

# THE EDUCATIONAL REVIEW

VOL. XX. No. 4.

ST. JOHN, N. B., SEPTEMBER, 1906.

WHOLE NUMBER, 332.

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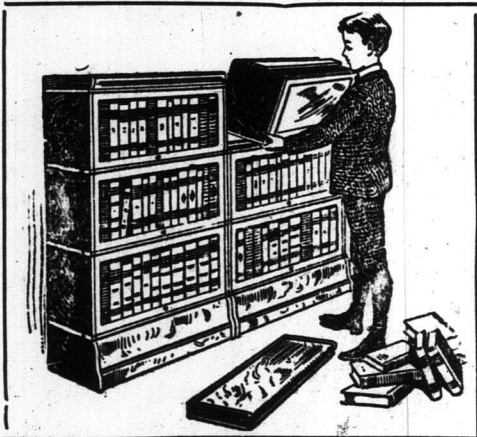
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Address all correspondence to

THE EDUCATIONAL REVIEW,  
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## SEPTEMBER.

White summer days grew brown and old,  
A wizard delved in mines of gold;  
No idler he—by night, by day,  
He smiled and sang and worked away.  
And, scorning thrift, with lavish hand  
He cast his gold across the land.

Still smiling, o'er the trees he wound  
Long russet scarfs with crimson bound;  
He drew a veil of purple haze  
O'er distant hills where cattle graze;  
He bathed the sun in amber mist,  
And steeped the sky in amethyst.

Low in the east, for crowning boon,  
He hung the golden harvest moon;  
And donned his coat of frosty white  
As twilight deepened into night.  
Then to the roll call of the year  
September answered, "I am here!"

PROFESSOR ELMER E. BROWN, of the University of California, has been appointed to succeed Dr. William T. Harris as United States Commissioner of Education at Washington.

A FINE opportunity is given the Nova Scotia teachers this month of attending the Provincial Educational Association at Halifax, and also the Dominion Exhibition in that city.

INSTEAD of the usual review of "Recent Books," which appears each month in these columns, we shall in this number let the books speak for themselves, by publishing short extracts from them.

WM. CROCKET, LL. D., has retired at a ripe age from the principalship of the New Brunswick Normal School. His long and devoted service to education, and the esteem and gratitude in which these services are held by thousands of his former pupils, now in every walk of life, must be a great solace to him in his declining years. All will join with us in the hope that these years will be spent in the quiet that crowns a well spent life.

MR. H. V. BRIDGES, M. A., Inspector of Schools, has been appointed principal of the Normal school in place of Dr. Crocket. Mr. Bridges is a graduate of the University of New Brunswick. He has had a large experience in educational work both as teacher and inspector, an experience that will prove valuable to him in this responsible position. The REVIEW joins with his many friends in wishing Principal Bridges many years of usefulness in this more enlarged and important sphere.

THE subject of our picture this month is one that will take the attention of every boy or girl. The thoughtful attitude of the boy, James Watt, as he watches the steam issuing from the tea-kettle, the mother at the open door with her rapt gaze, the father in another room; the simple furniture, the table of books, rude fire-place—all form a simple picture of a Scottish home of a century and a half ago. Teachers will find it a work of absorbing interest to the children to pick out the many objects in the old-fashioned kitchen.

### An Important Report.

The Provincial Educational Association of Nova Scotia, at its meeting in Truro last year, listened to a paper from Professor E. W. Sawyer, of Acadia College, in which he claimed that there is at present a serious lack of proper co-ordination in the work of the high schools and colleges, the result meaning serious loss and injury to the province. A committee was appointed, consisting of nineteen members, representing the academies and degree-conferring colleges of the province, with Dr. A. H. MacKay as chairman. The report of this committee, which is to be submitted at the approaching meeting of the Association, has been published, and is a most interesting document, dealing with the whole subject of secondary education in a most impartial spirit, and quoting from leading educationists throughout the civilized world in support of the recommendations advocated.

The report briefly, yet carefully, states the conditions and makes its recommendations:

The committee were unanimously of the opinion that, in mathematical and in science subjects, the standard in our schools has been raised in recent years and the work in them had been greatly improved and would compare favorably with that done in the schools of any other country; but that language studies had suffered from being comparatively neglected, and that our schools were in this respect behind those of the most progressive and enlightened countries.

This condition of affairs had resulted moreover in an unsettling of the relations between the high schools and the colleges. The advance in the standard in mathematical and in science subjects and the making of both of these lines compulsory on all high school pupils, had brought about in these an overlapping of the colleges by the schools, and, to avoid the waste involved in duplicating work already done in the schools, it has been found necessary for the colleges to re-adjust their courses in mathematical subjects by raising their standard by an amount equal to the work of about one session or year. On the other hand the putting down of Latin, Greek, French, and German, merely as extra subjects to be taken up or not just as the pupil or teacher saw fit, placed these subjects at a great disadvantage as compared with the others which had been made compulsory, and resulted in a considerable diminution in the number of those studying them and in less attention being given to them; for, with the spirit of emulation engendered by the government examinations, both teachers and pupils naturally directed their attention to those subjects from which there was no escape, and in which a certain minimum of marks had perforce to be made, if the pupil was to receive the coveted "pass" certificate. In the case of these languages therefore, and more particularly in the case of Latin and Greek, the schools had been falling away from the colleges, and although the colleges had been trying to keep in touch with the schools by repeated lowerings of their entrance requirements in these subjects,

a point had been reached when it had been found absolutely necessary to start beginners' classes in the colleges in both Latin and Greek in order to accommodate the many who now enter college with little or no previous instruction in those subjects, and who wish to acquire a knowledge of them. It is to be hoped that these classes, or that in Latin at any rate, may not be found necessary for more than a year or two after the present high-school course has undergone revision.

