to the body. If she is well her nose will always be damp like the nose of a dog. This aids her in the sense of smell. A young cow's horns are smooth while those of an old cow are covered with rings. Each ring indicates a year's growth. As the horns grow very quickly during the first two years no ring is noticeable until the third year when the growth is slow. To reckon a cow's age therefore, it is necessary to add two to the number of rings.

A good milch cow has a characteristic wedge-shaped body. The Jersey's head is small, being short and wide. The mouth is large and the neck slender. The eyes are wide apart, large and mild. The chest is fairly wide and deep to provide for strong lungs and a good heart. The back is straight but the stomach line slopes gently downwards towards the hind legs. The hips are always wider than the shoulders.

The udder is large and contains four chambers of nearly equal size. A good Jersey is docile, unexcitable, and gentle in her movements. She weighs from eight hundred to a thousand pounds. Her native home is the little island of Jersey, about eleven miles long and six miles wide, lying in the English Channel. She is easily distinguished by her characteristic yellow silky hair, small-tipped and crumpled horns, and black muzzle. Another valuable milch cow is the Holstein-Friesian. She is invariably black-and-white piebald in colour. Her horns are small, waxy in appearance, tapering gracefully to fine points, and bent inward but not crumpled. She has a capacious udder and her legs are short and nearly straight. The Ayrshire, too, is a good milker. Her colour is of various shades of red or brown, or a mixture of these with white, each colour being distinctly defined. Her horns are wide set and incline upwards. The chief breeds of cattle grown for butchers are the Short-horn, the Hereford, the Aberdeen-Angus, and the Durhams.

A good cowstable must be warm in winter, well lighted, well ventilated and clean. A good milkman before beginning to milk will always wash the cow's udder with warm water and dry it carefully. This is to prevent any particles of dirt from getting into the milk. It is necessary in handling milk to be scrupulously careful as disease germs will develop in it much more readily than in water.

The two chief foods made from a cow's milk are butter and cheese. The Jersey's milk is rich in butter-fat and hence she is a good "butter cow". The Holstein has an enormous flow of milk but it contains a low percentage of butter-fat. It is, however, well supplied with curd and hence she is a good "cheese cow". All milk contains fat, curd and The butter-fat when fed to an animal produces fat and when churned produces butter. The curd is converted into lean meat or muscle and when manufactured in a factory gives cheese. The ash goes principally to form bone. A profitable cow will give about twenty or twentyfive pounds of milk a day and will continue to milk for at least ten months. She would thus produce a total of about six thousand pounds of milk which represents about three hundred pounds of butter-fat or three hundred and forty pounds of butter. She will milk well until about fourteen years old and then she begins to lose her teeth. Cows are then fattened and sold to the butcher, but the meat is not nearly so good as that of a young beast. The hide is valuable. It is first sent to the tannery where it is made into leather and then it is manufactured into various articles.

Cattle were not native in America but were brought from Europe, chiefly from the British Isles and many of the best breeds are still obtained there. The buffalo, which within recent times roamed our western prairies in countless herds was the nearest relation to our

domestic cattle. They were hunted for their hides which were made into genuine buffalo-robes. The species is now practically extinct. However a large herd of about fifteen hundred is maintained at the expense of the Dominion Government in a great enclosed ranch in Alberta.

A good winter meal for a milch cow would be a pailful of water, a bushel of ensilage, a half gallon of bran, a gallon of ground oats, a handful of flax seed, a handful of salt, and lastly a forkful of well-cured clover hay.

#### **Book Reviews**

What is Education? by Ernest Carroll Moore. Ginn & Co., Boston. Price \$1.25. Professor Moore may not have kept abreast of recent research as recorded in the thousand and one magazines devoted to Education spelt with a capital "E", but he certainly has read deeply into the books of mankind's greatest thinkers. When all is said and done a thinking man who knows his Plato and his Bible well can produce a book on education that is eminently worth the reading. And that is what the author has done. "What is Education?" is a thoughtful work which stimulates thinking. We may be disappointed, for example, when reading the chapter on Formal Discipline to find no mention of Spearman's recent contribution which re-opens the whole subject once more, vet of the essential soundness of the treatise there can be no room for doubt. It is so hard to think; so easy to take one's opinions ready-made. Professor Moore has chosen the harder path. Rousseau's teachings as reflected in Dewey's writings and in his practice at Chicago, and McMurry's work on study are found here in a new dress. The book will probably be classed by librarians under philosophy of education or principles of education. As a text in either branch it can be confidently recommended to college teachers (there is a handy "Outlines" accompanying it,) and as a stimulating work for thoughtful people the whole world over our seal of approval is herewith stamped upon it.

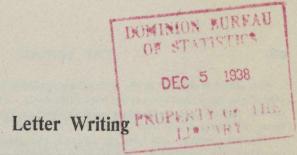
. S.

A Class Book of Physical Geography, by Simmons and Stenhouse. Published by The Macmillan Company of Canada, Toronto. Price \$1.00. This is an excellent book for High School purposes as it covers the work in physical geography taken in our secondary schools in Ontario. At the beginning of each chapter is some practical work which illustrates the descriptive matter taken up in the succeeding part of the chapter. The illustrations are excellent and are in every case helpful in interpreting the text. Unlike many text-books in physical geography it is not a dull book to read. It can be recommended to our teachers of physical geography as one of the most attractive medium-sized books on physical geography that has appeared for a long time.

G. A. C.

Agricultural Education for Teachers, by G. A. Bricker. 172 pages. Published by the American Book Company. This is not a text-book but it is written particularly for the teacher in order that he may have a broad grasp of the nature, purpose and method of agricultural education in elementary schools. The author has a fluent style and the book is an interesting one to read. All educationists should be interested in studying its contents, since the subject of agricultural education for rural children occupies a very prominent place in the educational movements of the present day.

G. A. C.



FREDERICK H. SPINNEY
Principal, Alexandra Public School, Montreal

Thas been practically impossible to keep pace with the daily volume of pupils' letters received from all parts of Canada, United States, and England: and thus no doubt many teachers and pupils have been disappointed in not yet receiving answers. However, it is expected that the greater number of letters will be answered before the end of the year.

On account of the widespread interest, and the remarkable improvement shown in the letters during the past year, I have decided to continue the plan of exchange, slightly modified, but in no way to lessen the benefit to the young writers.

If each teacher will send to the above address *three* of the best letters written by her pupils, together with a list of the names of all the pupils of her class, the work of exchange will be very much diminished, and all the pupils will eventually have the pleasure of writing and receiving letters. If teachers will enclose from 3 to 5 cents in postage, it will help with the necessary expense.

Many teachers have found that the best method of stimulating interest is to read aloud all the letters that have been published in The School. When sending the "three best letters", it would be well for the teacher to make reference to one that she thinks would be suitable for publication. It is the originality of a letter, rather than good form, that makes it appropriate for publication.

The following letter has been selected, as it was accompanied by a photograph of the school. This is an excellent idea; and we hope that other schools will choose to follow the example of Mount Hope. It is always a good sign when pupils and teachers are proud of the school which they attend. The more attractive the school the more attractive is the time that is spent there, and the more beneficial are all the daily activities. The use of the camera is a splendid pastime to be cultivated among girls and boys. It affords many hours of delightful pleasure throughout life. And now for the letter:—

Mount Hope, Ont., Oct. 15, 1915.

Dear fellow pupil:-

We have been asked by the teacher to write to your school, and I would like to have my letter given to a fourth class pupil.

Our school is situated in the little village of Mount Hope, about two hundred yards west of the stone road from Hamilton to Caledonia. There are about forty pupils on the roll, with an average attendance of thirty-seven. I am in the fourth class, and hope to try the entrance next year.

There is a cement walk from the village to the school gate, and a board walk from the gate to the schoolhouse. The building is made of brick with a metal roof. There are two frame entrances and a frame woodhouse at the front.

In the school yard we have a small garden, divided into about thirty plots, each plot belonging to two pupils. Some pupils grow flowers, others grow vegetables.

The inside looks very bright. The walls and ceiling are green metal. There are many beautiful pictures on the walls. There are ten blackboards, some used for the primary classes, and some for the higher grades.

There are two stoves, one at each end of the room. There is a weather bulletin on which we keep a record of the temperature and changes in the weather. Our library contains about 150 books.

We are soon to have a school fair, for the first time; and I hope that it will be a success.

I am 13 years old, and the youngest in the family. I have one brother and one sister. At home we have eight horses, twenty-five head of cattle, ten pigs, and two hundred chickens.

Well, what do you think of the war? I think it is one of the greatest atrocities the world has ever seen—to think of the powerful guns which mow men down like mowing hay! I hope it will end soon, and that the Allies will win.

Hoping to hear from you soon, GEORGE L. WILLSON.

It is plainly evident that George wrote the foregoing letter under the impression that it would be read by another boy in some distant place. That is the feature that makes an exchange of letters of such high value. The pupil writes with a purpose, not for the waste-basket, but for a real live boy just like himself. That draws out his *very best* and that is the highest aim of any system or method of education.

Teachers must not be too critical regarding mistakes, nor try to correct all mistakes at a time. Such a course is likely to kill the interest and the interest is the very thing that we wish to keep fully alive and active. If a letter has but one or two mistakes, it is unwise to ask for a copy, unless the child volunteers to rewrite the letter. And it is well always to have the rewriting done as a voluntary exercise. "Do you think you could do it better if you tried again?" is a suggestive question from the teacher that is sure to meet with a gratifying response. Children enjoy being led, not driven. It should be the teacher's highest aim to drive as little as possible in any subject, and it is particularly true in regard to written composition.

Again, if you wish to take part in the exchange of letters, send three of the best letters, with the names of all the pupils who wish to have a share, also from 3 to 5 cents in postage.

#### Little Tots' Corner for March

HELENA V. BOOKER Wentworth Public School, Hamilton

HAT think you of this definition of a modern school-room—"a place where children, who love to be active, are kept still, and where teachers, who love to be still, are kept active"? Whether we agree with it entirely or not we must confess that in a school-room, the child who loves bodily activity gets the minimum of it and the teacher, who neither needs nor loves it so much gets the maximum of it. In a primary room this condition is greatly exaggerated by the fact that young children are the most active by nature, and the teacher must be kept active by the constant change of work, fifteen minutes being the usual limit for primary children to remain profitably employed. Hence at four o'clock we find a group of children with muscles aching through lack of activity, and a teacher with muscles aching through over-activity.

How can we, without lessening our efficiency, abolish this anomaly? Wherever possible have each child change his position at some time during a lesson. Let the children who finish work first come to the blackboard and those who are laggards come to the front. In recitations frequently say "Those who know, stand". Have all the class stand; then say "Those who can read my story sit down". Have class stand and say "When you have said this list of words to yourself three times, sit down". When teaching a motion-word have class stand and illustrate the motion. Such devices, along with marching, singing, games, drill or exercise will appease the child's love of activity.

Number-Work.  $2\times 5=10$  (read twice five are ten, not two multiplied by five are ten.) "Take 10 blocks. Divide them into fives. How many fives have you? Put your 2 fives together. What number have you"? Note that this combines division and multiplication which should always be related. Repeat this operation with splints, and other materials. "How many hands have you? How many fingers on each? How many fingers altogether? You have 2 fives somewhere else on your body. Tell me about your toes". Develop the story "I have 2 feet, with 5 toes on each, and that makes 10 toes". (Incidentally, why do little children laugh when toes are mentioned?) Two rows of chairs at the front may represent 2 sleighs. Seat 5 boys on each sleigh and draw out the story—"I see 2 sleighs with 5 boys on each and that makes 10 boys" Similarly 2 rows of seats may be 2 street-cars and 5 girls may ride on

each. Two letter-boxes may have 5 letters posted in each. After these objective illustrations blackboard pictures may be developed, teacher and pupils drawing together as teacher questions. "How many trees shall we draw"? (2) "How many apples on each"? (5) "How many apples have we now"? (10) Similarly draw 2 rooms with 5 chairs in each; 2 branches with 5 leaves on each, 2 sleighs with 5 boys on each, 2 nests with 5 eggs in each. Under each picture write  $2 \times 5 = 10$ . Lastly tell stories illustrating the fact such as "I have 2 pockets. If I put 5 coppers in each, how many coppers shall I have"? Draw out similar stories from the pupils. In drill vary the form of the questions so that the answer is not always 10. "How many fives are there in 10"? "How much is 2 fives"? "How much is 10 divided into fives"? "What is twice five"? "I know 2 numbers that are just alike that will make 10. What are they"? "If I divide 10 into groups of 5, how many groups do I get"? Drill rapidly on the new fact combined with the old.

 $2\times 5 = 2\times 3 = 3\times 2 = 2\times 5 = 3\times 3 =$ 

When the children can readily count to 100 begin counting by twos, first taking the even numbers up to 20, and training the child to take up the count at any place, e.g., the teacher says "6, Elsie". Elsie responds 6, 8, 10, 12, etc., up to 20. Continue to 100 by counting 10 more each day. Proceed in the same manner taking the odd numbers. Counting backwards aids subtraction. Begin at any number and have the child count backwards to the 10 preceding, e.g., the teacher says "54, Tom". Tom replies "54, 53, 52, 51, 50".

