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We thank our readers for the many kind wishes, and appreciative comments on the REVIEW that we have received from them lately. We wish them all a very Happy New Year.

A number of new subscribers begin to read the REVIEW this month. We hope that they will find it useful, and will help to make it more so by sending us suggestions, items of school news, or questions for the Question Box. Especially we would ask them, and all our readers,

to read carefully the notice about subscriptions printed on the first page of each issue. Misunderstandings sometimes arise because the information given there is overlooked.

Talks on Forestry for children, under various attractive headings, are being sent out by the Canadian Forestry Association. The matter is all in story or semi-story form and in many cases the manuscripts furnished to teachers will be accompanied by sets of photographs which can be passed about a class room.

In nearly all Canadian schools a portion of Friday afternoon is devoted to miscellaneous reading and it has been shown that simple talks on forest subjects would be acceptable to teachers and pupils alike.

The Secretary has in course of preparation a series of lectures on interesting topics identified with forest protection, which will be sent upon request to any part of Canada. These readyto-hand lectures will be accompanied by sets of twenty-five or fifty lantern slides which will sufficiently illustrate the subject. The manuscript and slides will be sent out at the Association's expense and the first of these will probably be ready about January 15th.

We hope that some of our teachers and others interested in education will take advantage of these announcements made in the Canadian Forestry Journal for December, and thus assist the work of the Association. Address, Canadian Forestry Association, 305 Booth Building, Ottawa.

At this moment there would be few wrongs in the distribution of wealth if people ceased to want more than is good for them.

The appalling inequalities of our day would vanish as by magic if a sufficient number of men were to leave off "making haste to be rich," and a sufficient number of women were "to set their affections on things above."-J. N. Figgis.

#### NOTES ON HIGH SCHOOL LITERATURE.

BY THE EDITOR.

MACAULAY'S LIFE OF SAMUEL JOHNSON.

The prescribed edition of this work (Buehler: Longman's English Classics) is an admirable one, and I shall begin by giving some hints as to its use. For the introductory chapters contain such a wealth of information and suggestion, that it is necessary to select from them. And these selections, again, may be adapted by each teacher to meet the needs of her class.

From the very full bibliography, pp. xli and xlii, I would choose for the teacher's reading Boswell's Life, to be had in Everyman's Library. (J. M. Dent & Sons, 27 Melinda Street, Toronto) Carlyle's Essay, and the volumes in the English men of Letters series on Johnson and Macaulay. Madame D'Arblay's Diary and Letters will turnish entertaining and amusing passages to illustrate Johnson's life.

Buehler says, "When the student has made the acquaintance of Macaulay he is ready to begin the Life of Johnson."

I prefer to reverse this order. The essay should be read twice. Read it the first time to find out all that it can tell you about Johnson; the second time, with some consideration of Macaulay.

Do not attempt to have the chronological table of Johnson's life memorized as it stands. Let the class study it with you, answering the following questions: What are the dates of Johnson's life? Under what sovereign did he live? What are the important historical events of the period?

Link with Canadian history; with what names in the contemporary biography column are you familiar? in the contemporary literature column? Was this a time of war or of peace? Of many or few great writers? How old was Johnson when Halifax was founded? When Quebec was taken?

After a brisk and informal discussion of this kind, have the dates of Johnson's life, and some half dozen (not more) of the names in each column underlined to be learned in this connection.

Follow the directions given by Buehler on pp. xxxviii and xxxix. An additional exercise for

testing is to have pupils write on the board in turn sentences giving the topic of each paragraph studied: e. g. paragraph 14. "Johnson wrote his poem "London" in imitation of Juvenal." These sentences may be criticised and the amended forms copied into notebooks towards an analysis of the whole essay.

In class, compare corresponding details of Johnson's and Macaulay's lives, e. g. their parents, homes, financial circumstances, college careers, start in professional life, health, personal appearance, political opinions. This will help the student at a later stage in considering Macaulay's sympathy or lack of it with Johnson. Selections from Boswell and Madame D'Arblay should be read aloud, and, when Johnson's style is the topic, extracts from "Rasselas," "Lives of the Poets" and "The Vanity of Human Wishes." Every effort should be directed towards making the real Johnson live before the pupils. Discussion should be stimulated by comparing passages in Macaulay and Carlyle, Boswell and Madame D'Arblay. Give them as all round a picture of the great man as possible. Let them discuss such questions as, Why he had so many friends; why he preferred town to country; why he tolerated Boswell. (Does Macaulay make this clear?)

A good many of the examination questions given on page xliv are too advanced for the ordinary high school pupil. The following paper was set for a class of girls averaging 16 years of age:

- 1. State briefly the chief events of Johnson's life?
- 2. Name not less than five eminent English writers of Johnson's time, with their chief works.
- 3. Write with some fulness on Johnson's friends.
- 4. Write a paragraph on Macaulay's opinion (a) of the Dictionary, or (b), of the lives of the poets, or (c), of Johnson's edition of Shakespere.
  - 5. Question like No. 4 in Buehler.

On a second reading, the chronological table of Macaulay's life should be studied in the same way as the previous one, but more briefly. What men *might* both Johnson and Macaulay have seen?

An additional exercise for style. Buehler suggests for study his "diction,

sentence structure, paragraph structure, and the FURTHER NOTES arrangement of the whole composition."

BOTANICAL

Make a list of the adjectives used in describing (a) Boswell, (b) the Lives of the Poets. Does Macaulay use many long words? Many Latin words? Iilustrate his habit of (a) repeating a thought in several different sentences, (b) of following up a general statement by discussion of it in concrete terms. Notice especially paragraph thirty-five, where the general statement "he no longer felt the daily goad urging him to the daily toil" is followed by the vivid picture of him "at liberty to lie in bed till two in the afternoon and to sit up talking till four in the morning without fearing either the printer's devil or the sheriff's officer."

This is a good typical sentence to use as Buehler suggests on page 109. "He will choose particular typical sentences of Macaulay's and match them with similarly constructed sentences

of his own on a different topic."

Does Macaulay make much use of comparisons? Of what sort? Metaphor? Does he compare persons? Bring a list of examples. Does he make sweeping or exaggerated statements? Does he use long or short sentences? Loose or periodic? involved or simple? With what kind of sentence does he usually begin a paragraph? Give six examples of balanced sentences. Are his paragraphs long or short? Has each one unity? Are there any irrelevant digressions?

In any ten consecutive paragraphs underline the words or phrases which connect each one with what precedes it.

Questions on the Life of Johnson and on Julius Casar will be given in February.

A correspondent asks for a list of passages to be memorized from *Paradise Lost*. Bks. 1 and 2.

Book 1—lines 1-26; 254, 255; 283-298; 301-304; 351-355; 533-562; 589-600; Book 2—lines 282-290; 488-495; 575-586; 879-883. The passages do not all begin or end with the beginning or end of the line.

For the increase of our Canadian forces to half a million men, Nova Scotia will be expected to raise one division, and New Brunswick and Prince Edward Island another, each division numbering over eighteen thousand men, and including twelve battalions of infantry and the usual complement of artillery brigades and engineers. One battalion which is now being enrolled, the 165th, is composed of Acadian French volunteers, chiefly residents of New Brunswick.

#### FURTHER NOTES ON THE USE OF BOTANICAL TEXT-BOOKS.

#### L. A. DEWOLFE.

Between now and April, teachers can take advantage of mild days and bare ground to study a few common cryptogams.

In "Beginners' Botany," chapter XXIV is devoted to this part of the plant kingdom. That chapter cannot be covered completely without a compound microscope. Any schools that possess a microscope should attempt to do a little with this chapter. Even without a microscope, the teacher should give a general talk on Bacteria. She can point out that they are present everywhere in the dust of the air. To prove this, moisten a piece of bread, expose it to the air of the school room for half an hour and then keep it under an inverted tumbler for a few days. Don't let it become dry. In a week the bread will be overgrown with threadlike masses of mould - some grey, some greenish. In addition, however, there will be smooth jelly-like yellow patches, having a disagreeable odor. These are colonies of bacteria.

Though individual bacteria are too small to be seen, even with low magnifying power of a microscope, each bacterium by continued division and growth soon becomes a mass known as a colony. These colonies may grow to be an inch in diameter, and consist of millions of bacteria.