The committee believe that the course of study in the high school should be such as will not only furnish a sound mental equipment for those who leave the school to enter upon the business of life, but will also serve as a fitting preparation for those who may wish to continue their studies in the college or professional school. It is certainly one of the proper functions of the high school to serve as a connecting link between the elementary school and the college.

The committee believe further that the two objects which nominally appear different are after all essentially the same; that the aim in both cases should be to really educate rather than instruct, to improve the character and to develop and strengthen the intellect so as to bring it to the highest possible condition of efficiency in whatever sphere it may be called upon to act, rather than to cram the memory with a number of bits of knowledge however interesting or valuable these may be in themselves or in the eyes of the advocates of so-called useful knowledge.

The committee then proceeds to draw up a tentative course of study for the four years' high school, with *seven subjects* only for the ninth, tenth and eleventh grades, and nine subjects for the fourth year. To show what radical changes the report recommends, it may be stated that the course at present in use for the first three grades outlines an average of twelve subjects in each grade instead of *seven*, with all the languages except English as optional. The report recommends Latin as well as English for all grades, each language to count double that of any other subject.

The committee lays particular stress on two points: First, the superior advantages of training that the more condensed course would afford; and second, the great advantages arising from the study of Latin.

In an admirable appendix the opinions of many eminent educationists throughout the world on these two points are carefully summarized. The committee seems to have done its work with great industry and intelligence.

A correspondent, who is a competent critic, kindly sends us the following facts concerning the report:

The report shows that the committee took itself and its duties seriously. The work of its sub-committee on publication has been conscientiously and

thoroughly well done. The results of the general committee's deliberations and enquiries and the related appendices, all of which are presented in an unusually clear and interesting manner, makes this report by far the most important document relating to education in Nova Scotia that has appeared in many years. It is worthy of the widest possible publication, and should be in the hands of all who are interested in education in these provinces.

Unfortunately, whether justifiably or not, a considerable amount of the interest recently taken in school matters in Nova Scotia manifests itself in adverse criticism of things as they are. The business men complain that the boys and girls coming to them from the schools, as a rule, write badly, spell badly, and perform simple arithmetical computations slowly and inaccurately. Those looking for further good qualities complain that pupils in school are not trained to think, and that they are painfully lacking in the ability to make a continuous mental effort in one line for a reasonable length of time. Experienced teachers of good standing in their profession complain that the existing curriculum and regulations practically constitute a system of militarism for them, and results in over-pressure on their pupils. Whether the committee's report contains any comfort for the souls of any or all of these complaints, is for them to judge. The report is constructive at any rate, and gives suggestions and sets forth a well-reasoned-out scheme for the improvement of existing conditions. This is a great advance on mere restive carping criticism.

Whether one agrees with the conclusions reached by the committee or not, he cannot but accord praise to the report for one thing. It is perfectly straightforward, frank and ingenuous. On debated matters of general theory the publication committee is exceedingly careful to give clear and exact references to all its authorities. This in itself makes it valuable to teachers. These references show how easily any teacher can get first-hand information concerning the opinions of the leading educationists in America and Great Britain.\*

Some of these references are so useful to those interested in current discussions on educational topics that they are here quoted as given in the report.

\* 1. Report of the Committee of Ten on Secondary Studies, with the Reports of the Conferences arranged by the Committee. New York: American Book Co., 1894. Pp. 249. 30 cents.

2. Report of Committee of Fifteen on Elementary Education, with the Reports of the Sub-Committees: On the Training of Teachers: On the Correlation of Studies

Concerning Latin, the report says: "One point on which the committee were perfectly unanimous, was the very great importance of the study of Latin, and the desirability of its being taken up by every high school pupil. On this not a dissenting voice was heard. The committee, it might be noted, was not a one-sided one in its composition. Among its members were included teachers of various sciences, modern languages, mathematics, and other subjects, as well as teachers of classics; but all, without exception, were anxious to see Latin given a very prominent place in the high school course of study."

Concerning the courses of study in N. S. schools and the labors of educationists elsewhere the report says:

"The committee would remind those who take an interest in education in Nova Scotia, that it is now some fourteen years since any material change has been made in the course of study prescribed for our schools. Some of the results arrived at by these labors are open to us in a number of exceedingly interesting and valuable reports, and it would be strange indeed if we in Nova Scotia could not learn something from them. Among these there are four documents to which the committee desires to direct the attention of our teachers and the public in general." These are the reports mentioned in the footnote.

There are four appendices to the report. Appendix I. is on the importance of limiting the number of subjects to be studied; Appendix II. The importance of language as an instrument of education; Appendix III. The importance of Latin as an instrument of education. These three appendices consist of quotations from educational associations and committees in America and Great Britain, and from leading educationists in those countries and in Germany. Appendix IV. is on Secondary Education in Germany, England and the United States. It gives the courses and time tables in several of the leading secondary schools in those countries and the high school courses recommended by the Committee of Ten in the United States. The above synopsis is sufficient to show that the thanks of the teaching profession and the public are due to the publication committee for the able manner in which they have drawn up their report on the relations between the high schools and colleges in Nova Scotia.

in Elementary Education: On the Organization of City School Systems. New York: American Book Co., 1895. Pp. 235. 30 cents.

3. Report of the Committee on College Entrance Requirements. Chicago: The University of Chicago Press, 1899. Pp. 188. 25 cents.

4. Special Reports on Secondary Education in Prussia: (1) Problems in Prussian Secondary Education for Boys, with Special References to Similar Questions in England, by Michael E. Sadler. (2) Curricula and Programmes of Work for Higher Schools in Prussia. London: Wyman & Sons, 1899. Pp. 270. 1s.



### The Foundations of Chemistry as Seen in Nature Study.\*

By JOHN BRITTAIN, WOODSTOCK, N. B.