PHONICS. These lists as given each month will be found useful if copied into a small note-book for future reference.

eet-meet, feet, beet, sheet, sweet, fleet, sleet, street.

ag-bag, tag, wag, lag, nag, rag, sag, mag, brag, flag, stag, drag, slag.

ug—rug, mug, tug, lug, pug, jug, hug, bug, dug, plug, snug, drug.

ass—mass, lass, bass, pass, class, glass, grass, brass.

ark—park, lark, dark, hark, mark, bark, shark, spark, Clark.

ash—cash, dash, hash, mash, sash, dash, rash, gash, (wash), Nash, trash, clash, flash, crash, smash.

ook-cook, took, look, rook, book, nook, hook, shook, brook, crook.

ent—sent, rent, lent, bent, tent, dent, went, spent.

eed—seed, need, feed, reed, weed, deed, bleed, greed, steed, speed.

oy-boy, joy, toy, Roy, Troy.

ask-mask, cask, bask, task, flask.

eck-deck, neck, peck, (w)reck, speck, check.

uck-duck, luck, pluck, suck, tuck, muck, truck, stuck, struck.

Some words in these lists would be unfamiliar to children in one section, while quite common in other sections, so the teacher must weed out accordingly. In a Scotch section the word "lass" will be quite

familiar; close to an iron smelter the word "slag" is common; children who live by a pond or inlet will know all about the word "reed"; but where a word is unfamiliar to the majority of the class it may be omitted unless valuable enough in itself to be taught.

Supplementary Reading. A story such as the following may be profitably used as a continued story on the blackboard, adding a line or two each day until the story is completed. Notice that the stories are not written each beginning immediately under the other. This arrangement is better for the eyes, and is much more easily followed. Test the two ways on the board, and you will appreciate the paragraph style. Where a sentence must be broken, break it in phrases.

V

5

One day Baby Chicken and Mother Chicken went for a walk. They came to a pond. Two ducks were swimming in the water. "See how we can swim"! said the ducks. "I could swim like that", said Baby Chicken. "Come and try", said the ducks. "O, don't"! said Mother Chicken. "I'll show them how I can swim", said Baby Chicken, and she ran out into the water. She could not use her feet like the ducks. She began to sink. Mother Chicken called as loudly as she could. Tom heard her and ran to the pond. He pulled Baby Chicken out. She was not hurt, but very wet. Why couldn't Baby Chicken swim?

March is the childhood of the year, eager, expectant, variable, hopeful, looking forward, never backward, always waiting for the good to come. Birds and seeds are waiting to fulfil last year's promises, and are quite as ready to show us their secrets in the schoolroom as in the world of outdoors. Branches of pussy-willow, lilac, horse-chestnut and maple develop successfully in jars or vases of water.

Pussy-Willow. "Who got new overcoats last winter"? "Why did you get new ones"? Some will say that the old ones were worn out, but many will say that they were too small. "Why did it get too small"? This will bring many quaint replies, but all will agree that it is the child's own growth which is the cause. The same thing happens to the pussy-willow. Watch the buds burst their brown overcoats as they grow and expand. See the soft gray fur peep forth, and at last the whole overcoat is literally shoved off by the swelling of the bud. Follow its progress until the tint of yellow begins to show under the gray, and soon the pussy has changed into a catkin, full of feathery, yellow pollen. If kept still in water, roots will grow from the willow branches, and these form an interesting study. Roots usually hide themselves in the earth and give us no opportunity of watching their growth, but here we can see the tiny rootlets, like silver threads, reaching out in all directions.

The lilac, horse-chestnut and maple buds open differently, the leaves being folded one upon the other like the scales of a fish. Watch the layers unfold, revealing leaf upon leaf, and lastly, the flower in the heart of the terminal bud. It is always a marvel to the children to see how much Nature packs into one small bud. "Why are our buds in the schoolroom out in leaf while those on the trees are still tightly closed"? The children will readily say "Because the room is warm". "What warms the buds outside"? "The sun". Speak of the growing strength of the sun's rays in the spring, until there is warmth enough to make the buds unfold as ours in the room have done. "What else do our buds need besides heat"? "Water". "How do those on the trees get water"? Speak of the melting of the snow, the frequent spring rains. Review last falls' talk on sap. Our buds in the room soon die after unfolding. Why? Speak of the nourishment in the sap which is not in the water of the vase. By the time the buds indoors are done, those outdoors will be ready for observation. Discourage children from wantonly breaking and destroying trees in order to bring specimens. In cities, after the spring visit of the official tree-pruner, ample material can be gathered from the limbs lying on the ground. Where different specimens are desired warn the children to bring only one small branch.

#### **Book Reviews**

Practical Lessons in Agriculture, by Lester S. Ivins and Frederick A. Merrill. Published by the American Book Company. In Canada and the United States the tendency is to merge nature study and elementary agriculture to a large extent, and books are appearing now to assist both the teacher and the pupil in this process. This is a sort of laboratory manual and note-book combined. It consists of a series of 208 lessons divided among the school months. It states how each topic should be treated practically and gives a part of the information necessary for the teacher to know in order to teach the topic. It should be very helpful to the teacher of elementary agriculture. G. A. C.

Essays for Boys and Girls, A First Guide Toward the Study of the War, by Stephen Paget, with 16 illustrations, reproduced from "Punch". 198 pages. Price \$1.50. The Macmillan Company of Canada, Toronto. To quote from the preface: "This book is for boys and girls only. If it should guide them toward more careful study of the War, that is all that it was intended for. If they do not like the essays, they will none the less enjoy the illustrations." The present reviewer predicts that they will like both the essays and the illustrations and advises teachers to put this book in the school library. The essays are full of very suitable information and the sixteen illustrations teach sixteen important lessons in a most impressive manner.

Elementary Lessons in Electricity and Magnetism, by Silvanus Thompson, 744 pages. Published by the Macmillan Co. of Canada. The new edition of this favourite text has brought it well up to date, and a good many changes and improvements have been made to keep it in touch with the rapid advances in electricity during the last few years. The chapters on electric lights, wireless telegraphy, and electron theory of electricity are largely new. Such recent developments of electricity as metallic film lamps, nitrogen film lamps and flaming are lamps are fully treated. Electricity is rapidly changing in its subject matter and it is of great importance that every science teacher have recent books regarding it. Undoubtedly the book under review gives the information wanted as simply and lucidly as it can be obtained.

G. A. C.

### Announcement of Summer Session and Correspondence Courses for Teachers' Certificates 1916

ONTARIO DEPARTMENT OF EDUCATION

#### Courses

With the co-operation of the University of Toronto the Department of Education proposes to offer to teachers in 1916 Free Summer Courses leading to—

- 1. The Examination for Entrance into the Normal Schools, Part B.
- 2. The Examination for Entrance into the Faculties of Education, Parts C and D.
- 3. The Examination for Professional Certificates in Commerce, Household Science, Manual Training, and Vocal Music, and for Professional Certificates as Teachers of Auxiliary and of Kindergarten-Primary Classes.

Since the Summer Session is too short to permit any subject to be covered in full detail, teachers who purpose attending it are urged to familiarize themselves as fully as possible with the prescribed work before the session opens. This preparation may be made privately or with such help as can be given through correspondence. Recognizing the difficulties met in private study, the University of Toronto offers ASSISTANCE BY CORRESPONDENCE throughout the school year 1915-16 in preparation for the Summer Courses in Normal Entrance, Faculty Entrance, and Commercial work. This assistance by correspondence will begin upon receipt of applications.

The Summer Session will be open free of charge to all who hold Ontario Professional certificates, and who will have been teaching upon them in Ontario during the school year of 1915-1916. A fee sufficient to meet the bare cost of instruction is charged for the assistance by correspondence.

#### **Book Review**

Plant Life and Plant Uses, by John Gaylord Coulter, also a Spring Flora. 464 and 142 pages. Published by the American Book Company, New York. This is an excellent botany well adapted to the needs of our upper school work. It covers all the course and in a very interesting way. The drawings are well reproduced and are of the kind best adapted for teaching purposes, not photographs of jumbles of vegetation showing no detail, which are altogether too common in books prepared by men with a camera but no energy for drawing. The structural and functional studies are well balanced and the economic factor, though not neglected, is not intruded to such an extent as to make the volume a mixture of agriculture, gardening, forestry, etc., with a modicum of botany interspersed. The book can be recommended without reserve to all our science teachers.

G. A. C.

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## A Song for April

MARY L. BALMER Ryerson Public School, Toronto

List! list! The buds confer.
This noonday they've had news of her;
The south bank has had views of her;
The thorn shall exact his dues of her;
The willows adream
By the freshet stream
Shall ask what boon they choose of her.

Up! up! The world's astir;
The would-be green has word of her;
Root and germ have heard of her,
Coming to break
Their sleep and wake
Their hearts with every bird of her.

See! see! How swift concur
Sun, wind, and rain at the name of her,
A-wondering what became of her;
The fields flower at the flame of her;
The glad air sings
With dancing wings
And the silvery shrill acclaim of her.

CHARLES G. D. ROBERTS.

#### I. AIM:

In studying this dainty bit of English the teacher's aim is to lead the pupils to appreciate the suggestiveness and beauty of the language—so suitable to the theme—and also to encourage the pupils to observe all the colour, beauty, wonder round about them in the awakening of Nature in the Spring.

#### II. PREPARATION:

From day to day the class has been led to observe the changes which are taking place in nature—the lengthening days, the swelling buds, the sprouting grass and seeds, the returning birds, etc.

In previous language lessons such words as confer, exact, dues, boon, concur, acclaim, which occur in the lesson and are unfamiliar to the majority of the class, have been taught.

#### III. PRESENTATION:

Introduction:—In fancy we make a visit to the woods in March and the children describe what they see, feel and hear. Everything is bare, quiet and lifeless. All nature is asleep. We again visit the woods in

April and again the children describe as before. The scene is so different. The day is sunny; the air is softer; the buds show signs of stirring; some birds are singing, the brooks are babbling, altogether it is a scene of life and activity. All nature is awake. Now we shall imagine a group of children discussing some wonderful event which is about to take place or they are eagerly awaiting the arrival of a very important visitor—perhaps the "Fairy Prince" who is to awaken the "Sleeping Beauty". Here the teacher announces that we are about to read of just such a picture but the story is about other kinds of children who are full of expectation and are joyfully prepared to greet a very welcome guest who is bringing most delightful gifts.

The teacher reads or recites the poem. Through his reading he communicates to the pupils his own appreciation of this poem and this will stimulate in his pupils the spirit of expectant interest and the desire to know all about it and thoroughly enjoy it too.

#### IV. GENERAL ANALYSIS:

Who are the children? What are their feelings? Who is the visitor? Who saw her first? Who had the news? At what time of day? Why? In Stanza II, how far has the news reached? Who are her attendants? By such questioning lead the pupils to see the well-marked advance in the procession of the season throughout the three stanzas. In Stanza I, only the winter buds and the sunny hillside have greeted the approaching guest. In the second stanza her influence penetrates even to root and seed. In the third her attendants are hurrying to greet her arrival and to hasten the realization of the good things promised.

#### V. DETAILED ANALYSIS:

What are the dues of the thorn? The gifts of bud, leaf, and blossom which come to it every year. Why should the poet say that the thorn "exacts her dues" and willow asks for the same things as a boon? The pupils appreciate the idea of the sturdy thorn demanding what the slender, drooping willows ask for as a boon. Then there are the expressions "a-wondering", "the fields flower at the flame of her, the silvery shrill acclaim of her". In Stanza III, there is no line of promise as in Stanzas I and II. All has been fulfilled. The song of welcome has reached its climax.

"The glad air sings
With dancing wings
And the silvery shrill acclaim of her."

At this stage the class will no doubt appreciate the fact that the author is a Canadian. A short talk about the author should increase the interest in the lesson.

#### **National Thrift**

NOTICE TO SCHOOL INSPECTORS

Circular issued by the

ONTARIO DEPARTMENT OF EDUCATION

The Minister of Education desires to direct the attention of School Inspectors to the recent appeals made by members of the British Government urging the practice of thrift as a necessary patriotic duty and referring to the School Banking System which is an important and useful effort to overcome our national failings in this direction.

In full sympathy with this movement the Minister desires the assistance of the Inspectors in impressing upon teachers and children the urgent need of the habit of saving; not only on account of its immediate effect upon the country, but also for the permanent result aimed at.

Since all the deposits of the Penny Bank are sent to the Government at Ottawa, each child who saves a dollar lends that dollar to the country. At present the school children of Canada are in this way lending her over a quarter of a million. When the matter is properly brought before the children they will take pride and pleasure in helping, and this most timely assistance can be greatly increased. The Minister trusts, therefore, that Inspectors will do what is in their power to promote the object in view, both in those schools where the Penny Bank is already in operation and also in other centres, so that the work may be encouraged and the system may be extended until as many children as possible have this practical opportunity of doing their "little bit" for a national ideal during the present period of national strain.

A. H. U. COLQUHOUN, Deputy Minister of Education.

Toronto, October, 1915.

#### **Book Review**

Studies in Trees, by J. J. Levison, 253 pages, published by John Wiley & Sons, New York. This is a very interesting little book with no padding. There is probably no book that has been issued on trees that contains as much information of just the character a person requires and with no verbiage. It is just as notable for what it contains as for the trite and unimportant information that it leaves out. It is of great assistance in identifying the trees and also valuable in studying their diseases and remedies, their use for woodland, shade and ornament. It also gives an account of the characters of the wood of each kind. A splendid book for the school library.

G. A. C.

### Diary of the War

(Continued from the February number).

#### DECEMBER.

Dec. 1. General Townshend, forced to retreat from Ctesiphon on account of heavy losses and the arrival of Turkish reinforcements, fights a rearguard action and retires to Kut-el-Amara, 80 miles down the Tigris; two river boats disabled. Baron Sonnino announces that Italy has signed the pact of London and that aid will be given to Serbia.