But we planted neither bacteria nor mould on the bread. Evidently, they got there themselves. And the most natural source we think of is the

After this talk and these observations, have the older children read pages 182, 183 (Bailey). Also read page 188. In connection with the experiment with copper sulphate on this page, teach the principle of spraying for fungus diseases on fruit or leaves. If blue vitriol will prevent the growth of mould on bread, it might prevent the growth of scab on apples or blight on potato leaves. People have actually learned that it does do this. [Of course there are other spray solutions that will do the same thing.]

Put a handful of beans in a pint fruit-jar, fill the jar with water and leave in a warm room for a fortnight. The water will gradually become milky in appearance, and will give a strong odor of putrefaction. Bacteria have multiplied so rapidly as to render the water opaque. If a drop of this water, at the end of a week, be examined under very high power of the microscope it will be found teeming with moving bacteria. At the end of the fortnight, most of them are dead. When overcrowded, they seem to poison themselves, much as people crowded into an air-tight room for a long time would die.

In the talk on bacteria, the teacher will bring out the fact that some are beneficial and some are harmful. The latter point will introduce a lesson on hygiene — on the spread of contagious and infectious diseases. Similarly, the talk on fungi will introduce talks on plant diseases such as blackknob, apple scab, wheat rust, potato blight, rose mildew, etc.

The ambitious student will want to read all of chapter XXIV after the teacher has given the talks suggested. It would not be wise, however, to require students to read it. Many would try to memorize it without understanding it. That is useless.

"But what about examinations?" someone exclaims. If a student has a little first hand knowledge about any of these low forms of life, the examinations will take care of themselves. There is no need of trying to find out about all of them.

The section on Algae should be left until early summer.

Lichens, Liverworts, Mosses and a few Ferns are available whenever we have a "thaw" during the winter. As lichens grow on treetrunks, we can get them at any time.

Their life-history is interesting; but no pupils would follow it first-hand. If the teacher choose to tell the story briefly of what others have discovered about these plants, all right. The point for children to get is that lichens are common and of many kinds. They read in Evangeline of "The bearded pines and the hemlocks;" but if asked about lichens the answer would be that they grow north of Arctic Circle. So they do. But they also grow on every tree and every fence pole that the child ever saw. Our grandmothers used them to make dyes. Let the children get acquainted with a half dozen lichens, whether they can name them or not.

The liverwort illustrated on page 196, should

be left until spring. A few leafy liverworts, however, can be found in the woods among mosses at almost any time.

Mosses are the most interesting plants for winter study. Although Bailey describes only two species, it is easy to find two dozen. Some mosses mature their spores in winter; others in spring; still others in summer or autumn. At all times, therefore, some species can be found "in fruit."

If your pupils are anxious to know the life-history of a moss, it would be folly to deny them the pleasure. Personally, I believe they might enjoy gathering mosses, noting the places where they grow, the conditions under which they grow, how they hold moisture for other plants, how they help regulate the flow of water in our forest streams, etc., even if they had never heard of antheridia, archegonia, perichaetia, paraphyses and a few other virtues these plants are supposed to possess.

The Club mosses are in good condition to study in winter. The Horsetails should wait until spring.

Teachers living near coal mines should compare the stem-markings of Club-mosses and Horsetails with fossil stems of larger size that the miners find away below the surface of the earth. A few geological stories would be appropriate here.

In general, then, my advice about chapter XXIV, is Don't study it. Use it, however, as a source of suggestive topics.

An inexperienced teacher will think that the identical plants named and illustrated are the ones she must teach. This is not the case. Good work will have been done if the children know something of bacteria in relation to their own welfare—even if they never have an opportunity to see one; if they know something of lichens and mosses and their place in the economy of nature; if they know the fungi that are enemies to our cultivated plants, and how to control them. A few scientists must study all the life processes of these plants. But the average school child will not necessarily become a scientist.

The British have captured the last stronghold of the Germans in the Cameroons; and a German warship has been captured by the British on Lake Tanganyika.

#### NOTES ON SCHOOL READERS.

BY THE EDITOR.

St. Agnes' Eve and Sir Galahad. Tennyson N. B. Reader IV.

St. Agnes was a beautiful young Christian girl who suffered martyrdom during the persecution of Diocletian in 306 A. D. Her day is the 21st of January, and the belief which in Scotland was attached to Hallowe'en, the eve of All Saints' Day, was in England associated with the eve of St. Agnes. It used to be the custom for girls to go to bed fasting and silent on St. Agnes' Eve, in the hope of seeing their future husbands.

"They told her how upon St. Agnes' Eve, Young virgins might have visions of delight."

Two great English poets have made use of this tradition. Keats, in his St. Agnes' Eve, tells how two lovers, Madeline and Porphryo, fled away upon one stormy St. Agnes' Eve, after Madeline had tried the spell. The "vision of delight" which the holy nun in Tennyson's poem seeks and is granted, is of no earthly love. Through faith and earnest prayer she wins the vision of the Heavenly Bridegroom.

Sir Galahad is based on one of the most famous stories that are connected with King Arthur and the Knights of the Round Table. The Holy Grail was the cup from which our Lord drank at the Last Supper. Joseph of Arimathea brought it to Glastonbury in Somerant.

"And there awhile it bode; and if a man
Could touch or see it, he was healed at once
By faith, of all his ills. But then the times
Grew to such evil that the holy cup
Was caught away to Heaven, and disappeared."

But in the time of King Arthur the cup appeared to a nun, the little sister of Sir Percivale, one of the Knights of the Round Table. She told her brother, and bade him pray that they might all see the vision and so be healed of all evil. Sir Galahad was the youngest, the most beautiful and the most innocent of the Knights, and he was the first to see the Grail.

The two poems are alike in that both turn on the same feeling—the spiritual passion, the affection set on things above, of both the nun and the Knight. One leads the contemplative life; "to prayer and praise she gave herself."

The other lives the life of action—"To ride abroad redressing human wrong." But both are filled with the longing of the Psalmist. "As the hart panteth after the water-brooks, so longeth my soul after Thee, O God." As the nun prays, she has vouchsafed to her the vision of the Heavenly Bridegroom, and as Sir Galahad rides and fights, "the airs of heaven" meet him here, heavenly forms surround him, and heavenly voices commend him.

The first poem is full of imagery from the Bible. Some references that the teacher should study are: Ps. 51, 7; Isaiah 54, 5; St. Matthew 22, 2; and 25, 1-10; Ephesians 5, 29 and 30; Revelation 4, 6 and 15; 2 and 21; 2 and 9; St. Matthew 5, 8.

Before teaching Sir Galahad read The Holy Grail in the Idylls of the King with special attention to the description of the nun and Sir Galahad, lines 45-143; the appearance of the Grail in the hall, lines 182-194; and Galahad's story of how he saw the Grail, lines 464-484. Also, with the lines

"My strength is as the strength of ten Because my heart is pure."

Compare Sir Percivale's sad words:
"Then every evil word I had spoken once."
—lines 371-374.

With Galahad's sight of the "blessed forms" compare II Kings 6, 15-17; with "the cock crowed ere the Christmas morn," Horatio's "the bird of dawning singeth all night long." Hamlet I, 1, 159; and with "in mine earthly house," and "my spirit beats her mortal bars." Lorenzo's speech about "this muddy vesture of decay" Merchant of Venice; v. 1. 61. With "this heart and eyes are touched, etc.," compare Arthur's words in The Holy Grail, "this earth he walks on seems not earth, etc."

The poems will repay close study, and the more you find in them the better you can interest your pupils; but you must not expect them to see in the poems all that you do. With St. Agnes' Eve, let them begin by reading to themselves, and naming any words they do not understand. Possibly "snowy sward" and "argent round" may puzzle them. These explained, ask them what time of year is described, and how they know. ("This first snowdrop of the year," fixes it, for England, as not later than very early in February.) What kind of night

is it? What words or phrases express the coldness and brightness?

When is St. Agnes' Eve? This leads to the story of St. Agnes, and of the belief about the eve of her festival. Who is speaking in the poem? Some child will probably say, "St. Agnes," but let them think out for themselves why this cannot be. For one thing, would this idea about the Eve have come to be a common belief before or after St Agnes' death? Where is the nun? At what is she looking, and of what is she thinking? Study the six comparisons in the first two verses. What qualities of the snow are impressed upon us? What words from the Bible may the nun have had in mind? What is her prayer in verse one? In verse two? In verse three she has, in a vision, the answer to her prayers.