In order to teach effectively we must distinguish carefully between the trivial and the important—between the accidental and the essential. We are apt to spend too much of the precious school-time over the details which have little significance—the lifeless husks which enclose and conceal the living germ—thoughts. We think that we must do this in order to be thorough; but we deserve no credit for thoroughness in doing things which should not be done at all or which should be done elsewhere or at another time. Let us rather devote our skill and patience to the development, in natural and logical sequence, of the great facts and principles of nature and of life. Practice and the habit of observation will ensure a sufficient knowledge of details.

#### CHEMICAL UNION.

At the basis of all the natural forms we see—organic and inorganic—lies the fact of chemical union or combination. To learn to distinguish it, by its effects, from mere mechanical mixture, it is not necessary for the learners to wait until they have become acquainted with the molecular and atomic theories. Only very simple apparatus and cheap material are required for the experiments which follow.

Each member of the class is supplied with a small stick of *dry* white wood. The sticks are held for a few seconds in the flame of a spirit lamp. At once a soft black substance appears in the heated part of the stick—a substance which will mark on paper and which will be found to be insoluble in water. The pupils recognize this as charcoal which they may be told is a form of carbon. Now the question is, where was the charcoal before the stick was heated? We could not see it before that was done.

It will be found, by holding the hand above the flame of the lamp, that no charcoal issues from it—nor does it come out of the surrounding air. Hence it must have been in the stick at first. But why did the charcoal not then make the stick black?

Heat slowly and carefully a little of the wood, cut into small pieces, in the bottom of a closed test-tube. Clear drops of a tasteless liquid like water form on the inside of the tube above the wood; and as the water gathers, the charcoal appears. The

\* This article by Dr. Brittain appeared in the *Ottawa Naturalist* for July, 1906.

water evidently comes out of the dry wood and leaves the charcoal behind.

It can easily be shown, by means of a hand balance, that a piece of charcoal (from a stove) weighs less than a piece of the dry wood, equal in size, from which the charcoal was obtained.

It is plain then that *dry* white wood contains both charcoal and water, and that when the water is driven out by the heat, the charcoal can be seen. And so it appears that the water in the wood hides the charcoal, else the wood would look black, and the charcoal conceals the water, else the wood would feel wet.

It may now be stated that when two substances—as charcoal and water in this case—are so united together that they conceal each other's properties, the two substances are said to be chemically united or combined; and the substance they form by their union is called a chemical compound. Thus dry wood may be regarded as a chemical compound of carbon and water.

Next mix together, in a bottle, water and powdered charcoal. Do they unite chemically? They do not conceal each other's properties. The black charcoal can still be *seen* and the water *felt*. They now form, not a chemical compound, but a mechanical or physical mixture. But how can the charcoal and water be got to unite chemically? They must have been chemically separate before they united to form wood; but *we* don't know, at present, how to compel them to combine to form wood.

Put finely divided wood, to the depth of about an inch, into a test-tube loosely closed with a cork or the thumb—and apply heat until the tube is filled with smoky gas; then without withdrawing the heat remove the cork or thumb, and try with a match until you succeed, to set fire to the gas in the tube. How do you account for this combustible "wood-gas?" Since this gas will burn, it cannot be water-gas (steam); so we must conclude, since chemists find that pure wood is composed entirely of carbon and water, that this gas was formed in some way from these two substances in the wood. It should be noted here that the water set free by the heat soon becomes colored by some other liquid, and that a mass of charcoal remains in the tube after the water and the combustible gas have been all expelled. It will be found upon trial that this charcoal residue, although it will not burn with a flame like the gas, will slowly burn away with a *glow* when held by a wire in the flame of the lamp.

It seems from this experiment that when wood is heated in a closed space, it breaks up into other substances besides charcoal and water. This will explain too, in part, the manufacture of charcoal and wood alcohol by the destructive distillation of wood, that is by heating wood in closed vessels, and the production of coke (carbon) and coal gas from bituminous coal by destructive distillation.

Let the children char small samples of starch and sugar—try whether they contain water—and whether combustible gases are formed when they are decomposed by heat. The last experiment may be performed by heating a little starch and sugar in an iron spoon until they take fire. It will be seen that the solid substance does not burn, but the flame is a burning gas which rises from the solid matter. The starch and sugar are really being heated in a closed space, shut off from the air by the spoon below, and the burning gas above. In like manner, in the case of wood fire, we see that the flames are caused by the burning of the combustible gases, given off from the hot wood.

The children will now be able to describe the results of their experiments with sugar and starch, and to state and justify their conclusions as to the composition of both. They will doubtless conclude that, like wood, starch and sugar are probably composed of charcoal and water chemically united. They may then be told that sugar, starch and wood and several other substances of similar composition are called carbohydrates. The fitness of this name should be shown from its derivation.

In all this work, the teacher is supposed to act only as the director of experiments and as the referee in deciding the validity of the arguments and inferences. His skill is measured by the success he has had in inducing each pupil to do his own observing and thinking independently.

After a careful review of the whole ground, the children should retain a good working idea of chemical union—will see that heat tends to separate substances that have been chemically united—will understand what agricultural lecturers mean by carbohydrates—will know that when carbohydrates are heated in a closed place until they decompose they break up into carbon, water, and other substances liquid and gaseous—will see that a flame is a burning gas, and that a solid, as carbon, burns without a flame—and will be able to form an intelligent conception of many processes in nature and the arts which would otherwise be quite inexplicable.

The main topic in these lessons—for this work covers several lessons—is *chemical union*; but the other topics discussed are important, and all of them help in making clearer the idea of chemical union. This illustrates another method of making our teaching more effective, and saving time in the process. I mean that while we keep in view one principal topic we should always associate with it others which are significant and worth teaching in themselves, and at the same time are so related to the central topic that they can be used effectively in enforcing it.