Dec. 2. General Joffre appointed to be Commander-in-chief of all the French armies.

British casualties up to November 9th announced to be 510,230. AustroGerman troops occupy Monastir; Serbians retreat in good order towards
Albania. British submarine damages a train on the Ismid railway.

British airmen raid Don.

Dec. 3. The United States Government asks for the recall of Captains Boy-ed and Von Papen, the German Naval and Military Attachés at Washington. General Townshend's force reaches Kut-el-Amara and entrenches. British submarine torpedoes and sinks the Turkish destroyer Yar-Hissa outside the Gulf of Ismid.

Dec. 4. British submarine sinks a Turkish supply steamer of 3,000 tons and four sailing vessels in the Sea of Marmora. Anglo-French war conference at Calais.

Fresh British forces landed at Salonika. Mr. Henry Ford's "peace mission" sails from New York.

Dec. 5. Austrian warship Wardiner sinks the French submarine Fresnel off the Albanian coast, and an Austrian submarine sinks a small Italian cruiser off Valona. Austrians and Bulgarians, pursuing the Serbian army, cross the Montenegrin and Albanian frontiers. French troops repulse an attack of the Bulgarians on the bridge-head at Demir Kapu. American steamer Petrolite shelled by an Austrian submarine in the Mediterranean.

Dec. 6. Germans capture Ipek in Montenegro. The French forces retire from Krivolak and Kavadar to strong positions in the Demir Kapu Pass. Bulgarian attack on the British repulsed at Strumnitza. All-Allies' War Council

in Paris.

Dec. 7. Anglo-French line in Balkans forced back by superior Bulgarian forces.

Enemy occupies Demir Kapu. Germans compelled by heavy floods to retire from many advance works along the Yser river. French lose and recapture part of an advanced trench near St. Souplet, Champagne.

President Wilson denounces pro-Germans in his message to Congress.

American steamer Communipaw attacked by an Austrian submarine off the coast of Tripoli.

Dec. 8. Owing to fierce Bulgarian attacks the Allied forces are compelled to retreat still further towards the Greek frontier. Russians occupy the Sultan Bulak Pass in Persia and thus open the way to Hamadan. French make

a counter attack at Butte de Souain in Champagne.

- Dec. 9. Further retreat of the Allies in Macedonia. British lose eight guns and suffer 1,500 casualties. Despatch from Vice-Admiral King Hall published regarding the operations against the German cruiser Königsberg in the Rufigi last July. Russian troops defeat Turco-German detachment in Persia between Teheran and Hamadan. Allied War Council meet in Paris.
- Dec. 10. Two Turkish gunboats sunk in the Black Sea by Russian torpedo-boats. First British official communiqué from the Balkans published.
- Dec. 11. Bulgarians attack the French and British front at Furka and lose 8,000 men.

  Greek Government agrees to withdraw all troops save one division from Salonika, but fails to order demobilisation. General Castelnau appointed to be General Joffre's Chief of Staff. Explosion at the Belgian Government's powder works at Havre; 110 men killed. A small British force routs a party of hostile Arabs on the western frontier of Egypt.

Dec. 12. Franco-British troops evacuate Serbia and Bulgarians enter Doiran and Ghevgeli. Derby recruiting campaign ends. Greek ships detained at

Malta released. Turkish attacks at Kut-el-Amara repulsed.

Dec. 13. British force under Colonel Gordon defeats 1,200 Arabs west of Matruh, western Egypt. Text published of President Wilson's Note to Austria-Hungary on the Ancona outrage.

Dec. 14. German seaplane destroyed off the Belgian coast by Flight Sub-Lieutenant Graham, R.N.A.S. General Sir Horace Smith-Dorrien appointed to command the British forces in East Africa. Supplementary War Credit Bill for \$2,500,000,000 introduced in the Reichstag.

Dec. 15. Sir John French retires from command of the army in France and Flanders, and is succeeded by Sir Douglas Haig. Italy officially announced to have landed an expeditionary force in Valona and elsewhere in Albania.

- Dec. 16. Russians occupy Hamadan. British make two successful night raids on German trenches near Armentières.
- Dec. 17. German cruiser Bremen and a torpedo-boat sunk in Baltic by a submarine.

  Text of Austria's reply to the American Ancona Note published.
- Dec. 18. Orders for Derby groups 2 to 5 to report on January 20th issued. Intense artillery bombardment on the Western front.
- Dec. 19. Withdrawal from Anzac and Suvla Bay accomplished by Sir Charles Monro and Admiral Wemyss with three casualties and loss of six guns. German gas attack at Ypres foiled.
- Dec. 20. Greek Government admits Bulgarians and Greeks in collision at Koritza.

  Russian fleet bombards Varna. General Russky retires from Russian northern command because of ill-health. Persian rebel forces on the Kermanshah road endeavouring to retreat towards Bagdad.
- Dec. 21. French capture enemy works on Hartmannsweilerkopf and take 1,300 prisoners. Mr. Asquith moves a supplementary vote of a million more men for the army. Japanese steamer Yasaka Maru torpedoed and sunk in the Eastern Mediterranean. German munitions factory at Münster blown up: 400 lives lost.
- Dec. 22. Germans regain a footing in the captured trenches on Hartmannsweilerkopf.
  Russians defeat a band of rebels at Rabat Kerim, 26 miles south-west of
  Teheran.
- Dec. 23. Italian troops reach the Greek outposts in Southern Albania. Text published of America's second Note to Austria on the sinking of the Ancona.
- Dec. 24. Turks make a fierce attack on British forces at Kut-el-Amara. They take and subsequently lose one of the forts. French mail-boat Ville de la Ciotat torpedoed and sunk in the Mediterranean: 80 lives lost.

Dec. 25. Turks repulsed before Kut-el-Amara with 900 casualties. British defeat 3,000 hostile Arabs near Mersa Matruh in Western Egypt.

Dec. 26. Russian troops in Persia occupy Kashan and march on Ispahan.

Dec. 27. Total British losses reported to be 528,227. Indian Army Corps announced to have left France. Heavy fighting between Russians and Austrians at Toporontz on the Bessarabia-Bukowina frontier.

Dec. 28. French capture German positions on the Hartmannsweilerkopf. British successfully raid German trenches near Armentières. French submarine Monge sunk off Cattaro. British cabinet practically decides on Compulsory Service.

Dec. 29. French troops occupy the Island of Castellorizo in order to facilitiate action against Adalia in Asia Minor. Austrian destroyers Triglav and Lika sunk

by Italian and Allied warships off Durazzo.

Dec. 30. H.M.S. Natal sunk in harbour by an internal explosion; about 300 lives lost.

P. & O. liner Persia sunk by enemy submarine in eastern Mediterranean with great loss of life. German, Austrian and Turkish airmen bomb Salonika.

Dec. 31. In their offensive in Galicia the Russians cross the Styr near Chartoryisk.

They also capture trenches on the Strypa. Sir John Simon resigns from
Cabinet on the compulsion issue.

#### **Book Reviews**

The Practical Conduct of Play, by Henry S. Curtis. Published by the Macmillan Company, Toronto. 327 pages, 29 illustrations. Henry S. Curtis was secretary of the Playground Association of America and is therefore an authority on the conduct of play. After a brief history of the movement in America he gives an interesting description of the construction of a model playground, of the different games played, of the organisation of such games, and of the formation of leagues. Advice is given those who wish to become playground supervisors where they may receive the required instruction. In the closing chapter discipline is dealt with in a very practical way. After describing the offences most prevalent in the playground, he shows the best method which has been found for dealing with those offences. Anyone who desires to supervise the play of the boys and girls in the school yard will find here many excellent suggestions.

J. A. I.

Fields of Fame in England and Scotland, by J. E. Wetherell, B.A., Inspector of High Schools for Ontario. The Macmillan Company of Canada, Toronto. 353 pages; library edition, \$1.00; cheaper edition 50c. This is a book which should find a place in every school library in Canada. At this time it is a particularly interesting book for the general reader as well as for the teacher of history and the student. The author gives us the story (a story strong in human interest and rich in anecdotes) of each of twenty-six of the most important battles fought on British soil. He links the past with the present in a most striking way, when he describes his own experiences and observations on his visits to the scenes of these historic engagements. The teacher of history, in quest of details and incidents to add "life" to his lesson, will find this volume a valuable aid. Boys in the Entrance class and in the High School will read it with avidity.

Lorna Doone. A Supplementary Reader, by R. D. Blackmore. Abridged and edited with introduction and notes for schools by Wm. A. Warren. Cloth, 186 pages. Price 1s. Sampson Low, Marston & Co., London. This would make an excellent book for the school library. The Louise M. Alcott Supplementary Reader. Cloth, 222 pages. Price 1s. Sampson Low, Marston & Co., London. This book contains ten well-written stories suitable for the pupils of Forms II and III.

F. E. C.

## The Penny Bank in the Schools

Circular issued by the ONTARIO DEPARTMENT OF EDUCATION

The Minister of Education is impressed with the importance of the encouragement of thrift amongst school children and has had under consideration the practical assistance given in this direction by The Penny Bank of Toronto.

To teach a child how to economize slender resources, how to resist temptation to needless expense, and how to make reasonable provision for the future, is an important part of its education. Such knowledge cannot be acquired too early in life, and much may be done in a school to render its acquisition easy to children and to show them the advantages of economy and foresight. Economy is, however, a habit, and is to be acquired by practising it, rather than by listening to demonstrations of its importance. The child who is helped to deny himself some triffing personal gratification, who is encouraged to save by degrees a few dollars, and who finds this sum available for his own needs, or perhaps for helping his parents at a time of family misfortune, has received a practical lesson in the advantages of economy and foresight which may make a lasting impression upon him. The value of such a lesson will not be confined to its influence on the pupil's own character and welfare: It will exercise a reflex influence on the members of the household to which he belongs providing them with a practical lesson of lasting value. It will tend to encourage the parents to start Savings Bank accounts themselves, or to assist their children's.

Penny Banks have been established in connection with the schools of most European countries, particularly in the Austrian Schools and in those of France and Belgium. The system has there shown a steady growth during the past thirty years. In England and Scotland the same success has attended the establishment of School Banks wherever zealous and systematic efforts have been made toward the encouragement of saving.

The Dominion Penny Bank Act (R.S.C. 1906, Ch: 31) under which The Penny Bank of Toronto was incorporated stipulates that the deposits of the school children are to be placed with the Receiver-General at Ottawa, thus extending to such deposits the highest possible guarantee. The Act also provides for the establishment of a Guarantee Fund, which must be maintained up to at least \$10,000.00; but it permits no Share Capital, nor any payment of dividends. No subscriber to the funds of the Bank, or to the Guarantee Fund, may receive any return in respect

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of such subscription. The Act also stipulates that no Director of The Penny Bank shall be entitled to receive any fees for services rendered as a Director. In short, the Bank is not a money-making or commercial concern and may make no payments other than those to its depositors except for actual running expenses. School Boards are authorized under an Ontario Act (8 Edw. VII, Ch: 33, Sec. 55) to pay for the necessary supplies of stationery.

The first annual report of The Penny Bank of Toronto, dated the 30th of June, 1906, showed operations in 44 schools in 2 centres from which the deposits amounted to \$50,401.19. The last report, dated the 30th of June, 1913, showed that the Bank was operating in 222 schools in 31 centres including such places as London, Galt, Barrie, Oshawa, Ottawa and Belleville, with total school deposits amounting to \$236,681.68. This excellent showing has not been attained without zealous effort and persistent enthusiasm not only by those philanthropic gentlemen who organized the institution and gave liberally of their time and their money, but also by the school teachers who have given their services and communicated their enthusiasm to the children and by the clerks and managers of the Chartered Banks who have always been ready to serve this truly National Institution.

The Minister desires to express the thanks of the Province to all these voluntary workers for future good citizenship, and particularly his appreciation of the devotion shown by the teachers in those schools where The Penny Bank has been in successful operation. He also desires to call the attention of other School Boards and other School Principals to this Penny Bank System, the details of which may be obtained by application to the Head Office of The Penny Bank, York and Richmond Streets, Toronto. In doing so, however, he wishes to point out that it is not enough merely to establish the system in a school. There must be loyal co-operation and persistent sympathy upon the part of the teachers in order to produce the desired result upon the pupils. If the children feel that the teacher is not in sympathy with the Bank, some few may take the opportunity to exercise a natural thriftiness, but the Bank will fail in its effort to encourage thrift amongst the unthrifty. In short, thrift needs to be encouraged as steadily and persistently as good manners or as any other desirable habit.

The Minister feels no hesitation in making this recommendation to School Boards and Principals, because he is certain that the more general adoption of such a plan will increase the usefulness of the School as an instrument for the formation of character, and because he has every reason to believe that the keen interest which has been shown in the past by all concerned will continue and spread in the future.