When reading Sir Galahad begin with the story of the Holy Giail. Show a picture of Sir Galahad. (Watts' well known painting is to be had in many cheap reproductions.) See that the children know something about tournaments. Read up the description of the tournament in Ivanhoe, and tell them about the lists, the combats, and the parts played by the ladies, to help them to visualize the first verse. They should know that the duty of a knight was to fight for and protect his country, his religion, and all who were weak and oppressed. As Earl Douglas says to Wilton, when he knights him:

"Arise, Sir Ralph, deWilton's heir For King, for church, for lady fair, See that thou fight."—Marmion.

If you were illustrating the poems, how many pictures would you paint for St. Agnes' Eve? How many for Sir Galahad?

The first poem is still, while the second is full of movement and sound. Compare them in this respect.

"Argent round." What is the moon called in Sir Galahad? "Shattering trumpet." Compare the expression "to break the silence." Explain "the tide of combat stands," "Shame and thrall," "crypt and shrine" "the stalls are void, the doors are wide." "On sleeping wings they sail." (Have you ever seen the gulls sailing through the air with motionless wings?) "Dumb with snow," "on the leads," "brand and mail," "park and pale." Pick out the words that best express sound or movement.

Learn by heart the four lines that you like best in each poem. Compare the poems, as to length of line, length of verse, arrangement of rhymes, and the eleventh line in each verse.

The meaning of the poems will be grasped in different degrees by different classes. Some children will hardly understand them at all. But if we can get them to see and feel even a little of the outward beauty, it will be worth while. Try to have them see the pictures, the winter moonlight, the dark forest, the vision on the lonely lake, the sleeping towns, the winter storms. Let them linger with pleasure over the beautiful words. It is one of the glories of art that it does not force truths upon us, but, rightly studied, helps us to see them for ourselves. And if we can teach our pupils the outward beauty of poetry, we may safely leave the inner lesson to "steal in silence down."

### WOMEN SEEKING PLACE ON BOARDS OF SCHOOLS IN MONTREAL.

An appeal to have the laws of the province amended that women may sit on school boards was made to the school management committee of the Protestant Board of School Commissioners last night by a deputation including Dr. Grace Ritchie England, president of the Local Council of Women; Professor Carrie Derick, vice-president of the National Council of Women; Mrs. David Scott, vice-president of the Local Council of Women; Mrs. Fisk, treasurer of that organization, and Miss Hurlbatt.

The present school law states that resident ratepayers and husbands of ratepayers are eligible to election or appointment to school boards. The delegation asked that this be changed to read "ratepayers and wives of ratepayers." They asked the support of the board in securing the necessary amendment to the act.

The various speakers pointed out that in other provinces of Canada, in the United States, in England and Scotland, and in practically all European countries, with the notable exception of Germany, women were included among the members of school boards. The commissioners promised to consider the request carefully.—

Montreal Star.

#### A LEGISLATIVE HISTORY OF NEW BRUNS-WICK EDUCATION.

1802 - 1847.JOSEPHINE H. MCLATCHY. (Continued.)

These gentlemen made a valuable report of their labors, which was submitted to the Assembly in the fall of the year. From this report it appears, that in 1844-5 there were some 500 schools in the province, having an enrolled attendance of 15,924 pupils." Upon receiving the report made by the above commission, the Assembly recommended to its Educational Committee, of which the Hon. L. A. Wilmot was chairman, to prepare the draft of a bill concurring with the view expressed by this governmental inspection This bill, together with the report of the inspectors, was printed in a pamphlet and circulated through the province during the recess.2 When presenting this draft-bill Mr. Wilmot said, "The Committee are deeply impressed with the importance of this subject and hope that the legislature will be prepared at the next session to adopt such improvements in the present system as will carry with them the approbation and support of the country, and at the same time, to ensure those educational advantages, which are in great measure denied by the present defective system."3

The last general provision for parish schools during this period was passed in 1847.4 Not only does it recapitulate the best enactments of the period, but it includes certain new measures which are a forecast of the subsequent legislation which provided for an improved system of schools throughout the province. This Act provided that His Excellency the Lieutenant Governor and the members of the Executive Council were to constitute a Board of Education<sup>5</sup> having power to establish Provincial Training and Model Schools,6

to appoint two school inspectors for the province and to establish agencies in different parts of the province for the sale of school books. The members of the Board of Education were empowered to appoint a secretary of the Board with a salary of £100 a year. John Gregory was appointed to fill this office. Two Training Schools were established, one in Fredericton, of which Marshal D'Avary was appointed master, and one in St. John under the control of Edmund H. Duval. The Board of Education were empowered "to make, sanction, require and enforce the system of instruction" also to "select and determine the set of books and apparatus to be used" in the schools of the province. The teachers were also required to use prescribed forms for registering and reporting the general routine of their schools. The prescribed books and apparatus were to be provided by a large sum set apart for that purpose by the legislature and to "be placed in charge of certain persons to be appointed for that purpose in the respective counties within the province, and sold for the use of such schools at prices fixed by the Board of Education."1 These booksellers were required to report annually concerning the books received and sold by them.

Trained teachers were classified according to their attainments. "Teachers of the lowest class shall be qualified to teach reading, writing, spelling and arithmetic of whole numbers, including simple interest and the combination of rules called 'Practice.'" Teachers of the Second Class shall be qualified to teach spelling, writing, arithmetic, reading, English grammar, geography and bookkeeping; teachers of the highest class shall be qualified to teach spelling, reading, writing, arithmetic, English grammar, bookkeeping, natural philosophy, algebra, geometry, trigonometry, mensuration, land survey and navigation."2 Teachers of these classes were to receive provincial aid varying with their class of license, at the rate of £18 for a third class teacher for one year, £22 for a second class teacher, and £30 for a first class teacher. The grant to a licensed untrained teacher was to continue to be £20 for one year. These teachers were to be allowed to continue in service for a limited period only. As an inducement that the licensed but untrained teachers of the province might avail themselves of the advan-

<sup>&</sup>lt;sup>1</sup>T. H. Rand, History of New Brunswick Education, 1802-1877. An address given before the Teacher's Institute 1877. "Educational Circular" 1877.

<sup>&</sup>lt;sup>2</sup>Jour. of the House of Assembly, 1845, p. 342.

<sup>&</sup>lt;sup>3</sup>Ibid., p. 342.

<sup>410</sup> Vic., Cap. 56, Act, etc., 1847. See Part II, No. II (5) of this paper.

<sup>&</sup>lt;sup>5</sup>Ibid., Sect. <sup>3</sup>

<sup>6</sup> Jour. of the House of Assembly, 1845, p. 25. We find that in 1841 and 42, the Lieut. Governor had had correspond dence with Her Majesty's Government on the proposal of forming a Model and Training School for the teachers of parish schools in this province.

<sup>&</sup>lt;sup>1</sup>Ibid., Sect. 16. <sup>2</sup>Ibid., Sect. 11.

tages of a Training School the "sum of 10s. a week for a period not exceeding ten weeks" was to "be allowed and paid to every licensed teacher to enable him to pay the necessary expenses of board and lodging for attending the said Training School."1 This amount was to be granted by the Provincial Treasurer when the teacher "produced a satisfactory certificate of competency and time of attendance, from the teacher of the Training School."

Three, rather than two trustees for each parish, were by this Act to be annually appointed by the

Hannay, speaking of this Act, says, "the object was to introduce a uniform system of teaching throughout the province, and to have teachers classified according to their ability. This law placed the schools of the province on quite a new footing and although it was far from being perfect it was a great improvement on former school laws."2 This Act was the basis of a system which endured until the Free Schools Act of 1872.

#### CHAPTER III.

THE DEVELOPMENT OF MEASURES WHICH APPEAR IN PARISH LEGISLATION.

All the enactments, concerned with parish schools, passed by the New Brunswick Legislature during this period disclose the feeling of uncertainty, and insecurity experienced by the lawgivers regarding the actual working values of the proposed measures. Each law was enforced for a limited period. The final clause in each parish school act of this period read: "This Act shall remain and be in force" for a certain number of years or until a given date. This was a period of experimentation in the legislative provisions for parish schools. The history of this experimentation can be best understood by an appreciation of the development of the educational provisions which were most persistent during this period.

The earliest educational provision which appeared in the New Brunswick legislation was that of Provincial aid. It was the sole measure which was proposed by the rejected educational item in the Appropriation Bill of 1793.3 It

appeared as the main provision of the Act of 1802,1 which granted the sum of £420 to parish schools. In 1805, £375 was appropriated by the House for the maintenance of two English schools in each county of the province. A change in the method of distribution appeared in the Act of 1816.3 It was enacted that each parish must raise £30 for the use of schools before the Government grant of £20 would be apportioned. A parish which raised more than £30 was entitled to a larger grant. The same scale of values was to continue until the maximum parish grant of £60 was reached.