A correspondent of the *Manchester Guardian* makes some very reasonable suggestions on the education of the agricultural labourer. He declares that the curriculum of the ordinary elementary school is not well fitted to do its work in rural districts. It is too literary, and bears no direct relation to the probable life-work of the village children. Many of them are to be agricultural labourers, but the last thing we dream of teaching them is the science and art of agriculture, or the scientific facts which will stand them in good stead in their future work. What, then, is his remedy? It is, briefly, that we should follow a plan similar to that which has been carried out in France, since 1893, "*écoles primaires supérieures*." The aim of these schools is to give technical instruction of a commercial, industrial, or agricultural nature to the boys in the French communes as they are drafted out of the ordinary primary schools. The Commune bears part of the expense, and the State helps with scholarship grants, and grants in aid of salaries. What these schools profess to do is "to direct the minds of the pupils from the first day to the last towards the necessities of the practical life which awaits them." "The agricultural course," says M. le Blanc, one of the chief authorities upon agricultural education in France, "makes it its special aim to teach the laws of Nature, and to instil into the minds of its pupils those scientific notions which they could never acquire at home. To attain this end lessons on the theory of natural and physical sciences, or even on agricultural sciences, are not sufficient. *Experiment* must give the students a substantial grounding, and this knowledge must be completed by further experiments intelligently carried out by themselves."

I feel that I must have the REVIEW in my work.  
T. T. G.

**S. J. Farnham.**

MISS A. MACLEAN.

At Ogdensburg, N. Y., is a monument with this inscription: "Soldiers and Sailors, Township of Oswegatchie, War of the Rebellion, 1861-1865." For this monument many designs were submitted, but the originality and beauty of S. J. Farnham's design won. She chose as her subject the "Spirit of Victory," representing this by a female figure in flowing garments with a wreath of laurel in her left hand and a flag in her right. The figure is seven feet in height and the flag standard rises four feet higher. The figure stands on a fluted Roman column and base of Barre granite twenty-four feet high to the top of the cap. Around the lower part of the column are four war eagles, scanning the face of the world as they stand posed on an endless fasces, representing strength and eternity. This bronze group is resting on the top of the base proper, and on each of the four sides of the base is a bronze shield, with inscription and decoration. Near the top of the column is a bronze wreath of maple leaves. "Victory" is nobly balanced, and expresses grandeur and power. The face is sad, and the head has a slight droop. This rendering is in accordance with the artist's idea that there must necessarily be sorrow and tragedy in every victory. The bronze soldier who stands on guard at the base seems a being who has lived and suffered and is possessed of soul. The artist considers this her greatest work as yet, but she has produced others of great beauty and merit.

In the Italian garden of Captain Emerson, of Baltimore, is a beautiful fountain, the design being three laughing nymphs, and the boy, Pan, who is clasping a bunch of grapes from which the water spouts. Mrs. Farnham's little son, "Jim," posed for Pan. He made an ideal model, entering into the spirit of his mother's conception, and the mischievous laughing figure of this joyous, winsome child in its utter primeval irresponsibility is most attractive. Beneath the fountain are these impromptu lines written by Mrs. Farnham:

In Arcadia, hallowed spot,  
 Sans reproache et sans culotte,  
 Graces in alluring shapes  
 Played and danced among the grapes,  
 None to question or to hamper,  
 None on fun to cast a damper.  
 Joyous spontaneity,  
 Knowing not propriety,  
 Would the All Wise Power saw fit  
 To unlace our lives a bit,  
 Give us room to breath, and be  
 Like the gods in Arcady!

S. J. Farnham is a fearless and dashing equestrienne, and well understands horse nature, and enjoys galloping over her western ranch as much as anything else in life. This fact accounts for the spirited bronze work called "Cowboy Fun," vibrant with life, irresistible force and swift onward motion.

Mrs. Farnham's marble bust of the beautiful Mrs. H. Bramhall Gilbert is a fine example in correctness of technique and perception of character. The Great Neck Steeplechase cup, won by Mr. W. R. Grace in 1904 is another specimen of her work, and it, too, shows her accurate knowledge of horses and her skill in depicting them.

And the marvel is that six years ago this sculptor did not know anything of the great gift God had given her. While recovering from a severe illness her husband brought her some modelling wax in the hope that it might help her to while away the hours of enforced inactivity. She at once fashioned in wax a recumbent figure of great beauty, representing Iris, the goddess of the rainbow. Having no proper appliances, she pressed into service surgical instruments of various kinds by way of armature. Her surgeons vouched for the correctness of "Iris" from an anatomical standpoint, and were amazed that it was an initial production.

Mrs. Farnham had the advantage of extensive foreign travel, and thus became acquainted with the masterpieces of ancient and modern sculptors in all lands.

Little teaching from the schools is possessed by this original artist. But she has tremendous earnestness. Her skilful hand and eye furnish the externals, and the soul which she puts into her work is, after all, that which makes the grandeur and assures the lasting value of a work of art. In her judgment the personality of an artist working from within must determine the particular aspect and treatment of the subject chosen. She likes best sculptures that are full of force and emotional expression. She puts her whole heart and soul into all she does, and those who have seen her work can only conclude that the virile strength and subtlety in execution, combined with her visual and temperamental gifts, insure to her a crowning future.

The season of bird migration has now begun. Many birds are already assembling for the journey to the south. Why do they go? When will they return? These and many other questions in relation to birds will furnish occasion for September talks.

Victoria is half way between London and Hong Kong.

**A Great Mediæval School.****"The School of the Palace."**

BY MISS CATHERINE M. CONDON.