### The Rise of Prussia since 1805

G. M. JONES, B.A.
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N the whole the part played by Prussia in the Napoleonic struggle was a very pitiful one. Under her weak, hesitating King, Frederick William III, she patiently suffered insult over the disposition of Hanover, which Napoleon first offered to Frederick William and then proposed to restore to George III of England; then she stood supinely by, while Napoleon defeated Austria and Russia in the battles of Ulm and Austerlitz in 1805. This defeat resulted in the dissolution of the useless, old Holy Roman Empire and the formation in western Germany of the Confederation of the Rhine, under the protection of Napoleon. Then in 1806, when Napoleon was all ready to deal with Prussia by herself, Frederick William declared war. His officers were quite confident of defeating Napoleon. A certain Captain Liebhaber was heard to say at mess: "Napoleon is as certainly ours as though we had him in this hat". Even Blücher expressed his perfect satisfaction with the condition of the Prussian army. But, in reality, its condition was deplorable in the extreme. Its spirit was unwarlike; its chief commands were in the hands of self-satisfied old greybeards, who had outlived their usefulness; the commander-in-chief, the Duke of Brunswick, although brave and experienced, was as weak as the king, when it came to making a decision. It is no wonder, therefore, that Napoleon marched into Germany in 1806, overwhelmed the Prussians at Jena and Auerstädt, and occupied Berlin, whence he issued the famous Berlin Decree. King and his court fled to East Prussia, where the last remaining Prussian Corps joined with the forces of the Czar. But misfortune followed still, and in the battle of Friedland Napoleon was again victorious. Russia was won over to be an ally of Napoleon. Prussia was stripped of more than half her territory, that part west of the Elbe going to make the new Kingdom of Westphalia for Jerome Bonaparte, and most of the Polish provinces going to form the new Duchy of Warsaw for the King of Saxony. A crushing indemnity was exacted from Prussia, 160,000 French soldiers were stationed in the country, and she was forbidden to keep an army of more than 42,000 men.

But, at the moment of greatest humiliation, a reformation was begun which in the end enabled Prussia to throw off the yoke of the oppressor. To take charge of affairs, Frederick William called in Baron Stein, "a stern, terrible, yet very just official, who had never learned to cringe to royalty". This man, with the support of the King, and the assistance of such talented, patriotic men as Scharnhorst, Hardenberg, Blücher, Arndt, Fichte and Gneisenau, began a thorough social, educational, economic and military reformation. Serfdom was abolished. Artificial class distinctions were abolished, and not only might any citizen buy land or engage in any occupation he wished, but a peasant might pass into the citizen class. Cities were given self-government. The army which had shown up so badly at Jena, was thoroughly reorganized. Incompetent commanders were dismissed, and of 143 generals only seven were retained; luxuries for the officers were curtailed; the treatment of the common soldier was much improved; finally, the army was thoroughly trained. Not least important, there spread among the Prussian people a glowing patriotism that made them ready for any sacrifice. And all of this was accomplished while the country was ground down by French indemnities, and while her fortresses were held by French garrisons.

Stein thought the opportunity to strike had come in 1808, when the Peninsular War was engaging the attention of Napoleon; but it was not until the terrible Russian campaign of 1812 had almost annihilated Napoleon's grand army that the hesitating Frederick William was finally driven by Russia, England and his own officers into declaring war on Napoleon in March, 1913. Nothing could exceed the enthusiasm and self-sacrifice of the Prussian people when the King appealed for their help. "Whole classes from the universities, professors at their heads, adjourned in a body to the recruiting ground". Voluntary gifts of every kind were made, and after this war it was a disgrace to be found in possession of jewelry or silver plate. One hundred and fifty thousand

persons even exchanged their wedding rings for rings of iron.

The Russian, Austrian, Swedish and Prussian forces gathered around Napoleon near Dresden, and finally defeated him thoroughly in the Battle of the Nations. Then they followed him into France. The allies were quarrelling fiercely, but, mainly through the dogged perseverance of Blücher, "le vieux renard" as Napoleon called him, the allied force was finally led into Paris, and Napoleon was forced to abdicate. When Napoleon came back from Elba, it was the same old Blücher, who at times was crazy, and believed he had a beast in his body, who came to the aid of Wellington at Waterloo, and helped to complete the final overthrow of Napoleon.

At the Congress of Vienna, which met in 1814, and again in 1815, Prussia made important gains. She got important territories on the Rhine and, in return for the Polish territories she had lost, half of the Kingdom of Saxony. As for Germany, it was once more organized

as a loose confederation with Austria at the head.

The accompanying map illustrates the peculiar composition of this German Confederation. Besides a large number of smaller states, such as Bavaria, Baden, Würtemberg, Hesse and Hanover, it included a part of Prussia, a part of the Austrian possessions and a part of Denmark. Austria and Prussia were the leading states, and it was inevitable that



## CENTRAL EUROPE 1815-1866

in time a keen rivalry should grow up between them for leadership. In such a confederation there could be no real unity. It was governed, nominally, by a Diet which was composed of representatives of the princes whose territories lay, in part or in whole, within its boundaries but the individual states were really independent. Yet, in spite of the

absurdity of its composition and government, this German Confederation lasted, with one slight interruption, down to 1866.

From 1815 to 1848 Germany went through a period of political stagnation and repression. Metternich, the Austrian Chancellor, was determined that liberal ideas should be thoroughly suppressed, and even boasted that modern scientific ideas had been barred from Austria. A strict press censorship was established, the general students' union in each university was abolished, the professors were watched, and a special commission was appointed to investigate revolutionary conspiracies. This commission went so far as to declare that Arndt, Stein, Gneisenau, Blücher, York, and other patriots and saviours of the period of regeneration had "caused, encouraged and furthered revolutionary strivings, though possibly without intent". Reaction was complete in Austria, but liberal ideas managed to survive in the rest of Germany, particularly in the south German states, where the influence of the French Revolution had been very strong. The rulers of Weimar, Bavaria, Baden, Würtenberg and Hesse gave their people constitutions defining their rights, and admitting them to a share in government by establishing parliaments. In Prussia the liberal elements were insistent in their demand for reform, but could not move their King without actual revolution

During this period a momentous change was made in the fiscal relations of the German states. In 1818 Prussia established a single tariff for all her various provinces in place of the sixty-seven that formerly prevailed, and then invited the neighbouring states to become partners in her new system. By 1842 all the states of Germany except Austria, Mecklenburg and Hanover had joined, and Prussia had become the head of a great Customs Union, or Zollverein, which really united the German states far more closely than the absurd German Confederation, and which foreshadowed the present German Empire.

In the year 1848 revolution was rife in Europe. The principles underlying the Declaration of the Rights of Man were accepted by the liberal parties which had come into existence in every state in western Europe. The national spirit, which had been awakened during the Napoleonic period, had been at work for nearly half a century. Moreover, the Industrial Revolution was quickening the thought and stirring the aspirations of the industrial classes. England just escaped serious trouble, but France, Belgium, Switzerland, Italy and the different states of Germany all had their revolutions or other violent disturbances. The trouble was particularly acute in the Hapsburg possessions. Metternich, the inveterate enemy of all change, fled to England; the Emperor was obliged to grant or promise constitutions to his varied possessions; in Italy a determined effort was made to throw off the Austrian yoke.

In southern Germany the rulers were compelled to grant reforms at once. In Prussia, the King, Frederick William IV; after submitting to the most humiliating treatment at the hands of the Berlin mob was forced to call a national parliament to revise the constitution. Finally, however, with the aid of his army, the king was able first to dismiss this parliament, and then to impose on his people his own constitution, practically the one under which Prussia is now governed. A Prussian army was used to restore order in Saxony and Baden. In the Austrian possessions the Emperor and his ministers finally got the upper hand once more. A National Assembly which had been convoked at Frankfort to draw up a new constitution for all Germany, was a failure, partly because of the unwise conduct of its radical members, and partly because of the jealousy between Prussia and Austria over the headship of the proposed new empire. An effort of the Prussian King to form a union of the north German states under Prussian leadership failed because of the determined opposition of Austria. Finally, the old loose, ineffective German Confederation under the leadership of Austria was re-established in 1850.

Austria triumphed in 1850, but it was her last triumph. It was increasingly clear that Prussia would soon challenge her supremacy. Just at this time a man was coming into prominence who had the ability and the determination necessary to give Prussia the first place in Germany. Otto von Bismarck's services to the royal house of Prussia began in 1847, when he became a member of the Prussian Landtag. When he heard in the next March of the humiliation of the monarch at the hands of the Berlin mob, he first wrote to the king to express his sympathy, and then a little later presented himself in person at the court. From that time on, he strove to maintain the dignity of his sovereign, to save as many royal prerogatives as he could, and to make Prussia the head of a new German Confederation. For a number of years he was Prussia's representative in the Diet of the Confederation. Later still, he was Prussian ambassador at St. Petersburg. Finally, in 1861, in the midst of a great crisis in Prussian affairs, he was made chief minister by William I, grandfather of the present Emperor.

(To be continued).

A reference from a young man's college president reads: "He was a good student, but full of mischief. I cannot recommend him."

A prospective employer said: "I will hire him on that reference alone."—American School Board Journal.

<sup>&</sup>quot;Well, my boy," said the solemn visitor, "I suppose you expect some day to step into your father's shoes."

<sup>&</sup>quot;Oh, yes, I suppose so," the boy gloomily answered. "I've been wearing out all his old clothes ever since mother learned how to cut 'em down."

## Notice to Continuation School Boards

Circular issued by the
ONTARIO DEPARTMENT OF EDUCATION

In the note to Regulation 3 (3), page 43, of the Continuation School Regulations of 1914, it is announced that "it is not the policy of the Department to approve of the maintenance or establishment of Continuation Schools with more than two teachers. Localities able to maintain such schools should establish them under *The High Schools Act*."

In pursuance of this policy, the Minister hereby announces that after September 1st, 1916, the General Legislative Grants to all Grade A Schools, now established or to be hereafter established, will be apportioned on the same bases as are the General Grants to High Schools with the same number of teachers; and, that as a necessary part of this provision, the Regulations in regard to the accommodations and equipment of High Schools shall apply to Grade A Continuation Schools also. While, however, after September 1st next, the Grants on accommodations and equipment will be based on said High School Regulations so far as they are complied with by the Grade A Schools, the date at which the High School Regulations shall be fully complied with will be determined by the Minister in accordance with local conditions.

In most cases, the Grants to Grade A Schools under the changed conditions will be smaller than heretofore; but whereas a Continuation School Board can claim taxes only from the supporters of such School, it will be seen on reference to Sections 37, 38 and 39 of *The High Schools Act*, that a High School is supported by all the ratepayers of the High School district, and that, when the High School is in an organized county, the county and the adjacent counties are liable for their share of the cost of maintenance. Accordingly, when any Continuation School requires three teachers, the Minister recommends its Board to make application under Sections 7 and 8 of *The High Schools Act* for the establishment of a High School.

January, 1916.

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#### HER DISTINCTION.

A teacher asked her class in spelling to state the difference between the words "results" and "consequences."

A bright girl replied: "Results are what you expect, and consequences are what you get."—Harper's Bazaar.

## The British Navy\*

J. O. CARLISLE, M.A. University of Toronto Schools.

Fig. I. Dreadnought—First "All-big-gun" ship. Built 1906; 17,900 tons; 520 ft. long; 23,000 h.p. Parsons' turbines, speed 21 knots. Armament: ten 12 in. guns mounted in five revolving turrets so placed as to give a broadside fire of eight, and ahead or astern fire of six guns. She has also a battery of twenty-four 12 pounders. There are five submerged torpedo tubes (shaded in illustration). Vitals and gun positions are protected with armor 11 in. thick. She has bunkers for 2,700 tons of coal, a complement of 800 officers and men and cost £1,800,000 to build.

Fig. II. Agamemnon and Lord Nelson—built 1907—a hybrid class called "semi-Dreadnoughts"; 16,500 tons; 410 ft. long; 16,500 h.p.; speed 18 knots. Armament: four 12 in., ten 9.2 in. guns all mounted in armoured turrets; twenty-four 12 prs. Armour 12 in. on all vital parts. Broadside four 12 in., five 9.2 in. Great defect of these vessels is that there is scarcely elbow-room in the 9.2 in. turrets and therefore these guns cannot be worked to their capacity. Complement 750 men; cost £1,650,000.

Fig. III. Bellerophon Class—Bellerophon, Téméraire, Superb. Built 1909; 18,900 tons; length 490 ft.; 23,000 h.p., speed 22 knots. Armament: ten 12 in. guns in five twin turrets; broadside, eight 12 in.; ahead or astern fire, six 12 in. Armor 11 in.; Fuel (coal and oil) 2,700 tons: 800 officers and men: Cost £1,700,000.

Fig. IV. St. Vincent Class: Vanguard, St. Vincent, Collingwood. Built 1910; 19,250 tons; 500 ft. long; 24,500 h.p.; speed 21 knots. Main battery ten 12 in. guns of very powerful type. Armour 10 inches; Fuel (coal and oil) 2,700 tons; Crew over 800 officers and men; Cost £1,700,000

Fig. V. Neptune Class: Colossus, Hercules, Neptune—Built 1911; 20,000 tons; 510 ft. long; 25,000 h.p.; speed 21 knots; Main battery ten 12 in. guns—each 50 ft. long. Reference to the diagram will show that all ten may be fired over either broadside within a limited arc, eight guns can be fired astern and six ahead. In this class the "super-barbette" appeared for first time (vid. diagram showing one pair of guns at stern raised above the other pair). Armour 11 in.; Fuel (coal) 2,700 tons; Complement 800 men; cost £1,700,000.

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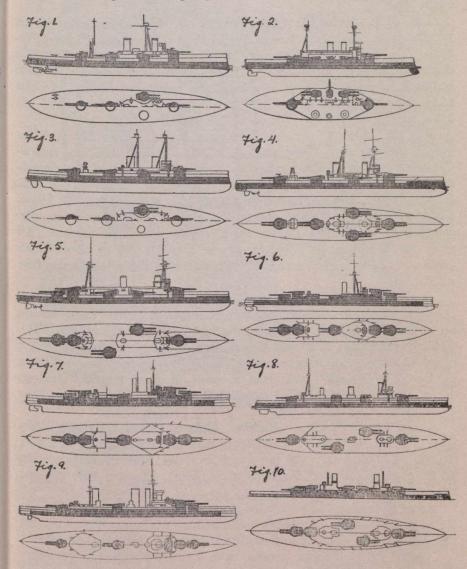
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<sup>\*</sup>The illustrations in this article are from "The Fleets at War," by Archibald Hurd: The Houghton Mifflin Co., Boston.