In 1818 the amount of the maximum grant to each parish was increased to £100 because "it had been found necessary to increase the number of schools in some of the larger towns or parishes in order that the whole inhabitants thereof may be equally benefitted."4 No mention was made of the amount to be raised by each parish, but the grant to any one school was limited to £20 for one year. In 1829 the possible total Parish grant was again increased to £140, with an added protection for the Provincial treasury, "that no county in the province shall be entitled to receive a larger sum from the Provincial treasury in any one year than will arise from an average of £100 for each and every Parish in the said County."5 In 1833 the largest possible grant to be apportioned to any one parish was increased to £1606 with the average for the county of £120. These sums were increased in 1837 to £180 as the maximum grant, and £160 the average At the close of the period the largest possible Parish grant was £260,8 while the county average was £180. These sums were set by 3 Vic., Cap. XXXIX (1840).

<sup>1</sup>42 G. III, Cap. VI, sec. 1. <sup>2</sup>45 G. III, Cap. XII, sec. 10.

<sup>356</sup> G. III, Cap. XXIII, sec. 9.

<sup>458</sup> G. III, Cap. XVI, sec. 1.

<sup>&</sup>lt;sup>5</sup>10 G. IV, Cap. XXII, sec. 8.

<sup>&</sup>lt;sup>6</sup>Wm. V, Cap. XXXI, sec. 5.

<sup>&</sup>lt;sup>7</sup>7 Wm. IV, Cap. III, sec. 6.

<sup>&</sup>lt;sup>8</sup>Th Provincial appropriations for parish schools in 1802 was £420; in 1805 was £375; in 1816 was £3,000; in 1837 was £7,000; in 1847 the actual expenditure was £12,250 16s. 8d. It is interesting to note the population of New Brunswick during this period. Hannay gives the following figures: Population in 1802, 25,000 (apx.); 1824, 74,176; 1851, 193,800.

<sup>&</sup>lt;sup>1</sup>Ibid., Sect. 8.

<sup>&</sup>lt;sup>2</sup>Hannay, Op. Cit., Vol. II, p. 111.

<sup>&</sup>lt;sup>3</sup>See Ch. I of present paper.

#### DISCIPLINE.

A paper read by Miss Hazel Alward at the meeting of the Westmorland County Teachers' Institute at Moncton, October 21, 1915. (Somewhat abridged.)

"Perfect discipline in a school," says J. G. Fitch, "is an indispensable condition of successful teaching. It must be obtained before any thing else becomes possible. It is like food or air in relation to our bodily lives. Not a thing to be sought for and possessed for itself, but an antecedent condition, without which all other possessions become impossible."

What then is "perfect school discipline?" Webster defines it as a preparation for future usefulness by instruction in correct principles and habits. How many of us take this view of it? Perfect discipline is necessary not only to obtain momentary obedience, which though valuable, is minor in comparison with other results; not only because the pupils can learn in a given time twice as much and twice as easily but because one of the things they come to school to acquire over and above certain arts and accomplishments which are generally termed education is the practice of obedience. Discipline is necessary that the pupil may be taught the value of the power of self-centrol, regard for rights of others, respect for law and a natural obedience to it, correct habits of behaviour and the development of high ideals that he may as soon as possible regulate his own life and be a law unto himself. In short he needs to grow towards beauty of character. School discipline should aim for all these and the pupil who has not acquired it to a certain degree has been under instruction to little purpose whatever progress he may have made in technical learning.

In school discipline the first and most vital factor is the teacher. And yet how many of us look for the cause of our failure in discipline in external conditions, in parents and home training, in principal and school director, little realizing that the fault lies nearer home in our own inner selves. As the teacher so the school. 'Tis true "the stream cannot rise higher than its source." The teacher who has not a rich and full range of emotional life can expect nothing but a withered soul born of his teaching. He who has not strength and purity of character cannot strengthen and purity character. The

teacher builds his life into that of his pupils and it is absolutely essential that his life be all that he expects the pupils to become. The quality of a teacher's life is a part of the professional equipment.

Self discipline must be first. We must have perfect control of our inner selves before we can expect to control a school. If one enters the school room impatient, calls to order in a loud voice or with the noisy ringing of a bell, correcting this one, scolding another, conditions are not bettered but are made worse. The teacher is probably unconsciously imitating the class and is certainly calling the class to imitate him. "Call yourself to order first," says one, then make your collected quiet and calmness attract attention; follow it by deliberateness of movement and orders given in a low steady voice and you will find that in nine cases out of ten it will be like oil upon troubled waters. Involuntarily the pupils will imitate and become quiet and orderly too. Nearly always the teacher is responsible for the noisiness and disorder of his class. It but reflects his own mood and conduct.

A teacher should enter the school room a living illustration of that line of Kipling's, "Forthright, full harnessed, accepting. Alert from the wells of sleep." Sound nerves and a clear head - good capital for any investment make good ground work for self-control, but only good ground work. To this must be added a cool earnest determination to keep a grip on that inner self, a grim self-reliance that enables us to front the foe without flinching, and a wide tolerance that makes us slow to dread or despise, to hold to the big things of life and rise above the little things. The teacher should create an atmosphere in the school room which will impel all coming within its precincts to be and do better then and there and ever thereafter. "Not so easy as it sounds" some one may say, and neither it is. Yet this should be our standard, for in the words of Lowell, "Not failure but low aim is crime."

Under self-control might be mentioned control of the voice in the school room. A harsh, rasping, sharp, fretful and commanding tone only creates nervous restlessness and disorder. Trouble, care and vexation will and must come to every life in school and out, but let them not creep into our voices. Let only our kindly

and happier feelings be vocal in the school room and the school will surely respond in like manner. A quiet clear tone is golden. One educationist has said that many troubles in discipline come from lack of tact. Tact means sympathy and observation. Some possess it, while others wholly lack it. Yet those of us who are not thus equipped by nature have no right to be discouraged. Every one may acquire the power of ruling others by steadily setting himself to do so. Learning to know the pupils, keeping the golden rule, maintaining one's own dignity and self-respect, will help a teacher to tactfulness and power in discipline. Tact does not treat an entire class to a five minute scolding simply because one pupil has not done his work. When one boy is noisy or frivolous tact does not attract the attention of a dozen industrious ones by rasping reproof. Tact having learned that silence is the surest cure for disorder fixes his eye on the culprit and quietly waits for him, and by a look or some quiet warning nips the trouble in the bud. During change of classes or at any other odd moment, tact never lets go the reins, for he well knows the value of an ounce of prevention. Tact has few rules, but those he has strictly enforced. Numerous rules only suggest offences and their enforcement is often beyond the teacher's ability. Tact never harps on obedience and discipline. Indeed the best discipline is that which remains in the background, that calls for very little attention and takes care of itself. Tact always makes the pupils feel when authority is being exercised that there is a great reserve of strength and resolution in the background which they can neither see nor measure. Tact watches for the good points in his pupils, believing that in every child there is an element of good "would men observingly distil it out," and always aims to touch the lever that puts into operation the best that is in a boy, and as carefully avoids all unnecessary conflict with the bad that may be in him, never nagging or harping on his weaknesses or faults. School and its duties are often made intolerable by such persistent merciless nagging. It would seem that too much could not be said in condemnation of such practice. It should be banished at once and forever into the "limbo large and broad" of obsolete heresies. "An attitude of habitual suspicion," says J. G. Fitch, "is not

favorable to the cultivation of self respect in a pupil; you must often trust him and show you rely on his honor." Lead a boy to believe he can be trusted and he will become trustworthy. On the other hand, if he is told that he cannot be trusted, and feels that he is suspiciously watched, guarded and spied upon, he will surely live up to his reputation. Each separate wrong act should as far as possible be regarded as exceptional not typical, as one which may be atoned for and the memory of which may be obliterated by a right act. Otherwise what could be more discouraging or more fatal to the success of any poor struggles he might make to set himself right and regain the teacher's approbation. Let us remember that scarcely any credit is attached to teaching bright pupils or controlling the boy who is already well behaved. Our great opportunity lies in awakening into life the latent germ of some slow and wayward soul. "He rang the rising bell in the dormitory of my soul," a gentleman once said in speaking of what one of his teachers had done for him. How many boys and girls grow to men and women and die without hearing the rising bell? How many teachers are real bellringers? It may be the best bell-ringers are unconscious of it. It may be that most boys and girls forget when their rising bell was rung and the hand that rang it. Little matter. The result is the main thing. The influence of a teacher is not measured in years. It is measured in the thoughts stimulated, the hearts quickened, the minds awakened. The quality and quantity of service is not marked on the calendar. It is recorded in the flash of the opened eye, in the sparkle of kindled emotions and in the joy of awakened powers.