Let us, in imagination, transport ourselves back to the ninth century of our era, say, about 805 A. D., and, finding ourselves at Aix-la-Chapelle, make the best of our way to the Palace of Charlemagne. We shall not need to ask our way; its turrets, battlements and fine arcaded cloisters will sufficiently indicate it. Before the massive gates stand the guards, in full armor, holding lance and battle-axe. Like their imperial master, they are of great stature and strength. Passing them, we go through the court-yard, where military and athletic exercises are proceeding with vigor. Presently, at a given signal, the different groups of various ranks and ages break up and march into the school-room, the great hall of the palace. Among the royal children are Pepin, King of Italy, and Louis, King of Aquitaine. They are still young, for they were taken to Rome by Charlemagne, their father, in 801, and anointed by the Pope at the age of four and three respectively. They probably enjoy a visit home, as well as other little boys who do not wear a crown.

This "School of the Palace" is a mixed one. Some have thought it an academy for learned conversation and communion only. But instruction was imparted in literature, and such science as was then possible. Special stress was laid upon the teaching of religious doctrine and practice, as was natural, when the only teachers were ecclesiastics.

But careful primary work would be as necessary then as now to prepare for the study of the liberal arts; and still later in life than this, Charles, finding his good right hand more facile with the sword than the pen, was practising penmanship, desiring to improve it; and no doubt some one in the school skilful in the writing and illumination of manuscripts would assist the Emperor, who would no doubt avail himself of the splendid manuscripts received as presents from the Emperor at Constantinople; and from the Caliph of Bagdad, the renowned Haroun-al-Raschid, who also sent him an elephant, apes, rugs and carpets, and a curious striking clock, with many other rich gifts. The tone of the school must have been wonderfully liberal, for he charges the bishops and abbots that, "they should take care to make no difference between the sons of serfs and freemen, so that they might come and sit on the same benches, to study grammar, music and

arithmetic." Many a clever serf repaid this generosity by signal service in church and state.

Let us mark the founder of the school. Crowned and robed, he is seated upon his throne in the stately pillared hall; but you will need no regalia to recognize him. That form of heroic mould, with its instinctive dignity and grace, the dome-like head with its white flowing locks, its large and piercing eyes, with its grandly cut features, well express his intellectual power, and mark him out as standing in the front rank of the great men of all time; as soldier, statesman and scholar.

During his reign of forty-six years he carried on fifty-six campaigns, one, that against the pagan Saxons, lasting thirty years. He conquered the Avars (Huns) by the same piece of strategy that won for Napoleon the battle of Austerlitz—a double base of operations against the enemy. As a statesman, he won as much by his diplomacy, which was at once shrewd and generous, as by the sword; and it may be doubted whether he would have so completely subjugated the savage Saxons if he had not won over their able chief, Witikind, by his magnanimity and fair dealing.

But Charlemagne was not content simply to conquer, he determined to Christianize the rude pagans and to introduce law and order, and thereby to render his dream (a vain one) of a re-established Roman Empire, a solid and permanent fact. But he would make it a Holy Roman Empire. Therefore he built churches, monasteries, and cloistral schools among them; and when they destroyed them, and their inhabitants, with fire and sword and unutterable cruelties, he did the work over again, for there was no turning aside that indomitable will from its purpose. He was, however, a true German, and revered what was good in their old institutions, and respected, as far as possible, their sentiments and traditions; but, said he, "the Saxons must be Christianized or wiped out." It has been quaintly said, "he inflicted baptism upon them." The noblest men do not rise altogether above the spirit of their time.

As a scholar, his attainments were remarkable for that age; he was a good Latinist, and understood Greek. He was fond of the "joyous art," and brought musicians from Italy to improve it; and like Luther, 700 years later, reverently ordered the "service of song in the house of the Lord." He was also a diligent student of logic and astronomy. Only four of the winds had been named before him, but he distinguished twelve, and

gave to them and the twelve months of the year Germanic names, and drew up, with some scholars of his academy, a Germanic grammar. He collected and preserved the old heroic ballads, songs and verses, which are largely the foundation of the Nieberlungenlied. His grandfather, Charles Martel, on the field of Tours, 732, had inflicted a crushing defeat upon the Saracens, which defeat, it has been pithily observed, "settled the question whether the Koran or the Bible should be a text-book at Oxford."

His father, Pepin le Bréf, had by his protection of Pope Stephen, and his bestowal of the Exarchate of Ravenna laid the foundation of the temporal power of the Holy See. This gift, confirmed and enlarged by Charlemagne, led to his being crowned Emperor of the Western Roman Empire, 25th December, 800 A. D.

Henceforth, German barbarism was to be more and more softened by Italian learning and refinement. The kingdom left by Pepin was to expand into an empire stretching from the Ebro in the west to the Danube, and the confines of the Eastern Empire, and from the North Sea to the Mediterranean, and to embrace Italy from Aosta to Calabria.

The "school" justified itself, for we read of no fewer than twenty-three great dignitaries trained in it, eminent in Church and State, among them Pope Sylvester II, who was also an author.

At the head stands the director, Alcuin, who was an Englishman, a native of Yorkshire, still famous for stalwart men, rich musical voices and shrewd business faculty. No doubt the tutor, trusted friend, and adviser of Charlemagne, exhibited to the full their fine wholesome characteristics. His writings, thirty in number, by their excellence and variety, attest his learning and industry. Our own Egbert, who had fled from Offa the Terrible, probably learned lessons of wisdom in the famous school of his protector.

Eginhard, considerably younger than Alcuin, received in the school the scientific instruction necessary to fit him for the position of "Chief of the Works to the Palace." He has left us interesting Chronicles and a biography of Charlemagne, and the only contemporary account of the heroic stand of Roland at Roncesvalles (Roncesvaux).