Fig. VI. Orion Class: Orion, Monarch, Conqueror, Thunderer—First of the "Super-Dreadnoughts". Built 1911-12. Displaced 22,500 tons; 545 ft. long; 27,000 h.p., speed 24 knots; Main battery ten 13.5 in.

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guns; firing a 1,250 lb. projectile at the rate of two per minute. These guns are mounted in five twin turrets all on centre line and all can be trained on either broadside. Armour-belt 11 to 12 in. thick; Fuel capacity 2,700 tons coal and oil; Complement 900; cost £2,000,000.

Fig. VII. King George V Class: Erin, King George V, Ajax, Centurion, Audacious; Built 1913. Displacement 25,000 tons loaded; 596 ft. long; 27,000 h.p.; speed 21½ knots. Armament, etc., similar to Orion class.

Fig. VIII. Invincible Class: Invincible, Inflexible, Indomitable, Indefatigable, Australia, New Zealand (slight differences). Built 1909-1913. These were the first group of Battle-Cruisers to be built. The displacement is from 17,500 to 19,000 tons; length about 550 feet; 41,000 h.p., speed 25 knots or more. The armament consists of eight 12 in. guns in four double turrets. Armour-belt 7 in. Fuel (coal and oil) 2,500 tons; Complement 790; cost £1,500,000.

Fig. IX. Lion Class: Lion, Princess Royal, Queen Mary, Tiger (slight differences). Completed 1912-1914. These also are Battle-Cruisers—combining the strength and fighting powers of the Dreadnought and the speed of the Cruiser. Displacement 27,000-28,000 tons. Length 660 ft. Engines 70,000 to 100,000 h.p.; speed at least 28 knots. Main armament ten (Tiger, eight) 13.5 in. guns all on centre line, discharging projectile 1,400 lbs. in weight at rate of two per minute. All guns can be trained on either broadside. Fuel is coal or oil of which 3,000 to 4,000 tons can be carried. Complement about 1,000 men; cost £2,200,000.

Iron Duke Class: Iron Duke (Flag ship of Sir John Jellicoe), Marlborough, Emperor of India, Benbow—Completed 1914. These vessels are essentially similar in design to the King George V Class (Fig. VII). Their displacement is 27,000 tons loaded; length 645 ft; 29,000 h.p.; speed 22 knots. Armament: ten 13.5 in. and twelve 6 in. guns besides a battery of high-angle quick firers to ward off aerial attack. Armour 12 in. thick on vitals. Fuel capacity 3,000 tons. Complement over 1,000 men. Cost £2,000,000.

Queen Elizabeth Class: Barham, Malaya, Queen Elizabeth, Warspite, Valiant, Agincourt\*—Completed 1914-15. Plans similar to above. Tonnage 27,500, length 620 ft.; speed 25 knots; Main armament eight 15 in. guns (Agincourt\* fourteen 12 in. guns). Armour belt 13½ ins. Complement about 1,000 men.

Royal Sovereign Class (now building)—Royal Sovereign, Royal Oak, Revenge, Resolution, Ramillies (no reliable details can be given but these vessels are probably essentially similar to the last class described.)

Note: All the above vessels have secondary batteries of about twelve 6 in. guns, a number of 4 in. for warding off torpedo attack, and 3 to 5 submerged torpedo tubes.

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<sup>\*</sup>Agincourt—Originally laid down as the Rio de Janeiro for the Brazilian government; she was purchased by Turkey and was on the point of leaving for Turkish waters under the name of Osman I at the outbreak of the war, when she was taken over by the British Admiralty.

Kaiser Class of the German navy is illustrated to show a common characteristic of German Dreadnoughts. It will be noted that

INTERIOR VIEW OF BARBETTE (Shewing how worked, and Method of Ammunition supply to Guns inside).

Sighting Hood. Armoured Barbette. Working Levers for Gun Mechanism. Pair Quick-firing Guns.

Hydraulic Charge Rammers.

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Hydraulic Charge Rammers.
Pair 13-5 Guns.
Breech of Gun.
Breech of Gun.
Machinery for working Barbette.
Machinery for working Barbette to below waterline.
Continuation of Armour from Barbette to below waterline.
Shaft. no which Shells are holsted by lift to Guns. 10

Shaft, up which Shells are hoisted by lift to Guns. Powder Magazine.

Ditto.

15 Carrier which conveys Powder up to Gun. 16 Shell on hoist for conveyance up to Gun. 17 Pivot on which Barbette revolves. 18\_Shell Magazines.

04)—Albermarle, Cornwallis, Duncan, tons; 19 knots.

eight of their big guns can be trained over the stern and only six over the bow, a feature which, with their speed of 24 knots, fits them particularly for fighting as they run. They mount as a secondary battery fourteen 5.9 in. and twelve 21 prs. in an armoured house, not in casemates as on nearly all British ships.

Besides the above "Dreadnoughts" there are on the active list "Prethe following dreadnoughts":-

King Edward VII Class: Completed 1905-06: Africa, Britannia, Commonwealth, Dominion, Hibernia, Hindustan, King Edward VII (sunk), Zealandia. Tonnage 16,350, speed 18 knots. Armament four 12 in. guns (herein lies the essential distinction between Dreadnoughts and all their predecessors), four 9.2 in.; ten 6 in.; fourteen 12 prs.; fourteen 3 prs.

Swiftsure Class (1904)

-Swiftsure, Triumph.

Duncan Class (1903-

Exmouth, Russell; 14,000

Formidable Class—(1901-02): Bulwark, Formidable, Implacable, Irresistible, Queen, Prince of Wales, London, Venerable. 15,000 tons; 18 knots. (First vessels to use Krupp steel armour).

Canopus Class (1899-1902)—Albion, Canopus, Glory, Goliath,

Ocean, Vengeance; 12,950 tons, 18 knots.

Majestic Class (1895-98)—Caesar, Hannibal, Illustrious, Jupiter, Magnificent, Majestic, Mars, Prince George, Victorious; 14,900 tons; 17 knots.

The Cruiser—This is the largest genus in the navy and its rôle has become so widely extended of late years by the remarkable development of its combatant qualities that it is extremely difficult to define its exact metier. The Cruiser's principal function still remains her original one—that of acting as the "eyes" of the battle fleet in war or as the "policeman of the seas" in peace. Her chief feature is mobility and, with the exception of the largest or "capital-ship" cruisers as they are called, she is not designed for fighting save against ships of her own type. But modern development, as has been said, has extended these limits to within the scope of the battleship—as witness the Queen Mary and Lion groups. It is a far cry from the little Pelorus type (1897) of 2,135 tons to the Minotaur type (1909) of 14.600 tons and vet the gap is bridged by a great number of intermediate groups, all having similar characteristics: first, mobility: the Arethusa class of 1914 can steam at a sustained speed of 29 knots; second, relatively small resisting power; the Minotaur has a narrow belt of 9 in armour, but the remainder is practically unprotected against the fire of heavy guns; the heaviest armament is four 9.2 in. guns and on most classes of Cruisers the heaviest gun is the 6 in. breech-loading rifle. The big guns are mounted in radial houses which can be turned through nearly a full arc or in "sponsons"-semi-circular projections beyond the ship's sides. The small quick-firers are mounted behind shields which turn on a pivot with the gun, thus affording protection to the gun-crew no matter in what direction the gun is pointed.

The Scout—is a small fast protected cruiser of little or no fighting value designed to dart about a war zone, and transmit tidings of the disposal and size of an enemy fleet. There are two groups of Scouts on the effective list—the "Attentive" class (to which the Pathfinder belonged) and the Boadicea class (to which the Amphion belonged) numbering in all 15 ships.

The Sloop—is a small auxiliary vessel rigged as a barque so that on long patrols she can cruise under canvas. There are a dozen of these vessels dating from 1898-1903, one of which was the "Condor" which, when on the Pacific station, disappeared mysteriously, leaving not a ingle survivor to tell the tragic story.

Torpedo Craft of all designations have been aptly termed the "mosquito" fleet. They include torpedo gun-boats, Destroyer-destroyers, Destroyers, Torpedo boats and Submarines (which last term as far as concerns the British Navy is a misnomer, the correct name being "submersible"). Torpedo gun-boats or Destroyers of destroyers as a distinct class is the result of abnormal development of the destroyer. The largest boat of this type is the Swift (1910) of 2,170 tons with engines of 30,000 h.p. The "Tribal" Class of 1911 average 875 tons and most of them can maintain a speed of 35 knots for a period of over six hours. It is impossible to fix a dividing line between the above class and ordinary Destroyers, the function of which is sufficiently indicated by their name. They average 225 ft. long, are armed with about two 4 in. and four 12 prs. besides two torpedo tubes. The torpedo boat is a babydestroyer. Her mission is harbour and coast defence work and therefore she does not require sea-going qualities. They vary in size from the "Lightning" (1877), 75 ft. long to the No. 31 class (1908), 180 ft. long, 280 tons, two 12 prs., three torpedo tubes, speed 26 knots.

Great Britain was, with the exception of Germany, the last naval power to adopt the submarine. Down to the end of 1900 we had none of these craft, by the end of 1913 we had eighty-four. They are divided into six classes lettered A to F. The A class belong to the years 1904-06, displace 200 tons, are 100 ft. long, have a speed on the surface of 12 knots and submerged 9 knots. The F. class displace 1,000 tons, develop a speed of 20 knots on the surface and 12 knots submerged, have six torpedo tubes and two disappearing 3 in. guns as well as a complete wireless set. They are propelled on the surface by oil engines of 5,000 h.p. and when submerged by electric engines (since oil engines would poison the air) driven by storage batteries charged by the oil engines when running on surface.

War Maps

The following war maps are published by W. & A. K. Johnston, 9 Paternoster Building, London, E.C.:—

(1)	War Map of Europe		6d.
(2)	Belgium and North-East France		6d.
(3)	Dardanelles and Bosphorus		6d.
(4)	The Eastern Campaign 1914-15	1s.	6d.
(5)	The Western Compaign 1014	1 -	CI

These are all very fine maps. The two that should prove most useful to Ontario schools are (4) and (5), the former giving excellent details from Paris to Berlin and the latter showing the eastern line from the Gulf of Riga to Rumania. The latter also has the battle line marked distinctly for three different periods during 1915. Both these maps have the railroads and rivers distinctly marked and the different elevations are indicated by different colours.

G. A. C.

### Teachers and Boards

EXTRACTS FROM A RECENT CIRCULAR

issued by the
ONTARIO DEPARTMENT OF EDUCATION

Difficulties, sometimes of a serious nature, have arisen from the absence of or from defects in the agreements between boards and teachers, and boards have too often employed teachers who are not legally qualified. That there may be no mistake, the Inspector should inspect the teacher's copy of the agreement when next he visits the school, and if a written agreement has not been made or if there are defects in the one that has been made, he should see that the necessary steps are taken to comply with the Schools Act.

In order to facilitate the work of organization by the new teacher, the Inspector should remind each teacher that the Regulations now require that, if he vacates his position at any time, he shall leave in the school register, for use by his successor, the last time-table of the school, with a statement of the stage of advancement in each subject of each grade.

The Minister cannot too strongly urge upon the Inspectors the necessity for personal interviews on school matters with Trustees. Many misunderstandings that have arisen from time to time might have been avoided had the difficulties been met in this way; and, especially, when local disputes arise, the prompt appearance of the Inspector upon the ground and his tact in dealing with them will often prevent difficulties from becoming unmanageable without recourse to coercive measures. Moreover, it is unwise for the Inspector to rely upon his official reports alone to secure improvement in school conditions.

Inspectors of Public and Separate Schools are also reminded that they have no authority to inspect the work of pupils in private schools for Part I or Part II of the examination for admission into the High Schools. Such pupils are required to take the written examination prescribed therein for both Part I and Part II.

In conclusion the Minister embraces with pleasure this opportunity of expressing his appreciation of the services of the Inspectors. Their office is an important one and their duties, he is well aware, are arduous. On them devolves a large part of the local administration of the Provincial Primary School System, and to them in particular is, accordingly, due much of the progress that has been made therein.

Department of Education, December, 1915.

### India and the War

D. E. HAMILTON, M.A. University Schools, Toronto

"Is there aught you need that my hands withhold, Rich gifts of raiment or grain or gold?

Lo! I have flung to the East and West Priceless treasures torn from my breast, And yielded the sons of my stricken womb

To the drum-beats of duty, the sabres of doom."

All this India has done for the Empire in its hour of need. An emphatic answer has been given to those who believed that sedition and disloyalty were characteristic of the Indian peoples. No portion of the Empire has proven itself more devoted. India has shown the world in a manner that admits of no contradiction, that to her mind British rule is best. Further, she has shown her readiness and capacity to bear her share of the responsibilities of the Empire. Her attitude is not that of a conquered people, held in subjection, but rather that of a free member of the Empire discharging her Imperial duties gladly and willingly. Here, as in South Africa, British justice has forged a link in the chain of Empire which the strain of the greatest war in history has been unable to break.

Scarcely had war been declared when the rulers of India began to pour in offers of the entire resources of their States and of their personal services to the Government. The Nizam of Hyderabad offered \$2,000,000. In addition, he defrayed the expenses of his own personal regiment, the Imperial Service Lancers, and those of the Twentieth Deccan Horse. The Maharajah of Mysore offered \$1,650,000 for military purposes. The Maharajah of Gwalior gave large amounts of money to provide remounts, and fitted out a Motor Ambulance Corps at his own expense. These are typical of the offers made by the rulers of Indian states to the Government. The seven hundred rulers of India were loyal to Britain to a man.