Tact never gives way to sarcasm in the school room. The teacher's attitude towards the pupils should inspire respect. No one can command respect any more than they can command love. Respect is a thing of slow growth, developed by the kindness, justice and love of the teachers. Love develops earlier than respect, reacts upon respect and intensifies it. Sarcasm destroys any respect a pupil may have either for the teacher or for himself. It leaves a bitterness and a sting that the pupil never forgets, and is surely out of harmony with a wise and high minded moral discipling.

moral discipline. (To be continued.)

#### READING IN THE PRIMARY GRADES.

Train a child to grasp with the eye but one word or syllable at a time and to speak each one before the eye passes to the next, and you make him first a drawling reader. Then as he attains facility and speed in word calling his reading may be rapid, but it becomes as expressionless as the ticking of a watch. To read with that continuity of utterance which the expression of coherent thought requires, the eye must run ahead of the voice. To this end the words must be grasped not singly but in groups.

A few devices for eye-training are here given:

(1) In that early stage when the child does not readily recognize even single words, write words on separate cards, shuffle the cards, and turn them up one after another, the children calling the words at sight.

(2) For drill in quick recognition, write on the board the few words which have been learned, together with some not yet learned, and from day to day change the order in which they are written. This precaution will keep the child from depending on the position the word occupies instead of its form. The greatest weakness of a reading chart is at this point.

(3) Occasionally have rapid drills in calling words running down the middle of a page and back again. Let a pupil speak a word near the middle of the top line, then the word directly under it and so on down rapidly, all the other members of the class to be ready to "go on" the moment such direction is given. Promptness and rapidity are essential to success in working this device.

(4) Cut slips from printed matter of a grade somewhat higher than that used by the pupils at the time. Distribute these for silent work, requiring each to underline all the words which he knows. This exercise has also a moral or ethical value. It is worth while to bring the child to the fork in the road where he must say "I know" or "I don't know." Such tests cultivate a habit of intellectual honesty and of sharp discrimination between what is unknown and what is not known. We sometimes find adults, even teachers, lacking the courage to say "I don't know." Pat crushed the snake's head, but the tail kept wiggling. "Sure, it must be dead but it's not conscious of the fact!" Many

a person is ignorant but not conscious of the tact, and unwilling to admit it when made conscious of his lack of knowledge. There is sound philosophy in the Persian proverb which says: To know that we know that which we know and to know that we do not know that which we do not know — that is true knowledge.

(5) Let pupils hold their books closed but in position to open them quickly. At a signal, the books are opened at random. Another signal follows almost immediately and the books are closed. Each pupil now repeats as many words as he was able to grasp in the moment allowed for looking.

(6) In class work disregard the paragraph numbers. There is no good reason why paragraphs in a reader should be numbered, and in readers recently published the numbers are left out. The changes from one pupil to another in a reading recitation should be made elsewhere than at the end of paragraphs. If John knows that he may be called on at the end of any sentence to read on, he must follow the one reading, and thus get eye training. If he knows that no change will be expected until the end of a paragraph is reached, he is not likely to follow

(7) For drill, write stories on the board broken up into separate clauses or phrases each occupying a line, thus:

One day,
a little boy
said to his mother
where is my hat?
His mother answered
I know where my hat is.

The words in each line should be read continuously as one single expression, not as so many separate words. Great facility can be acquired by a little practice of this kind. It is said that Lord Macaulay had such a degree of eye-training in the art of silent reading that his visual movement in reading a page of ordinary width was continuous down the page, not back and forth across it. It is not uncommon for readers in newspaper offices to read columns of the usual width in this way.

(8) After a lesson is read, call for a re-reading by parts, thus:

Mary may read where it says the lion roared

with pain. Edward, read what the boy said about the zebras. Ernest, read where the color of the cages is mentioned.

This gives eye-training in finding the place called for. The half-minute which a child uses in earnest, silent search for a given statement in the lesson is not wasted time.

(9) Reading charts may be constructed so as to encourage the grasping of several words at once. To illustrate: Take some sheets of heavy manila paper, and separate each into two parts by a vertical slit down the middle. Write on the sheets with crayon a set of sentences so arranged that when either half is turned back the other half together with the part of the next sheet thus exposed will present a new set of sentences. This diagram illustrates the plan:

10	I.
I have	a cherry.
Harry's sled	was painted black.
Our dog Lion	is kind to me.
Will you please	mend my whip.
	II.
Johnny wanted	two red apples.
The board	is long.
Carlo	is a good dog.
I want you to	give me my book.

When both halves of sheet I are exposed the sentence reads, I have a cherry. Turning back the right half changes it into, I have two red apples. Turning back the left side is, Johnny wanted a cherry.

- (10) Exercises in silent reading train the eye. Place on the board sentences like the following and have the objects named lying on the table:
  - 1. Touch the red card with the pencil.
  - 2. Put the white card beside the block.
  - 3. I have the ball in my left hand
- 4. Hold up a finger for each book now on the desk.
  - 5. I will hand the pink card to Miss Smith.

This review drill will train the pupils to get the thought by silent reading and it gives eyetraining, for each is alert and striving to get the thought rapidly. The teacher points a sentence at random, as the third, and the pupils read it silently. Then a pupil is called on to do what the sentence calls for. Mary comes to the table and takes the ball. If she takes it in her right hand she tails, and is not permitted to read the sentence aloud. Another tries and suits the action to the words of the sentence. He is then allowed to read it orally. In each case the pupil acts the sentence as a test of his silent reading before he reads aloud.

The teacher can easily arrange similar exercises from any list of words which the children have learned.

Incidentally, instruction in number, colour, and form may thus be given, but the main purpose is to train in silent reading, the art of getting thought from printed words by means the eye. From day to day change the order of sentences and shift words from one sentence to another so as to keep the children alert in the matter of accurate seeing.

In the common school course oral reading is not an end in itself, but is a test of the correctness of silent reading.— The Western Teacher. (slightly adapted.)

#### THE CURRENT HISTORY CLASS.

- 1. What is the only part of the Balkans that the Turks have never subdued? What are the boundaries of this country? What is its government?
- 2. What can you tell of Monastir, Ctesiphon, Avlona, Captain Boy-ed, Booker Washington, General Smuts, the Vardar river, Lord Alverstone?
- 3. Where is the Anzac region, and how did it get that name?
- 4. Who is the new commander-in-chief of the British torces in France?
- 5. "The Entente powers will have no reason to be grateful to Greece if they win." Explain fully.
- 6. Discuss the reasons why the Central Powers are ready for peace, and the Allies are not.

Our thanks are due for two handsome calendars, one from the Canadian Office and School Furniture Company of Preston, Ontario, and one from the St. John Business College.

#### CARLOS AND THE SNOWBALLS.

A TRUE STORY.

Once there was a little boy named Carlos, who lived in a hot country where no snow ever falls, and where boys never have skates or sleds, and can never make snow-balls.

When Carlos was eight years old he came to Canada to visit some cousins. Summer was over and the leaves were falling, and Carlos had to wear warmer clothes than he had ever had to wear before.

He did not like the cold windy days of November, and the dark afternoons. But one Saturday morning when he woke up, the room seemed very light, and when he looked out, there was the beautiful soft white snow lying on the ground.

All day Carlos played in the snow with his cousins. He learned to make good hard round snow-balls, and helped the other boys to make a snow man. He was so busy and happy that he did not mind the cold, and as he was a brave little boy, and good tempered, he only laughed when a snowball hit him.

When the tea-bell rang the hungry boys were quite ready to go in, but when the family sat down to tea, the mother said, "Where is Carlos?" "I think he has some secret," said Jack, whose room Carlos shared; "he ran up to our room and shut the door. Here he is, though," and Carlos came in, looking very rosy and happy.

"What are you up to, kid?" asked one of the

bigger boys.

But Carlos only laughed; and every one was so hungry and everything tasted so good, that they soon forgot about his secret.

Bed-time soon came, and Jack and Carlos went off upstairs, chattering away about how Carlos was to learn to skate when the lake froze over.

Jack's mother came in to turn down their beds, but Carlos ran across the room and snatched his pillow away. Then he gave a sort of howl.