Hincmar afterwards Archbishop of Rheims, near the end of the century, gave a striking proof of his ability. Adalbert, Abbot of Corbie, and cousin of Charlemagne, had written a treatise, "*De Ordine Palatii*" (Of the Ordering of the Palace)

It contained a very full account of the "*Missi Dominici*," which institution has always been considered a mark of Charlemagne's genius. These were officers appointed to visit every part of the empire, to look into the minutest details, and, if necessary, to take prompt and decisive action, and to report everything to the emperor, especially the causes of any trouble. His treatise also gave a full account of the national assemblies convened by him, stating their mode of proceeding, the due arrangement of clerics, laics, etc. The freest discussion was invited, but while the most absolute power was really exercised by Charlemagne, these deliberative assemblies must, by his wisdom, tact and liberality, have been wonderfully educating to a barbarous and disunited people. No fewer than thirty-five were held between 776 and 813, A. D. Adalbert's work was lost, but Hincmar almost, perhaps entirely, gave its substance in a letter of instructions, when near the end of the century (ninth) he was applied to by the grandees of Carloman, the son of Charles the Stammerer, for an account of the government of Charlemagne. Quite an intellectual feat for so old a man, and, for posterity, a most valuable piece of work.

The Heads of the "Schools" took names from antiquity. Alcuin was Flaccus (Horatius Flaccus); Angilbert was Homer; Theodulph, Pindar; Charlemagne was David; Eginhard, most appropriately, Bezaleel, after the artist-nephew of Moses. Certainly those who took the names did not dim their lustre. But it was not all study. There were hunting parties and sports, and especially bathing in the tepid waters for which Aix-la-Chapelle has been famous from Roman times to our own day, a sport loved by the emperor. Sometimes as many as one hundred persons would be invited to disport themselves with the emperor, whose health was perfect, until his last short illness of palsy.

Some time before his death he had set aside two-thirds of his property for religion and education, reserving one-third for disposal at his death. He had founded twenty-one Metropolitan Sees with monasteries and cloistral schools. His bounty to suffering Christians, even in far-off eastern lands, was unstinted. It may well indeed be doubted, whether any one man has done so much to lift Europe out of the slough of ignorance and barbarism as Charlemagne.

I find the REVIEW a great help in my school work, and would not do without it. A. A. P.

## Our Rivers and Lakes—No. II.

## I.—The River St. John.

By L. W. BAILEY, LL. D.

Those readers of the REVIEW who may have perused the last chapter of this series of sketches will recollect that a river is therein shown to be comparable with a living thing, and as such to have a history, involving periods of youth, maturity and old age, each marked by well-defined characteristics. We may now proceed to see how this comparison finds illustration in the rivers and streams of Acadia.

We may naturally begin with the St. John as being not only the largest river in the Maritime Provinces, but also the largest to be found in eastern America south of the St. Lawrence. It is also the most varied, and in different parts of its course affords the best examples of the subject under consideration.

The St. John river is usually regarded as having a length of four hundred and forty-six miles, and a total drainage area of about 26,000 square miles, embracing considerable portions of Maine and Quebec, as well as of New Brunswick. It is navigable by ordinary steamers to Fredericton, a distance of eighty miles, by flat-bottomed steamers to Woodstock, sixty miles above Fredericton, and by canoe from Woodstock to its sources in the St. John ponds on the western side of Maine. Many of its tributaries, including in New Brunswick the St. Francis, Green, Grand, Tobique, Nashwaak and Oromocto, are also similarly navigable when the water is at ordinary height. The head of the Tobique in Nictor Lake is ninety-two miles distant from its mouth, and a little over eight hundred feet above sea level. The St. Francis and Madawaska originate in the Province of Quebec, and north of the great St. Lawrence "divide;" the head of the South Branch is said to be 1,808 feet above sea level, and that of the Northwest Branch 2,358 feet, but where the river St. John enters New Brunswick at St. Francis, the waters are not more than 606 feet above tide level. Assuming this latter to be the case, and the distance from the sea to be as stated above, the average slope for the entire river within the limit of the province would be one and a half feet per mile; but as there is a descent of 117 feet in the Grand Falls gorge alone, and in the summer months practically no descent below Fredericton, the rate for the portion below the Falls becomes only eight inches, and below the city last named nearly *nil*. Thus the river becomes naturally

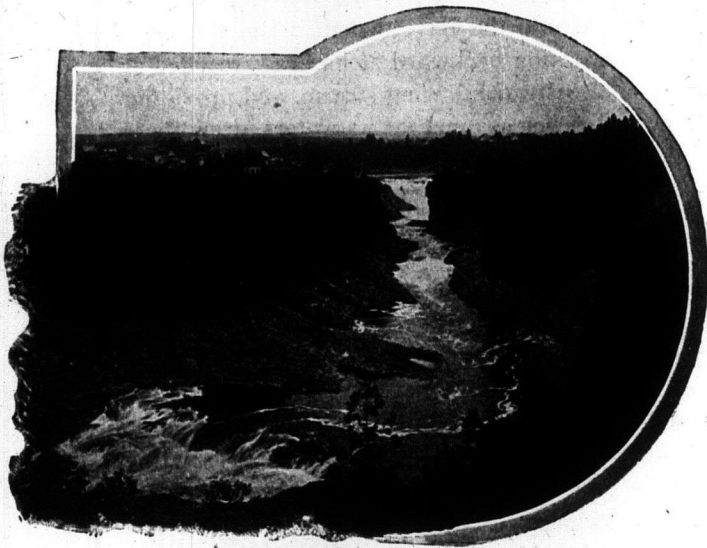
divided into sections, which must be considered separately, especially as these sections are otherwise in marked contrast.