The people of India were just as eager to help. At a meeting of the Viceroy's Legislative Council, Sir G. Chitnairs aroused great enthusiasm by his motion offering the united support of the Indian peoples to the Empire. The motion was seconded by one of the chief Mohammedan leaders, the Rajah of Mahmudabad, and passed the Council without a single dissenting voice. The people's representatives were for Britain.

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Even those leaders of malcontents in India, who had previously done all in their power to arouse the people against British rule, were converted into loyal British subjects by the danger threatening the Empire. No more striking instance of this can be given than the case of Tilak. This man had been imprisoned twice for sedition, and had been released from a four-years' term just prior to the outbreak of war. Tilak's first act was to deliver a speech in Poona, calling upon the people to give the Government their whole-hearted support, and declaring vehemently that the presence of British rulers in India was desirable from the viewpoint of Indian self-interest.

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This strong pro-British spirit was not confined to the States of British India. From all the border states came offers of help. The Prime Minister of Nepal offered the military resources of his State. The Dalai Lama of Tibet offered a contingent of 1,000 men, and ordered special prayers to be offered for the success of the British arms. The chiefs of Beluchistan made valuable offers of camels. The Maharajah of Bhutan offered the financial and military resources of his state. Striking proofs of friendship to Britain were received from the Ameer of Afghanistan.

So convincing were the proofs of loyalty given by the people of British India and the adjoining states, that it was possible for the Viceroy to withdraw many of the soldiers doing garrison duty throughout the country. 70,000 troops were sent from India to France in September, 1914, and arrived in time to give needed assistance in stopping the German rush to Calais. Since then, great numbers of troops have been drawn from India. To-day, at least 250,000 Indian soldiers are fighting for the Empire, in France, in Mesopotamia, at the Suez, in China, in East Africa.

In many other ways India has been most active in helping carry on the war. Three hospital ships, equipped and maintained from private sources, were put in commission in 1915. One of these was wrecked on its way to the Persian Gulf, the other two have been steadily employed in carrying sick and wounded between India and the various theatres of war. Large sums have been given for the purchase of aeroplanes, machine-guns, motor-ambulances, and other equipment.

These magnificent services rendered by India to the Empire will surely win for her a higher place in it than she has yet held. Will not India demand as a right that full measure of self-government which so far has been denied her? Will it be possible for Canada or Australia to bar the doors to the Indian people as we have done in the past? Must we not realise that the sons of India who have fought for the Empire are our blood-brothers and are entitled to corresponding treatment?

## Hints for the Library

An Introduction to Science, by Bertha M. Clark. 494 pages. Published by the American Book Company of New York. This volume deals with all the sciences usually taught in the secondary schools, physics, chemistry, botany, zoology and physical geography and its value largely depends on the value of presenting such a course to a young boy and girl. Such a book is largely valuable for the information it gives as the whole endeavour of the volume is to give explanations and descriptions of the physical phenomena that everybody meets. Whether such a book supplies the best kind of introduction to science largely depends on whether a narrow field treated scientifically or a wider field treated superficially is going to produce the best results. The reviewer is inclined to favour the former, as the facts in both cases will be largely forgotten and the training in careful scientific method lends itself to treatment better with the small field thoroughly done. The book itself is an excellent one for the field which it covers. It groups all the sciences around certain interesting phenomena. There are a good many books of this type now published but I know of none superior to this one.

G. A. C.

Spindrift, Salt from the Ocean of English Prose, edited by Geoffrey Callender, M.A. 417 pages; price 3 shillings. The Cambridge University Press, London. The editor has selected from the works of the masters of English prose extracts descriptive of the sea and sea-faring life. Some of these are:—Boxing the Compass, by John Lyly; The Revenge, by Raleigh; Alexander Selkirk, by Steele; Officers of "The Fleet", by Goldsmith; New England Fishers, by Burke; The Peggottys at Home, by Dickens. All are excellent types of English literature, all bring the reader into touch with the sea and those who "go down to the sea in ships", almost all will be read with interest by boys of High School age. This is a very good volume for the High School library.

Rivals for America, selections from Francis Parkman's "France and England in North America", compiled by Louise S. Hasbrouck. 233 pages. Price 60 cents. Little, Brown & Co., Boston. A very good reader for the school library. Public School pupils will enjoy it as a supplement to their text.

Chemistry in the Home, by Henry T. Weid. 385 pages, published by the American Book Company. This text stresses very strongly the technical side of chemistry and deals with the theoretical part of it only in a brief manner. The Canadian teacher will find many topics discussed in it that are not usually studied in any of our chemistry courses. A good deal of matter on heat would be much more suitable for a text in physics than for one in chemistry; but there seems to be a great tendency in American texts to mix physics, chemistry, physiology and geography into a more or less connected or disconnected mass and call it either chemistry or general science. This book has many remarkably good chapters on manufacturing and metallurgical processes though a good deal of it has little relation to chemistry. However it is stimulating reading and very interesting as well and would be a very interesting book for supplementary reading in chemistry to be used by Canadian boys and girls.

G. A. C.

The Surface of the Earth, by Herbert Pickles. 107 pages. Published by Cambridge University Press. This is a reader in physical geography suitable for Public School pupils in the third and fourth books and it is a good example of what a geographical reader should be. There is a large field covered in a thorough manner, which sustains interest without indulging in kindergarten devices. The illustrations are excellent.

## The Overseas Dominions and the War—Australia and New Zealand

H. A. GRAINGER, B.A. University of Toronto Schools.

### Australia and New Zealand

Australia and New Zealand from the beginning played their part in the war with vigour and wholeheartedness. Their enthusiasm rivalled those of

the Mother Country, and their direct and practical methods gave promise of valuable developments in the governance of Empire. It must be said of the Dominions generally, that their military strength was unorganised, although potentially it was fully half that of the Mother Country.

No such risks had been run with the preparations on sea. The Australian Navy, purposely kept at greater strength than that of Germany in the Pacific, was ready to take its station in the Admiralty's prearranged plans. The ships were maintained at an efficiency bordering on complete mobilisation, and their part in the event of war had been mapped out in detail.

### In the South Pacific

Australia is rightly proud of the fact that she alone of His Majesty's dominions, has been able to place at the disposal of the Admiralty an effici1

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ent, self-contained, adequately trained and organised naval force, which has fulfilled all the previously formed expectations that it would prove itself able to render valuable service on behalf of the Empire in the time of war.

Not until November did the main expeditionary force—carried by a flotilla of about forty transports under the protection of British, Australian and Japanese warships—proceed towards the chief theatre of war. While crossing the Indian Ocean, the cruiser Sydney was detached to fight and destroy the Emden.

The Emden, commanded by Captain Karl von Müller cruised the Indian Ocean and South Pacific for three months destroying twenty-five merchant vessels worth \$25,000,000 without their cargoes, firing the oil tanks at Madras, sinking four British steamers in Rangoon harbour, and stealing into the harbour of Penang, disguised by the addition of a false fourth smokestack, to sink the Russian cruiser Jemtchung and the French torpedo boat Mousquet. Again and again powerful warships were on the Emden's trail, but each time she escaped. One day

Captain Müller decided to destroy the wireless station at Cocos Islands southwest of Java. There the Emden was discovered by the Australian cruiser Sydney and driven ashore in flames on November 9th, 1914, after a sharp battle.

It was not surprising that this incident which ended the romantic and destructive career of the Emden, should have attracted world-wide attention. As an historic event in Imperial development the incident cannot be overrated. An Australian ship, paid for by Australia and manned largely by Australians, has received its baptism of fire, and emerged from the ordeal by performing a truly Imperial service.

The presence in the South Pacific Ocean of the battle cruiser Australia has been responsible for the comparative immunity of British merchant vessels and the whole of the British possessions in those waters. The knowledge that the Australia was in the Pacific forced the Scharnhorst

and Gneisenau to keep at a discreet distance.

If the Australian vessels have been indispensable in protecting trade routes and safeguarding the dominions of the Crown from menace, they have been equally active in removing every vestige of the German Colonial Empire in the Pacific. The first German possession to be occupied was Apia, the chief town of the Samoan Islands (where R. L. Stevenson lived and died). The New Zealand Expeditionary Force convoyed by the Australia and the Melbourne, before August was out, had hoisted the British flag here, and in New Britain, Nauru, the Carolines and Marshall Islands. This force is now acting as garrison.

So efficiently were the trade routes protected that the German Navy was unable to interfere with a single British ship in the South Pacific. Our commerce proceeded as in times of peace, except for the variations in routes; and the strong German squadron could do no more damage than a "thorough" but easily remedied disturbance of the Pacific Cable Board's station on Fanning Island. When this scourge was removed H.M.A.S. Australia took her place among her sister ships in Admiral Beatty's battle-cruiser fleet, leading the second squadron, and the light cruisers, torpedo craft and submarines filled their respective roles.

In Egypt

Meanwhile the main expeditionary force was being assembled and trained. It was ready to sail in September, but owing to the continued elusiveness of von Spee's squadron in the Pacific there were many delays, and it was not until November that the New Zealanders and Australians foregathered at Albany, W.A., and proceeded towards the main theatre of war. By the time the force reached the Red Sea a new problem had arisen by the entry of Turkey into the war. The Australasians were consequently disembarked in Egypt as a precaution against a Turkish invasion and a

possible rising of the Egyptian population. Throughout the winter they trained hard and faithfully in their desert camps near Cairo.

In the incursion of the first week of February the Turks were easily repulsed. The Suez Canal is not only the equivalent of a broad and deep river, but it is navigable for warships, and its banks provide superb opportunities for defence. It has a width of over 200 feet, and the banks in most places rise at an angle of thirty degrees to a height of 40 feet. On its western shore a lateral railway runs the whole way from Port Said to Suez, connecting at Ismailia with the line to Cairo. Most of the ground to the east is flat, and offers a good field of fire to the defenders on the west bank, or to ships in the channel.

The Turks officially described the main attack as a reconnaissance, and we may accept the description, for it cannot be regarded as a serious invasion. The troops seem to have numbered about 12,000, and to have advanced by the central route up the Wady el Arish. Four hours' journey from the Canal they split into two detachments. One moved against Ismailia, and the second and much the strongest, advanced to a point opposite Toussum, just south of Lake Timseh. The first movement was made on the night of February the second. The Turks had brought a number of pontoon boats in carts across the desert, and these they attempted to launch, along with several rafts made of kerosene tins. Crowded on the shore with a high steep bank behind them, our men mowed them down with rifle fire and Maxims. A few of the vessels were launched but they were soon riddled and sunk. The enemy then lined the high banks, and tried to silence our fire, and the duel went on till morning broke, when the battle became general all along the stretch from Ismailia to the Bitter Lakes. We had a small flotilla on the canal -several torpedo boats, an old Indian Marine transport, and two French guardships. The Turks had a number of field batteries and two six inch guns, which one of the French ships promptly silenced. The torpedo boats made short work of the remaining pontoons. During the afternoon the enemy was cleared from the eastern bank, and by the evening of the third the fiasco was over, and early next morning the canal was crossed in force, and the enemy rounded up. The total Turkish casualty list was well over 2.000.

Gallipoli

But the serious work of the war, which first reconciled the colonials to their disappointment in being withheld from the battle line in Flanders, came towards the end of April. The infantry, which had been considerably strengthened by reinforcements since their arrival in Egypt, were embarked for service in Turkey.

The men waded ashore to Gallipoli in the dawn of Sunday, April 25th, under a hail of fire from Turkish rifles and machine guns, and landing,

went over the hills with such a dash that within three quarters of an hour some had charged over three successive ridges driving the Turks headlong before them. The ridges ran up tier after tier into steep cliffs which seemed to the beholders almost impregnable. Yet they too were stormed and the Turks driven out with the bayonet. The men then dug themselves in while under heavy shrapnel fire. The valor and dash of this magnificent charge was of course attended with the heaviest mortality.

Undoubtedly, nowhere in this great war have the soldiers of the Empire fought from more disadvantageous positions. "The country is broken, mountainous, arid and void of supplies; the water found in the areas occupied by our forces is quite inadequate for their needs; the only practicable beaches are small cramped breaks in impracticable lines of cliffs; whilst over every single beach plays fitfully throughout each day a devastating shell fire at medium ranges". After some months of most heroic effort, with countless cases of wonderful deeds of daring on the part of all the assembled forces, the Gallipoli Peninsula was finally abandoned on January 9th. Fortunately the evacuation was accomplished with but four casualties.

#### NOT IN HIS LIFETIME.

A well-known scientist was lecturing on the sun's heat, and in the course of his remarks said: "it is an established fact that the sun is gradually losing its heat, and in the course of some seventy millions of years it will be exhausted; consequently this world of ours will be dead and, like the moon, unable to support any form of life."

At this juncture a member of his audience rose in an excited manner and said:

"Pardon me, professor, but how many years did you say it would be before this calamity overtakes us?"

The Professor: Seventy millions, sir.

"Thank heaven," was the reply. "I thought you said seven millions!"—American School Board Journal.

Boy-"Dad, I've got to write a composition on burglars to-night. I wish you'd help me."

Father-"No, I'm busy. Go ahead yourself."

The boy begins to write, chews his pencil, looks at the ceiling. Finally, after an hour of this work his head falls on his arm, he is asleep. The father rises, removes the paper that lies under the boy's arm and reads the composition:—"Bugglers is bad things. I don't like bugglers. This is all I know about bugglers."