"Where's my snow-ball?" he cried. "Who

took my snowball?"

"What snow-ball?" enquired his aunt. "Why, Carlos, your nightgown is sopping wet! And, oh dear, dear, here's a pool of water under the pillow. What have you been doing?"

Poor little Carlos was crying by this time.

"The boys must have taken my snowball," he sobbed. "It was the nicest one I made, and I wrapped it up in my night-gown, and put it under my pillow. I was going to send it to mother."

"Oh, you kid," shouted Jack, "to think you could keep a snow-ball in the house."

But his mother said:

"Hush, Jack, you don't know what you might think about snow if you had never seen it before. Carlos, dear, don't cry so. It was nice of you to want to send your snow-ball to mother, and when mother comes after Christmas you can take her out and make dozens of them for her. Tomorrow, we'll show you how snow turns into water in a warm place. But now, come and help me get some dry things for your bed."

#### THE QUESTION BOX.

E. M. H. Please state, with reasons, which is correct, "I am feeling bad," or, "I am feeling badly," when used in the sense of not feeling well.

The first form is correct. The rule is: After the verbs be, look, taste, smell, feel, and a few others, use an adjective to express quality or state of the subject, and an adverb to express the manner of the action. The colloquial use of the adverb is quoted as a "common error" in some grammars. Mason has the following note:

Some persons have the mistaken idea that they are using better English when they say, "The rose smells sweetly." "His voice sounded harshly," etc. It comes to much the same thing whether we say, "He arrived safe," or "He arrived safely." But no one in his senses would say, "He seems honestly," for, "He seems honest," or, "I feel cold!"

A few writers defend the use of "badly" as an exception to the rule, on the ground that "bad" may be ambiguous. "He looks bad" might be taken to mean, "He looks like a bad man."

In Bishop Welldon's book of reminiscences, just issued, there is a capital school story. A teacher of geography told her pupils that Cambodia is as big as Siam. In due course this appeared as "She says Cambodia is as big as she is."— Teachers' World.

#### WHO, WHAT AND WHERE.

QUESTIONS FOR JANUARY.

DOMESTIC AFFAIRS.

(All from standard novels.)

1. What supper was a disappointment because the host thought the asparagus not quite boiled enough?

2. Who had an exquisite art of making her cleanliness more uncomfortable and unacceptable than dirt itself?

3. Who thought that to wear the same curled front on Sundays and weekdays "would be to introduce a most dream-like and unpleasant confusion between the sacred and the secular?"

4. What family were confused at being caught playing "Hunt the Slipper," by two great acquaintances from town?

5. Where was an assault repelled by a dish of scalding hot kalebrose?

# QUESTIONS FOR DECEMBER. (All from one author.)

1. Where does the winter thorn blossom at Christmas?

2. What story was read aloud by the author at Francis Allen's on Christmas Eve?

3. To whom did the merry bells of Yule bring "sorrow touched with joy?"

4. Who were "sick for the hollies and the yews of home" at Christmas time?

5. What happened on "that day when the great light of heaven burned at his lowest in the rolling year?

#### Answers.

#### (All from Tennyson.)

1. At Glastonbury, where the winter thorn blossoms at Christmas, mindful of our Lord — The Holy Grail.

2. Morte D'Arthur. - The Epic.

3. To Tennyson, on the Christmas after Arthur Hallam's death.— In Memoriam, 28.

4. Walter Vivian and his friends.— Prologue to the Princess.

5. The last battle of King Arthur.— The Passing of Arthur.

The questions on Tennyson brought the best answers that have yet been received. Eight papers came in, and seven answered all the questions correctly.

Marks allowed, 10. M. L. L. Club, Jill, D. H., Alert, Dick, Anon, Waterloo, 10; Limbo, 8.

#### ESSAY COMPETITION.

In our last number we recorded the name of a New Brunswick girl who won distinction in a League of the Empire essay competition. We hope that her success will stimulate others to try for the prizes offered by the Canadian Branch of the League.

#### THE LEAGUE OF THE EMPIRE.

Canadian Branch.

Toronto.

HON. PRESIDENT.

His Royal Highness the Duke of Connaught.

Chairman for Canada, Principal Hutton, LL.D., University College, Toronto, Hon. Secretary for Canada, Mrs. H. S. Strathy, 71 Queen's Park, Toronto; Vice-President, Col. Geo. T. Denison, Toronto, Jas. L. Hughes, LL.D., Toronto.

The League of the Empire offers two prizes of books, value \$15 and \$10, for the two best poems on,

THE BATTLE OF ST. JULIEN OF SOME OTHER INCIDENT THEREIN, written by a boy or girl of any secondary school, private or public, in Canada.

#### CONDITIONS UNDER WHICH THE AWARD WILL BE MADE.

1. Poem not to exceed eighty lines.

2. To be received by the Hon. Secretary of the League of the Empire, Mrs. H. S. Strathy, 71 Queen's Park, Toronto, not later than May 1st, 1916.

3. Not more than two contributions will be accepted from any one school,—the two best contributions to be selected by the principal of the school.

4. The writer will sign an assumed name at the end of the poem, and will send his or her name, address and school, in a separate envelope together with the assumed name, to the Hon. Secretary.

5. The judges of the poems will be: Principal Hutton, University College, Toronto; Professor Pelham Edgar, Victoria College, Toronto; Professor Malcolm Wallace, University College, Toronto.

6. The award will be announced by June 1st, 1916.

It is understood that the candidates will receive no personal assistance in writing their poems.

#### BIBLE READINGS FOR OPENING EXERCISES.

Genesis 21:9-20. Genesis 24:1-14. Genesis 21:-22-34. 12. Genesis 24:15-31: Genesis 22:1-19. 13. Genesis 24:32-52. Genesis 23: Genesis 24:53-67. 14. Psalm 33. Psalm 90. St. Matthew 7:1-12. St. Matthew 8:14-27. St. Matthew 7:13-20. St. Matthew 9:1-8. St. Matthew 7:21-29. 18 St. Matthew 9:9-13,18-26. St. Matthew 8:1-13. 19. St. Matthew 9:27-38.

I think your paper is getting better every year. I could not do without it.—J. A. M., Dec. 23.

#### DOMESTICATED ANIMALS.

H. G. PERRY.

There never could have been a civilization as we know it today without the aid of domesticated animals. They were, and have remained, an essential factor of its origin, growth and continuance. Man very early in the history of the race felt the increasing burden of his struggle for existence as his numbers increased, and he soon learned to shift upon other animal species, captured from forest and plain, a part of the load that he had found himself unable to carry.

These captured (tamed) animals from the wild aided him in the chase, guarded his rude home, carried him from place to place, and gave him advantage in conflict with his enemy, provided him with food and clothing, and in many other ways ministered to his necessity, health and amusement.

It was through man's superiority over the other animals in the power of abstract thought, reason and will, that he was enabled to subjugate them. What he lacked in physical strength he more than made up in cunning. He soon realised his power, he asserted his authority, he became the lord of creation, and fettered the lower forms and made them his slaves.

There is every evidence that the man of the Glacial epoch had learned to domesticate animals, and when we find the Egyptians emerging from the Stone Age, into the earliest light of history, they already appear with cattle, sheep, donkeys, dogs and cats.

The chief steps in the progress of the domestication of animals are as follows:

There is, first, the capture, the taming, and the using of the individuals of a wild species.

"Second, is the rearing in captivity of young of this species, and the easier taming of these home-reared individuals because of their earlier acquaintance with man. In this rearing in captivity a new element enters almost at once. That is the choosing or selecting of certain of the young to be allowed to grow up, and again the choosing among those, when grown up, of those to be the parents of more young. This selection may be almost unconsciously done, or it may be made intentionally and carefully so as to preserve the most desirable individuals

and have them produce others like themselves."

"Third, comes the crossing of special individuals or hybridizing with other races in the hope of adding or combining in the offspring the desirable qualities of both kinds of parents. It is this careful selecting and crossing that are usually meant when animal breeding is spoken of. And our hosts of modern kinds of races of domesticated animals . . have all been produced by breeding. The acts of choosing and hybridizing and choosing again and rearing from these chosen offsprings, and again from each following generation, until a form is arrived at very different in appearance or habit from the original ancestors, are called also artificial selection. It was largely on a basis of the results of artificial selection, and his observation of the results of natural selection, that Charles Darwin founded his great theory of natural selection,which is, simply, that nature unconsciously chooses or selects among animal and plant individuals and kinds through the survival and reproducing of young by those types born with traits advantageous in the struggle for existence, this struggle being inevitable on account of the geometrical ratio by which animals multiply."