The first section which is to be distinguished is that between the sources of the stream and Edmundston. The course of the river, as a whole, is here northeasterly, evidently determined by the course of the hill ranges between which it flows. It is what physical geographers call a "consequent" river, meaning that the direction is the consequence of a natural pre-existing valley and slope. It is probably also in this part an *old* river, as the valley alluded to is almost certainly of very ancient date. Indeed it is probably only the discovered head of a stream which originally formed no part of the modern St. John, but continued its north-eastward flow to connect with that of the Restigouche, and thus emptied into the Bay Chaleur. But the main St. John, working backward at its head, reached at last this old eastward flowing stream, and providing a new and easier channel for its waters, drew these off, leaving the Restigouche as we have it to-day, separated by a short carry only from the waters of the St. John. This is an illustration of what has been termed the "piracy" of rivers, or the "migration of divides," of which we shall presently notice some further illustrations.

But while in one sense old, the section of the river under review is also "*young*," for its current is swift, its channel often narrow and V-like, its bed strewn with numerous boulders, originating more or less dangerous rapids. These boulders are old moraines, dropped across the valley's bed by the melting ice of the glacial period, and the stream is now actively engaged in removing them. It is a *rejuvenated* stream, a stream in second childhood, striving for the second time to carve out for itself a smooth and unobstructed way.

Near Edmundston the main river begins to turn to the south, and we enter upon a second section extending to the Grand Falls. The wide, open character of the valley, the gentle slope of its sides, the comparatively slow current, and the extent of intervales and islands, all indicate maturity. On the other hand, at the Grand Falls, a sudden and marked change comes in. The old pre-glacial channel, plainly recognizable in the rear of the village, where it gives convenient passage for the rails of the C. P. R., having been completely obliterated by the debris of melting glaciers, the river has ever since been, and is now engaged, in making for itself a new passage. And the process is one well worth

study. The rocks to be traversed (calcareous slates which are almost limestones) are not very hard, but are of different degrees of hardness, therefore tending to determine irregularities both of course and descent. The stream is so narrow and the bluffs on either side so nearly vertical that in time of freshets the crowded waters are compelled to rise far above their ordinary level, then becoming a scene of wild commotion, at the same time that the height of the main pitch becomes materially reduced. This is ordinarily about eighty feet, while the total difference of level between the upper and lower basin, separated by about a mile of "gorge," is 117 feet. In the bottom of the gorge are the "wells," an interesting feature, being circular holes from one to ten feet wide, and sometimes twenty



GRAND FALLS GORGE — St. John River.

feet deep, made by the grinding action of pebbles driven by the whirling waters, and illustrating one of the methods by which the whole gorge is being excavated.

Below the Grand Falls the character of the river again changes. It comes in now transverse to the hill ranges instead of with them, as in the upper portions; and here we find the most marked evidences of that former higher level of the waters without which these ridges could never have been crossed. They are in the form of terraces, steps or benches, lying along the sides of the valley and following its sinuosities, but composed of materials which, both in character and arrangement, show clearly that they must have been laid down by the river, as similar deposits are being laid down now.

Sometimes as many as six or seven of these ter-

aces will be seen one above another, each marking a stage in the excavation of the present valley, and the highest perhaps two or three hundred feet above the level of the stream, as it exists to-day.

In this third section of the river, extending from Grand Falls to Fredericton, another feature is the deep and narrow character of the valley, the general scarcity of islands, and the rapidity of the current, all indicative of comparative youth. At the Meductic falls probably once existed, now represented by a somewhat dangerous rapid, and here again, as at Grand Falls and the Aroostook falls, we find evidence of old pre-glacial and now abandoned channels.

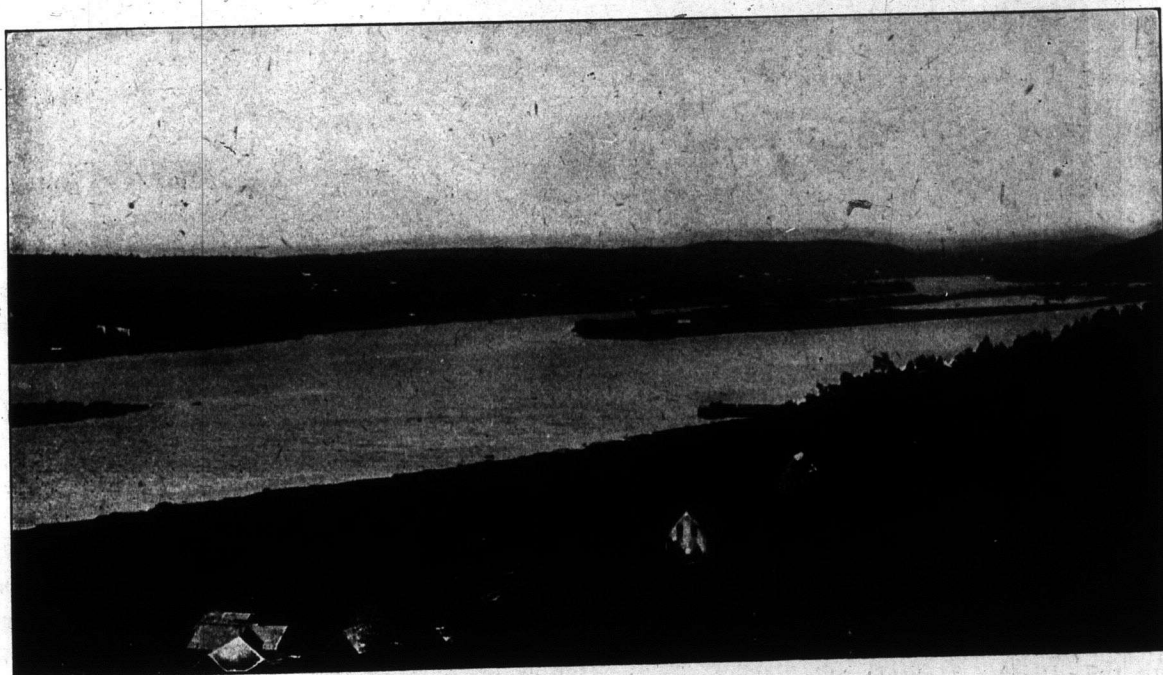
Not far above Fredericton the scene is again changed, and quite abruptly. From a width of hardly quarter of a mile it becomes twice, and in places three or four times that amount. The bordering hills are lower and their slopes more gentle, while between their base and the river channels are extensive flats or intervalles, some subject to annual overflow, others like that upon which the city of Fredericton is built, reached by the water only under such exceptional conditions as may result from an ice jam below. Here also begin the islands which at once add so much to the beauty of the river, with their elm-fringed borders, and to the revenues of their owners by their exuberant fertility. These intervalles and islands indicate that the stream is here *dropping its load*. Wear or corrosion is on the sides not upon the bed of the stream, and the tendency to fill up makes the employment of dredges necessary. The stream has reached the "bare level of erosion," and except in times of high water the outward flow is checked or even practically reversed by the inward flow of the tide. Here again we find evidences of a former higher level of the river, probably during the Glacial period. Beneath the surface deposits of the flat of Fredericton we everywhere reach in sinking beds of pure clay, the ascertained depth of which is over 200 feet, and from which remains of large fossil fishes have been removed. Hence the river must in some former period have flowed through a channel 200 feet lower than the present one, and thus could only have been cut when the land stood that much higher. Having been cut, by water or ice, or both, during the period of glacial elevation, it was subsequently filled for several hundred feet with clay as the land subsided, and finally, with another, but less marked elevation, cut its present bed at least 200 feet, as stated, above its former one.