A teacher wrote to a little girl's mother asking her to see that the child studied her lessons. Next day the teacher inquired: "What did your mother say about the note, Rosie?"

The child replied: "Ma said she didn't know geography an' she got a husband; my aunt didn't know geography an' she got a husband, an' you know geography an' no one will have you."

## The Western Campaign

E. L. DANIHER, B.A. University of Toronto Schools

(Continued from February number).

III. OUTFLANKING MOVEMENTS TO THE NORTH.

On September 12th, the allied forces reached the Aisne, crossed in pursuit and attacked on the whole front. The German wedge, withdrawn from Vitry-le-François and Revigny, still maintained its footing at the south of the Argonne Forest. The French on this same date had successes along the Verdun-Belfort line, occupying several smaller towns. The Germans withstood the attack along the Aisne except in a few places where they gave ground for the purpose of adjustment. No great results were expected; the Germans were extremely well entrenched on the high ground all along the north bank. Their line stretched from the Argonne west, passing north of Rheims, crossing the river near Berry-au-Bac and continuing west, north of Soissons and Compiègne. For the next week fighting went on without any decisive results.

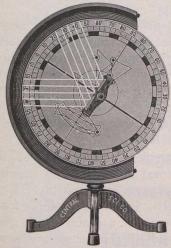
The Germans, thinking they had sufficiently terrorised the people of central Belgium and drubbed the Belgian army, began to draw off reinforcements from their lines of communications for the work in France. King Albert with his army again sallied out for a week's fierce fighting through Aerschot, Malines, and Louvain, and seriously threatened to drive the Germans out of Brussels. A realisation on the Kaiser's part of what the Belgian army was still capable of was no doubt the immediate reason for his demanding that Antwerp be dealt with. The siege of Antwerp, begun on September 26th, was pushed forward with the greatest determination. On this same date the Germans got a foothold on the Meuse at St. Mihiel.

Failing to dislodge the enemy from their strong positions on the Aisne by a frontal attack, the Allies on September 21st began a flanking movement from Noyon on the German left, carrying the line to the north from that point. The opposing forces had each very much at stake. The Allies hoped to join the Belgians, relieve Antwerp and thus hold the foe to the east. The Germans sought to prevent the giving of any such help, to effect the capture of Antwerp and with it, almost inevitably, northwest Belgium to the sea.

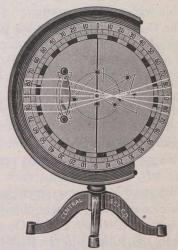
The lines were pushed north very rapidly, ringing around each other like our representation of mountain chains. Cavalry on each side was

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The Germans put a stop to the extension of the lines by means of a large army aiming west, north of Lille. This compelled the northern allied flank to bend away from Antwerp to the west to receive the new opposition on their front. All hope of a successful flanking movement on the part of the Allies was lost when Antwerp capitulated on October 9th, after the Belgian army under King Albert had escaped on October 8th. Part of a brigade of British marines were cut off and fled into Holland where they were interned.

This move of the Germans was a strong one; it bent the allied line to the left, threatened to reach the coast and march on Calais and Dunkirk, and in doing so shut the Belgians up in the north-west corner of their country. To meet this difficulty, Joffre sent a large force to the coast on October 10th. On the next day a junction was effected between the Allies and the Belgians, and the danger greatly lessened. At this time the British forces were being secretly transferred from the Verdun-Noyon line to the Noyon-North Sea front. The transfer was completed by October 19th.

The prize the German Staff was out for was nothing less than the capture of the channel ports—Dunkirk, Calais, Boulogne. In itself this would seem enough to guarantee the exertion of their armies to the utmost. But there was another reason why the German Staff was particularly anxious—the decidedly unfavourable condition of affairs in Poland at the time. They determined to obtain a decision on the western front at all costs. The complete defeat is therefore significant.

The enemy with a considerable quantity of heavy artillery directed his effort at first, October 23rd to November 1st, upon the coast and the country to the north of Dixmude. At the latter place the Belgians were strengthened by a French division. Against superior numbers, better supplied, the allies fought successfully, holding the Germans back from the Nieuport-Dixmude railway except at Ramscapelle. The British monitors were used to good effect. On the 29th the Belgians succeeded in flooding the country between the railway and the canal, occupied by the enemy. On November 2nd the Germans evacuated the inundated territory, leaving cannon, dead and the wounded. The coastal attack had proved a total failure. Since then it has never been renewed seriously.

Quite simultaneously with the struggle at the coast the Germans launched a second attack against the Allies at Ypres, designed to break



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in two the left wing. In point of numbers engaged, the sanguinary character of the conflict and the uncertainty of the outcome, the former dwindles into insignificance. This was the Battle of Ypres. The British were chiefly concerned.

The battle was begun on October 25th and ended on November 13th. The superiority in numbers on the German side was tremendous; British reinforcements were used, as soon as they detrained, at whatever point happened to be weakest at the time. The fighting was renewed with increasing violence daily. The crisis was reached on October 31st.

Sir Douglas Haig, with the First Army Corps, was stationed east of Ypres. Early that morning an aviator dropped down to General French's Headquarters with the startling news that three army corps were moving upon the British First. Soon after a painful message came that the British were retreating rapidly. To make matters worse, Haig's staff was almost completely wiped out when the Germans landed a shell on the house in which they were. French, like Caesar, in his battle near there with the Nervii, constituted himself line-officer as well as general. He rushed in his motor-car to the front. Dozens of times he risked his life while going from one point to another, encouraging, directing and giving personal orders to men who had lost all their leaders. The retreat was stopped and, fired with the elation which comes with such an occurrence, the British did the impossible—by nightfall they had advanced and established the original line.

The battle went on till November 13th but it was really decided on October 31st.

The Germans were urged on by the Kaiser in person. They fought disregarding death. It is said that 40,000 German corpses were counted on the field, and over 110,000 were wounded or taken prisoner. The British lost terribly as well, 50,000 out of the 120,000 engaged. But the line held.

The line was then established which has been the line of conflict from then till now. With the main features of that conflict the next article will deal.

### (To be continued).

Two copy boys on an eastern newspaper were indulging in "words."

<sup>&</sup>quot;You're not so smart as you think you are," one told the other. "I guess they never named no towns after you."

<sup>&</sup>quot;Well, they named one after you, all right," was the retort defiant.

<sup>&</sup>quot;What town is that?" asked boy the second, falling into the trap laid for him and thereby precipitating fistic activities.

<sup>&</sup>quot;Marblehead," boy the first replied.—American School Board Journal.

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Second Prize; Icla Voysey, Stettler Public School, Alberta. Teacher, Miss Evelyn Lees.

Third Prize; Rhea Blowe, Sr. IV, King St. Public School, Oshawa.

Teacher, Miss J. W. Garrow.

Mention for Merit; Grant MacArthur, Blanche Collins, Annie Kincaid, Will J. Shiepy, Anabel Blue, Mildred Irving; Verna Wiegand, Edith Lihon, Ruth Palmer, Lora Lewis; Irene Thompson, Helen Gohien, Luther Bunker, Ella Rogers, Ross Blair, Tom Millar, Margaret Luke, Kathleen Dolan, Phyllis Kenedy, Rita Cowle, Reta Vokes; Norman Chivers.

Awards to High School competitors for drawings of a decorative design suitable for working in embroidery silk on a crash centre piece for a library table.

Prize Winners.

First Prize; Anna McCulloch, Form III, Hamilton Collegiate Institute. Teacher, G. L. Johnston, B.A.

Second Prize; Salva Reaume, Form II, St. Mary's Academy, Windsor. Teacher, Sr. M. Cyrilla.

Third Prize; Teresa Burns, Form III, St. Joseph's Academy, Lindsay. Teacher, Sr. M. Pauline.

Mention for Merit; Estella B. Cline, Queenie Meinke, Jennie B. Blanshard, Dorothy Luhrmann, Lorne Hamilton, Clara McFarlane, Bessie Martin, Bertha Watson, K. Christy, Norma Zimmerman, Wm. S. Aylett; Isabella Muir, Marie Denomy, Eva Walker, Mayme McHugh, Mary Sinclair, Edith Ballard, Pauline Denomy, Frances Lassaline; M. A. Brioux, Margaret Bohn, Blandina Clancy, C. Honlihan, Nellie Brosnan, Irene Curtin, Edna M. Brioux, Elizabeth Gillen, Callista Walsh; Yvonne Tutes, Eugenia Antaya, Marie Martin, Marie Louise Bondy, Marie L. Leframboise, Katherine McCann, Cecilia Bezaire, Della Laforist, Hazel Mailloux, Genevieve Oates, Anita Ong, Elizabeth Monforton, Helen Gagnon, Elizabeth Bezaire, Loretta Crimmius, Estelle Beneteau, Bertha Beneteau.

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It may be of interest to teachers and students to know that the following tests were applied in reaching a decision as to the merits of the respective designs:-

Fig. 1.

Fig. 2.

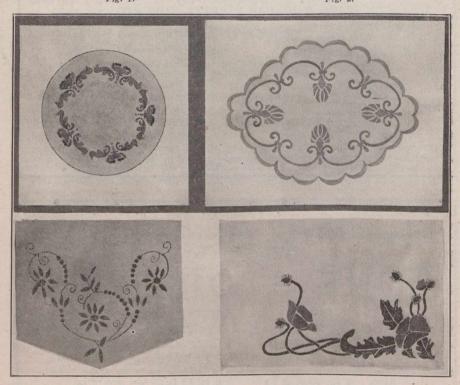


Fig. 1. First Prize: Anna McCullock, Form III, Hamilton Collegiate Institute. Fig. 2. Second Prize: Salva Réaume, Form II, St. Mary's Academy, Windsor. Fig. 3. First Prize: Reta Cormack, Jr. IV, Paisley Public School. Fig. 4. Second Prize: Icla Voysey, Stettler Public School, Alta.

- (1) Is the design suitable for the proposed use?
- (2) Does the design show good conventionalization of the natural form chosen as a motive?
- (3) Is the colour scheme of the design appropriate and harmonious?
- (4) Does the design show neatness and skill in execution?

Note: Under Public School Prize Winners in the results published in the February number, the winner of the third prize was John Newell (not Russell), Cream Hill Mine Public School.

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### Notes and News

[Readers are requested to send in news items for this department].

J. W. Forrester, M.A., of Smith's Falls Collegiate Institute has been appointed Inspector of Public Schools for Dundas County in succession to V. K. Greer, M.A., who is now on the staff of Stratford Normal School.

Miss L. Best of Seaforth is teaching in Milton Continuation School. L. Might, M.A., formerly of Markdale, is now Principal of Parkhill High School.

Miss Helen O'Connor of Whitby is now teaching at Cobden, Ont.

Miss E. E. Nicholson of Toronto is teaching in Ridgetown.

Miss Edna Burridge of Victoria is teacher of English, Latin and French in the High School at Esquimalt, B.C.

Andrew Wallace of Brantford is on the staff of Sarnia Collegiate

Institute.

W. A. McWilliams who has been acting as Principal of Fitzroy Harbour Continuation School has been appointed general academic instructor in the London Technical and Art School.

Miss Beatrice Meston of Pickering is now teaching in Elmvale, Ont. R. G. Vogan of Campbellford is now teaching in Sydenham, Ont.

Miss Ruth E. Spence, B.A., who has been teaching in Collingwood has received an appointment to the staff of Jarvis Street Collegiate Institute, Toronto.

Subscribers who have no immediate use for the copies of "THE SCHOOL" for September, 1915, October, 1915 and January, 1916, will confer a favour by returning them to this office. Subscriptions will be extended one month for each of these copies returned. Return postage is 2 cents.

Next month we expect to announce an essay competition on dealing with "bad" boys or girls. It will be open to all teachers and six prizes will be offered.

Miss Mary H. Downey of Armow is now teaching near Tiverton.

Graduates of last year's class in Stratford Normal School will be interested in the following items: Miss Edna M. Fletcher is teaching near Dundalk; Miss Clive B. Trevethick near Centralia; Miss Bessie Davidson near Millbank; Miss Gladys Thompson at Troy; Miss Esther Laidley at Winchester; Miss Nellie Laidley at Wallacetown; Miss Ruby E. Kerr at "Wood Hill" school, near Linden.

Miss Beatrice Kettlewell, formerly of Wingham, is now on the Toronto

Public School Staff.

## 1916 War Books for Libraries, Teachers & Schools

The Undying Story. By DOUGLAS NEWTON. \$1.35 net.

The Story of Kitchener's First Army in Flanders. The superb fighting retreat of the British Army from Mons to Ypres which foiled the German dash on Paris and saved the Allies' lines.

Between the Lines. By BOYD CABLE. \$1.35 net.

A Toronto Editor says of this book: "It will have a tremendous sale in Canada, for it is the counterpart of Frederick Palmer's book 'My Year of the Great War' and a reading of it makes one understand exactly what modern war is."

Vive La France. By E. ALEXANDER POWELL. Illustrated. \$1.00 net. Describes from an eye witness point of view the great drive of the Allies in October. Among the many others are the battle of Soissons, the fighting on the Aisne, the invasion of Alsace, the battle of Neuve Chapelle, the underground cities, the poison gas, etc.

The Soul of the War. By PHILLIPS GIBBS. Price, \$1.75 net.

This is of the human side of the war, of the men who fight and suffer, women who suffer and wait. The Red Badge of Courage. This book will stir the heart of the nation.

The Drama of 365 Days. By HALL CAINE. Price, \$1.00 net.