It is erroneous to make Darwinism synonymous with evolution. Evolution is a doctrine that postulates that all forms of life have been derived by gradual modification from earlier and simpler forms or from one rudimentary form; in other words it is the doctrine of "descent with modification." The theory of Evolution dates, from the early Greeks, several hundred years B. C., but it was Darwin's explanation of this "descent with modification," in his great theory of "natural selection," that gave it universal acceptance. So we see Darwinism is the theory of natural selection as one of the factors - or causes, as he himself says, of the evolution of organisms.

"The art of animal breeding has reached in these later days, since Darwin's time in particular, a very high stage of development. It is fast becoming a science, because the breeders are studying the laws of variation and heredity and making their hybridizations on the basis of the scientific knowledge of these laws."

"An important thing to note in connection with animal breeding and artificial selection is that the selecting and modifying are all made to change the animals along lines wholly determined by man; lines that make the animals more useful or pleasing or curious to us, but not better fitted to survive in nature. In fact most of these artificially induced changes tend to unfit the animal for success in life unaided by man; they are mostly degenerative changes. The loss of flight, the shortening of legs, the overdevelopment of fat, the production of crests and plumes and ruffs, the loss of horns, the sluggishness and helplessness that characterize the domesticated animals of different kinds, are all characters and conditions of degeneration."-Kellogg's, "The Animals and Man."

The interest in animal breeding has led to the unravelling of the history of the origin of many of our more widespread and useful domesticated animals. The dog is said to be at once the oldest, closest, and most universal of all. "The Bushmen of Australia, the Esquimaux of the Arctic, the Indians of the pampas and prairie, the tribes of the scattered Pacific Islands, and the Caucasians of the world's great capitals, all have their dog companions." And they range in size from the tiny toy dogs, "that a lady can carry in her muff, to the great Danes and St. Bernards, that stand three feet high and weight one hundred and fifty pounds."

The races and types of dogs are numbered by the hundreds, but nowhere is the wild dog to be found. "The wild ancestors of the dogs are certain wolves and jackals of various lands. Dogs are descended from at least seven such wild species."

The house cats on the contrary . . seem to be all descended from a single wild species, the wild dun cat (Felis maniculata) of northeastern Africa.

"The horses of modern times can be traced back to two wild sources,"- one ancestor in northern Asia, from which the eastern horses have sprung; and one from Europe from which the horses of western Europe in general have arisen.

Geology indicates that America was the earliest home of the horse. The geological formations of North America, beginning with those of the Lower Eocene period, have yielded very complete series of fossil skeletons of the early horse. Most convincing series are to be seen in the museum of Yale University and

the museum of Natural History, New York City. The first skeleton indicates that its owner

was a small animal, about the size of a fox, with four toes well formed and splint of the first toe on the front feet, and three toes and splint of the fifth toe in each hind foot. It changed from age to age, keeping pace with the development of the great central plain, growing larger, gradually losing toe after toe, and showing marked changes in tooth formation, all of which are readily accounted for if we allow that it was all the while undergoing a change of habits from a low-land (marsh land) inhabiting animal to one frequenting the high plains, and constantly exercising its best means of defence in its struggle for existence — its speed. Some investigators think that it very early spread into Asia, probably by way of a land connection in the region now occupied by Behring Sea and Strait, and in its new home finally became the progenitor of the horse races of the world. The American branch entirely disappeared in late geological times, exterminated most likely by the panther.

The wild horses on the plains of America have descended from European importations brought over by early explorers. On which of the British Isles do we find wild ponies? On what Nova Scotia island do we also find ponies? How did they get there?

The many races of cattle have all been derived from two sources,- the wild Banteng of southern Asia, and the wild ox of Europe; from the latter our more important types have descended. The wild cattle of America have come from importations brought out by explorers.

Breeders are now attempting a cross between the cow and the American bison, and are meeting with some success. The hybrid is an excellent beef animal. The largest herd is owned in Ontario.

Our different races of sheep seem to have been derived from three wild species, - one of which lived in southern Europe, another in Northern Africa, and the third in western Asia. Most of the present European and American races have descended from the Asiatic species. Man has been breeding sheep since the early Stone Age.

The wild boar of Europe, and another species of eastern Asia have given us our races of domestic hogs: from the latter the pigs of China and most of those of Europe have descended.

#### Some Hints for School Work.

In studying the dog, cat, horse, sheep, cow and pig, compare them with one another as to (a) size, form, shape of the body, head and limbs; (b) hoofs and claws and number of toes for each, foot (hind and fore), teeth (their arrangement and general form compared with our own teeth), eyes, ears, etc.; (c) how each uses its limbs and the order in which the feet are placed in walking, running, trotting, galloping and leaping, and the natural gait of each; (d) their habits of feeding, the way in which each seizes its food, and what quantity is eaten per day, noting which animals are cud chewers and which are not, which are flesh-eaters, which plant-eaters, and which use the fore feet in eating and which do not; (e) the relative intelligence of each, traitsof character, etc. etc.; (f) the manner in which each lies down for rest, and gets up again.

For closer comparison the dog and cat may be taken together, the cow and the horse, and

the sheep and the pig.

Study the geographical homes of the progenitors of these animals. Which have the larger place in literature? Read stories of the dog, horse, etc. Note the general feeling of the various authors towards these animals. Can much praise be given the cat? It has for some time been regarded as the arch enemy of our song birds, and is now fast coming into disrepute as a menace to the health of our boys and girls, being a carrier and distributor of disease germs.

Make a census of these animals in your school district. Could any be dispensed with? Which, and why? What breeds of each are represented? Affix a valuation for each species. Why did man tame and domesticate animals? Of what value have they been to him? Are they of as much value to him today as they were one hundred years ago, before the advanced condition of arts and sciences?

In Government reports find the value of the dairy products for the Dominion, and for your Province. Find the value per capita of the population. How does your Province compare in this respect with those adjoining it? Study the conditions in the other Provinces in order to learn why they surpass or fall below your own.

Is beef exported or imported into your Province? How much per capita? If these comparisons show your Province below the standard, look for a remedy. By the concerted action of its teachers along these lines any Province would be greatly advanced in the course of a very few years.

Name other domesticated animals not mentioned in these outlines. Consider the different species in a similar way, and show the scholars how advance and improvement can be made in all lines of domesticated animals, and their great value to the country.

#### CURRENT EVENTS.

At the outbreak of the war, there was a prediction by an officer of high rank that it would last at least three years. A year and a half have passed, and there is not much reason for thinking that the war is yet half over. Germany is said to be ready for peace; but that means peace to be dictated from Berlin, and to be followed by the punishment of England for entering the war and driving German ships from every sea, and the punishment of the United States for prolonging the war by supplying munitions to those of the warring nations that are in a position to buy. Britain is not ready for such a peace, and will adopt some form of compulsory service to increase her armies in the field. Canada is not ready to submit to the German demands, and will double the number of recruits, and send them forward as fast as possible. India will send millions, if necessary; and our Allies, even those that have suffered most, are willing to continue the war. It is not strange that Germany, everywhere victorious except at sea, should think that this is the time for offering peace. She holds Belgium, and one of the richest sections of France. She holds Poland and Serbia, and has opened up railway connection with Constantinople. The Turks with her assistance have driven back a British army in Persia, and threaten to invade Egypt, while the attempt to force the passage of the Dardanelles seems to have been abandoned. Yet the great armies of Russia remain unbroken, and are again fiercely returning to the attack; the Germans in France have made no progress since their first onset was checked by the battle of the Marne; and the activities of the German fleet are practically confined to submarine warfare, if it is right to call it warfare, is most active in the Mediterranean, where some of the undersea boats display the Austrian flag.

The South Africans are quietly preparing to add German East Africa to the British Empire, and an army under General Smuts is moving in that direction. This German territory lies between British East Africa and Rhodesia. South of it the British hold Rhodesia, Nyasaland, Bastutoland, Bechuanaland, Swaziland, the Union of South Africa, and the newly acquired Southwest Africa, making altogether over fifteen hundred thousand square miles of territory; north of it are British East Africa, Uganda, the Sudan and Egypt, making as much more. If the Boers add German East Africa, British territory will then extend throughout the whole length of the

The swift success of the Austrian, German and Bulgarian armies in completely crushing Serbia in two months was to have been followed by the conquest of Montenegro by the Austrians; but the Austrians have been driven back. The Bulgarians also attempted to occupy Albania, and penetrated to the centre of that country; but the remnants

If the brave Serbian forces, supported by Italian soldiers anded in Albania, checked their advance, and such semblance of a government as there is left in Albania has declared itself in favour of the Allies. Greece and Roumania still remain neutral, with increasing probability that they will yet join the Allies.

The Italians continue their campaign against Austria, but with no very striking success, their movements greatly

hindered by winter conditions in the Alps.

Japan is sending a squadron of cruisers to protect her commerce in the Mediterranean, where two Japanese ships have been sunk by submarines.

Against the advice of friendly powers, President Yuan Shih-kai has been made Emperor of China. There have been several small uprisings against his new authority, but it would seem that the great majority of the people of China are in favour of the change.

Nearly all of Villa's soldiers, and all his leading officers, have surrendered to the Carranza government, and the situation in Mexico is now comparatively quiet.

A Labour Congress sitting in London has protested very strongly against the conscription measures adopted by parliament, and the three labour members of the government have resigned. It is remarkable that this protest against compulsory service comes just at a time when the people of the United States are finding it necessary to raise a larger army for defense, and some of their leading men, including ex-President Roosevelt, are strongly in favour of compulsory service.

In recognition of his services to Canada and to the Empire, Sir Thomas Shaughnessy, president of the Canadian Pacific Railway, has been created a baron. His new

That peat moss is better than cotton wool for making sterilized surgical dressings is one of the discoveries due to the war.

#### SCHOOL AND COLLEGE.

The student of St. Francis Xavier College have received from Mr. John A. MacDonald of Halifax the gift of a fine set of band instruments.

The late Mr. Joseph Matheson of Lower L'Ardoise bequeathed fifteen thousand dollars to Dalhousie University.

At the annual meeting of the School for the Blind, Halifax, the reports of the board of managers and the superintendent, Sir Frederick Fraser, showed that 167 blind persons had been under instruction during the past year, of whom eighty-four were males and eighty-three females. Of these twenty-five graduated or remained at home, making the total number registered December 1st, 1915, 142, of whom seventy-one were males and seventy-one were females. Of these ninety-three were from the province of Nova Scotia, twenty-seven from New Brunswick, six from Prince Edward Island and sixteen from Newfoundland.

Mr. H. R. W. Smith, professor of classics at St. Francis Xavier College, and organizer and captain of the O. T. C. of that institution, has gone on active service.

The girls of New Glasgow High School sent three large cases of Christmas gifts to Canadian soldiers in English Hospitals.

During the month of November the pupils of the Kentville public schools contributed \$64.54 to the Canadian Patriotic Fund.

At a concert given by the teachers and pupils of the Havelock, N. B., schools, on December 11, twenty-seven

dollars was taken towards the expense of fencing the school

Mr. Murray Baird of Fredericton is the Rhodes scholar this year from the University of New Brunswick.

Lieutenant Colonel G. W. Mersereau of Doaktown, N. B., has been granted leave of absence from his duties as Inspector of Schools, in view of his appointment to an overseas unit. Mr. P. G. MacFarlane of St. Stephen has been appointed to take charge of Inspector Mersereau's district.

Mr. MacFarlane's place as principal of St. Stephen High School will be taken by Mr. A. E. Tingley B. A., a recent graduate of Mount Allison

The annual conference of school inspectors of New Brunswick was held at Fredericton on December 29 and 30th. A meeting of the Text Book Committee took place on the 30th. At the meeting of the executive of the New Brunswick Teachers' Institute it was decided that the next meeting should be held in St. John on June 28, 29 and 30, 1916.

Dr. H. S. Bridges, superintendent of schools in St. John' has completed his twentieth year in this post, and has been re-appointed for another five-year term. At the December meeting of the School Board of the city, there was a unanimous expression of warm appreciation of Dr. Bridges' services in educational work.

Mr. Elmer J. Alexander has been appointed instructor in Grade X, St. John High School.

Miss C. C. Nason haas resigned her position on the school staff at Port Elgin, N. B.

The teachers of Port Elgin and the surrounding districts have formed a circle for professional study, and hold their meetings in the town High School. Principal Moore is in charge, and the book now under discussion is Miss Lincoln's "Everyday Pedagogy."

At a school concert at Rexton, N. B., December 17, the proceeds amounted to \$103.35, and are to be used for Red Cross work.

Over twenty of the recent graduates of the Bathurst N. B., Grammar School are now in khaki, and their names are inscribed upon the Roll of Honour of the school. The teachers on the staff have sent letters to such of those now representing the school at the front, assuring them of the sympathy and good wishes of both teachers and students.

Mr. J. L. Steeves, B.A., formerly principal of Dorchester schools, is at present confined to his home by illness, but expects to be ready for work again before the close of the present term.

At a special meeting of the Board of Governors of King's College, held at Truro, December 22nd, Rev. Dr. H. T. S. Boyle, Dean of Divinity at Trinity University, Toronto, was elected President of the University at Windsor.

Dr. J. D. Logan has been giving a course of seven lectures on the poets and prose writers of Canada at Acadia University. The lectures were open to the public.

Since the beginning of the year about thirty per cent of the men students at Mount Allison have left to go on active service. Lieutenant Frank Smith of the York and Lancashire regiment, addressed a large audience in Beethoven Hall on his experience in the trenches. Lieuten-

ant Smith, who was the Mount Allison Rhodes Scholar in 1912, has been at home on furlough, recovering from wounds received at Hill 70.

Two principals of school at Edmonton, Alberta, have received commissions in the 56th Battalion, stationed at Calgary, Mr. Locksley McKnight, formerly of Fredericton N. B., and Mr. L. B. Yule.

Professor des Barres, of Mount Allison University, has been appointed provincial organizer for New Brunswick of the Canadian Patriotic Fund.

#### WITH THE MAGAZINES.

The leading article in the January Century is "The Nation on Trial," by Eric Fisher Wood, author of "The Note-Book of an Attache."

Another important article is "The Hopes of the Hyphenated," by George Creel. The illustrations are by A.

In "Les Travailleurs de la Guerre," Arthur Gleason describes the life of the middle-aged French soldier, upon whom the real misery of the war falls.

Walter Hale contributes the second installment of "An Artist at the Front," describing with pen and pencil his experiences in the Artois sector in Northern France, the largest battle-field in history. Mr. Hale is the regular

war correspondent for *The Century*.

Walter Prichard Eaton, writer, and Walter King Stone, artist, celebrate in "Trees" the sagas of the American countryside. The elm, the white pine, the canoe birch, and the apple-tree are among those that figure in Mr. Eaton's prose and in Mr. Stone's pictures representing them in winter garb.

In "The Far Eastern Problem," J. A. P. Bland points out that Japan's position in the world will certainly be enhanced by the war and that it behooves the United States to understand her need of expansion, the result of conditions produced largely by the pressure and imitation of Anglo-Saxondom.

In "The Frontiers of Service," A. Russell Bond, associate editor of *The Scientific American*, describes a number of recent achievements in the world of invention.

Three short stories of varied appeal are "The Sixth Canvasser," by Inez Haynes Gillmore; "Jane Proposes,' by Ruth Comfort Mitchell, and "A Ticket to North Carolina," by Frederick Stuart Greene.

Stephen Whitman contributes the third installment of his serial of artist life, with its three heroines, "Children

of Hope."
Other features include: poems by Helen Hoyt, Solomon de la Selva, Anna Glen Stoddard, Sarah H. Cleghorn, Lewis Parke Chamberlayne, and George Siebel; "Current Comment," and "In Lighter Vein."

We congratulate the St. Stephen High School upon the very creditable appearance and interesting contents of their new magazine, *The Mercurian*, the first number of which was published on December 17th, 1915.

We have received the first number of The Teachers' Magazine published by the executive of the Teachers' Association of Prince Edward Island.

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#### New Brunswick School Calendar

1915-1916

1916.

SECOND DERM

Apr. 20th.—Schools close for Easter Vacation.

Apr. 26th.—Schools re-open after Easter Vacation.

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

May 23rd.—Empire Day.

May 23rd.—Examinations for Class III License begin.

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

May 24th.—Last day on which Inspectors are authorized to receive applications for Departmental Examinations. Reg. 38-6.

June 5th.—King's Birthday observed (Public Holiday).

June 9th.—Normal School Closing.

June 13th.—Final Examinations for

License begin.

June 19th.—High School Entrance Examinations begin.

June 30th.—Public Schools close for the term.

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