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The Three Things. By MARY R. S. ANDREWS. Price, cloth, 50 cents net. "The greatest story the war has produced."

My Year of the Great War. By FREDERICK PALMER. 464 pages. \$1.50 net.

No weariness of war topics should tempt any son or daughter of Canada or the British Empire to neglect it. It is not a book to borrow. In any home where one dollar and fifty cents can be spared it will be an act of patriotism to spare this amount that the book may be read and reread, that the love of country and kindred may be kindled where it does not already exist.

The World in the Crucible. By SIR GILBERT PARKER. \$1.50 net. A notable contribution by this famous Canadian writer.

Sir John French. The English retreat from Mons. By CECIL CHISHOLM. 35 cents net.

The Human Slaughterhouse. By WILHELM LAMSZUS. 50 cents net. Four million copies of this book sold in Germany.

The Great Illusion. By NORMAN ANGELL. \$1.00 net.

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## Results of December Examinations for Degrees in Pedagogy. Oueen's University.

Doctor of Pedagogy—Science of Education: J. H. Bingay (with honours), J. M. Hutchinson, S. J. Keyes, G. G. McNab, H. P. Honey. History of Education: C. B. Edwards, Samuel Huff, S. J. Keyes, S. W. Kestenbaum, G. G. McNab (with honours), N. S. Macdonald. Educational Administration: G. G. McNab. Educational Psychology: J. M. Hutchinson (with honours). Bachelor of Pedagogy—Science of Education: G. E. Reaman, Wm. E. Shales, W. M. Shurtleff. History of Education: Jas. Froats (with honours), V. K. Greer, Wm. E. Shales, W. A. Stickle. Educational Psychology: Andrew Stevenson. C. H. Edwards, Section B, Doctor of Pedagogy (Old Course); P. F. Munro, Section A, Doctor of Pedagogy (Old Course); A. D. Colquhoun, Section B, Bachelor of Pedagogy (Old Course). A. D. Colquhoun, B.A., has completed the requirements for the Degree of Bachelor of Pedagogy.

### UNIVERSITY OF TORONTO.

Doctor of Pedagogy—Science of Education: J. D. Campbell, J. B. MacDougall, G. W. McGill, S. J. Radcliffe. Educational Psychology: G. S. Lord, W. Scott, A. Smith. History of Education: J. T. M. Anderson, G. H. Armstrong, J. D. Campbell, W. I. Chisholm, J. W. Forrester, W. C. Froats, D. D. MacDonald, J. B. MacDougall, J. G. McEachern, G. W. McGill, S. J. Radcliffe, E. T. Seaton, D. Walker, E. T. White, J. E. Wilkinson. Educational Administration: J. D. Campbell, W. I. Chisholm, J. W. Forrester, W. C. Froats, J. G. McEachern, E. T. Seaton, D. Walker, J. E. Wilkinson. Bachelor of Pedagogy—History of Educationá David Whyte. Educational Administration: David Whyte. David Whyte has completed the requirements for the Degree of Bachelor of Pedagogy.

Recent news of the class of 1914-15 in the Faculty of Education, University of Toronto is as follows: Miss Olive Lockhart is Principal of Vernon Public School; Miss F. Ruby Cordingley is teaching at Credit Forks; Miss Mary Graham has been teaching in Dutton since last September; Miss Muriel Campbell is at R. R. No. 1, Ripley; Miss Vera Dykes is at Campbellton; H. Harry Graham is on the staff of Winchester High School; R. W. E. McFadden, M.A., has removed from Hanover to teach English and history in Brantford Collegiate Institute; G. G. McKee is Principal of Pinkerton Public School; E. Irene Cunningham is teaching at Nixon; Norman M. Allen is on the staff of St. Andrew's College, Toronto; Chester K. Merner is at Carlingford; Cecil V. Webb is teacher of the fourth book class in Sturgeon Falls Public School. Miss Margaret Petrie has charge of the Senior Third class in McCaul School, Toronto.



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W. S. Steele, formerly of Sturgeon Falls Public School has been appointed to the staff of Stratford Collegiate Institute.

Miss Eula Allen, formerly of Aylmer, is now teaching in Sparta, Ont.

### MANITOBA.

The school management committee of the Winnipeg Board of Education reported, recommending:

1. That the resignations of Miss M. J. Gray, Mrs. I. A. Hoole, Miss Clara L. Groff, Miss E. A. Irvine, Miss M. McKeague, Miss Helen Rutledge, and Miss S. Lyone be accepted to take effect on the dates specified in their letters of withdrawal.

2. That leave of absence without salary be granted to Miss S. Gordon until March 31st, 1916, and to Miss J. Cameron, Miss M. Bastin, Miss Jessie Ellis and Mr. A. Dickson until June 30th, 1916.

3. That the application of Mr. F. Adams for leave of absence for active service be granted.

4. That the following teachers be appointed to positions on the elementary staff at schedule salary, under Agreement Form A: Miss Mabel Eyres, Miss Rose Magnusson, Miss Christina Gunn, Miss Mary Winram, Miss Marjorie Douglas, Miss Katherine S. John, Miss Jean H. Wilkie, Miss Ada Spearman, Miss Jennie McCullough, Miss Nellie H. George and Miss Nellie B. Scarth, appointment in all cases to date from time of assignment to classes.

—Western School Journal.

### ALBERTA.

A meeting likely to have far reaching effects on the educational history of the four western provinces was held in Victoria just before Christmas. Such important questions as adequate provision for such special classes as the blind, the deaf and dumb and feeble minded received attention, and plans were laid for care of these children which should result in a greatly increased opportunity for them. At this meeting a committee consisting of Dr. Robinson of British Columbia, Chief Inspector Ross of Alberta, D. P. McColl of Saskatchewan and Robert Fletcher of Manitoba was appointed to take into consideration the standardization of Normal School work in the West as regards length of term, entrance requirements, course of study and texts used. This committee will meet shortly. Dr. Robinson is chairman.

The provincial architect's department at Edmonton is busily engaged on plans for the re-modelling of the Calgary Normal School. For some time this building has been inadequate for the work to be done there. Last term the enrolment reached one hundred and seventy-five. This made it necessary that something be done at once. It is expected that the work of alteration will begin immediately after the close of the spring term in April.

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The next meeting of the Alberta Educational Association will be held in Edmonton during Easter week. Such questions as a Teachers' Alliance for the Province and teachers' pensions are to occupy part of the business sessions. The teachers of the province are assured a treat in the presence at the Association of President Suzzallo of the University of Washington, Seattle. Dr. Suzzallo is known as the editor of the Riverside Educational Monographs, as professor of educational sociology in Columbia University and as a distinguished lecturer. His visit will doubtless prove a great inspiration to the teachers of Alberta.

The provincial Normal Schools at Calgary and Camrose have opened for the first session of 1916 with a somewhat smaller enrolment than was the case during the term just closed. One remarkable feature of the present term's enrolment is that the men in training outnumber the women. Of the ninety-eight students enrolled at Camrose in the first and second classes, fifty-one are men.

Miss Daisy M. Ripley, for four years a member of the staff of the Camrose High School, has resigned and returned to her home in Nova Scotia. Miss MacSkimming of the Edmonton schools will take her place.

A. N. Mouat, Principal of Schools at Hardisty, has given up his work here to offer his services for work overseas. George K. Haverstock, B.A., has taken up his work as principal in Hardisty.

The annual conference of Inspectors and Normal School Instructors took place in Edmonton during the week of January 17th, under the chairmanship of Chief Inspector Ross. These meetings are of great value, since the men out on the field observing the teachers at work are able to assist those responsible for the training greatly by reporting the places where weaknesses appear most common.

E. W. Farr, B.A., formerly Principal of the English School for Foreigners at Vegreville has been appointed Inspector of Schools. Principal Howard, formerly of Didsbury, succeeds him at Vegreville.

Privates F. L. Bickford, C. V. Sampson, C. B. Sarjeant, W. J. Gillespie, H. Henry and G. A. Hoover, recent graduates of the Camrose Normal School are now with the 5th Universities Company in Montreal.

C. C. Bremner, B.A., received appointment at Christmas to the staff of the North Battleford High School, Saskatchewan, as instructor in English and history.

The sympathy of the teachers generally throughout the province will be extended to F. Speakman of the staff of the Victoria School, Calgary, in the death of his father which took place about the middle of December. James Speakman was President of the United Farmers of Alberta at the time of his death. In this capacity his work was characterized by a breadth of view, sanity, and willingness to hear both sides of

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a question, which made him a popular and valued official. Education in Alberta has had no stauncher friend than the late President Speakman. At the time of his death he was engaged in a comprehensive educational policy for his organization. Educationists and farmers in Alberta have great cause to regret the passing of this noble unselfish man.

W. C. Richardson, Director of Technical Education for the City of Edmonton, recently presented his resignation to the Board. It was felt that Mr. Richardson had tendered valuable service to the city, so instead of severing the relationship which had existed the Board asked him to accept a year's leave of absence in the hope that conditions at the end of that time might warrant the expansion which the board and the director had planned.

Superintendent W. G. Carpenter of Edmonton has the sympathy of a great many friends all over the province in the loss of his wife. Mrs. Carpenter had been in ill health for many months so her death was not unexpected.

The response to the appeal for money for the Patriotic Fund in Alberta has been most encouraging. Several constituencies have doubled the amount apportioned them by the provincial committee. One of these, which has nearly sixty per cent. of a foreign-born population was asked for \$10,000. Up to date the sum of \$21,000 has been raised. In the work of supporting the fund and gathering the money the teachers have had a prominent place. The members of the Northern Alberta Teachers' Association agreed to contribute a day's pay per month in addition to suffering a considerable cut in salary. Principal McNally of the Camrose Normal School captained the team which turned in the largest sum collected in that way.

T. B. Kidner, for many years Director of Technical Education in Calgary, has accepted an appointment under the Canadian Hospitals Commission, being granted indefinite leave by the Calgary board. Mr. Kidner will organize the instruction on technical work which the Commission will provide for returned soldiers.

### QUEBEC.

The Superintendent of Education has just tabled his report in the Legislature, showing that much has been done to encourage young people to remain on the farms. Oral instruction and practical experiments in small gardens proved very popular. No fewer than 18,020 pupils took that course.

The number of pupils attending Quebec schools of all kinds in the year 1914-1915 was 459,636, which is 25,523 ahead of any other year. There are 7,016 schools in 6,601 school municipalities. Roman Catholic children in school numbered 400,728, Protestant children numbered

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## Department of Education.

PROVINCE OF ALBERTA.

Teachers who contemplate seeking positions in Alberta are advised and invited to communicate with the Department of Education, Edmonton, with respect to recognition of standing, and also to vacancies.

The Department has organized a branch which gives exclusive attention to correspondence with teachers desiring positions and school boards requiring the services of teachers. By this means teachers who have had their standing recognized by the Alberta Department of Education will be advised, free of charge, regarding available positions.

Address all communications to

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For information, apply to the Registrar of the University, or to the Secretary of the Faculty of Education.

The School wishes to obtain copies of its issues of September, 1915, October, 1915, and January, 1916.

[For each copy of these returned in good condition, subscriptions will be extended one month or 10 cents will be paid.

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58,908 Male pupils numbered 232,192, girls 227,444. The average attendance was 79.17. Female teachers numbered 12,469, male teachers 3,666.

The war has had no effect on school building and repairs, the report points out and during the year \$3,006,278 was spent for new buildings and repairs, 292 buildings going up or being repaired. This was an increase of \$1,888,383 over the previous year's expenditure, and is largely accounted for by the new Protestant High School of Montreal.

### NOVA SCOTIA.

The new Science Hall at the Agricultural College, Truro, has a very thoroughly equipped Domestic Science Department. At the recent short course held, a very creditable number of women from all parts of the province availed themselves of the opportunity to study this art Miss Redmond, Dartmouth, had charge of the class.

A. MacKay, Esq., M.A., Supervisor of Schools, Halifax, has been ill for several weeks. He is not yet able to give full attention to his school duties.

Among the latest appointments in our Public Schools are Miss Viola McLean, Spring Street School, Amherst, and Miss Dorothy Phelan, B.A., Stellarton. Miss Pearl Stanford, Dartmouth—the second lady-graduate of our Agricultural College—has, immediately after completing her Normal College Course, accepted a position as teacher in Newfoundland.

Principal E. Chesley Allen, Yarmouth, has issued an interesting monograph on the Birds of Nova Scotia. Mr. Allen is one of our best bird authorities.

Among the soldiers recently wounded in France is Mr. B. H. Landels, who was Instructor in Agriculture at the Provincial Agricultural College.

## War Maps

The following war maps are published by John Bartholomew & Co., Edinburgh:

(1) War Map of Central Europe	1s.
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(3) Orographical Map of Central Europe	1s.
(4) Reduced Survey Map of NE. France, Belgium and the	
Rhine	2s.
(5) War Map of Europe and the Mediterranean	1s.

These maps give one the impression of very careful preparation resulting in absolute accuracy. The paper is heavier and superior in quality to that of any other war maps examined, and the colouring and lining are beautifully executed. The only objection that can be offered to these maps is that the names are printed in a small type so they require a reading glass to study them with ease. Number (3) is unsurpassed for anybody desirous of surveying the field critically as to elevations. The different elevations are carefully distinguished by different colouring. Number (4) is excellent in this respect also for the western campaign.



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The annual competitive examination for admission to the College takes place in May of each year, at the headquarters of the several military divisional areas and districts.

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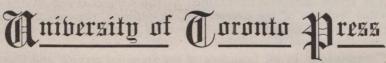
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