The condition of things sketched in the last paragraph continues from Fredericton to Hampstead, in Queens County, where, with the existence of rocks which are at once more enduring and more disturbed, another total change in the scenery of the river takes place. Without attempting to describe the new features in detail, I may note two or three points which are of special interest, either as exhibiting contrasts with the parts of the river already reviewed or as bearing upon its probable history.

Perhaps the most striking feature of the lower St. John is the fact that it here presents a series of long and narrow parallel troughs, connected by

ducing them as a small map, a good illustration of what is known as "trellised drainage," on account of its resemblance to trellis work as employed by the gardener. It also suggests, what is undoubtedly true, that the valleys now connected were at one time distinct, each being occupied by its own stream, and with the direction of the latter "consequent" upon that of the bordering hills; but subsequently through the backward working of the main St. John these were successively tapped or "pirated," and their waters taken to swell those of the main river.

And here another and most remarkable feature



ISLANDS ABOVE FREDERICTON — St. John River.

transverse depressions. The Long Reach, with its extension in the Belleisle valley, and the great Kennebecasis trough, about twenty miles long, and in its western portions 200 feet deep, or more, are the most conspicuous examples, but to these may be added the depressions of the Washademoak and Grand Lakes, all parallel to each other, and to the great trough of the Bay of Fundy. The connecting transverse valleys are those of Wickham, prolonged southward in Kingston Creek, the Short Reach, a continuation of the Nerepis valley, the Grand Bay and the Narrows, while indications of the same north and south depression is to be seen in the soundings in and off of St. John harbor. We have in these features, best appreciated by repro-

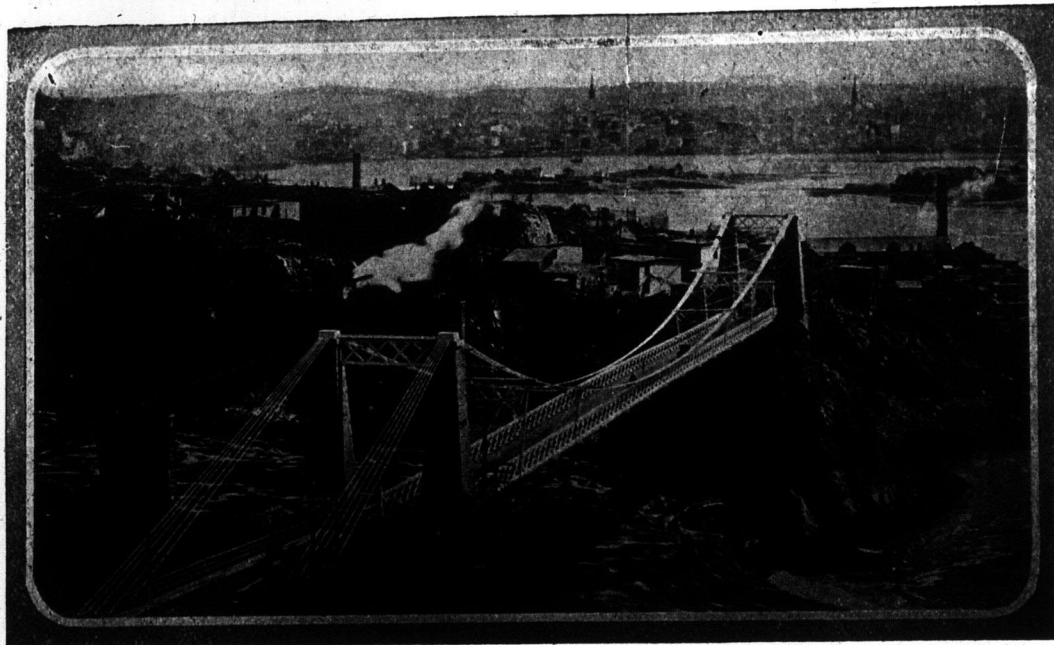
comes in. At its mouth the waters of the great river, with a length of nearly 500 miles, and gathered from three provinces, are met by the phenomenal tides of the Bay of Fundy, the struggle between the two being at the same time mainly confined to an area less than a mile in length, and where narrowest, not over 200 yards in breadth. Here are the "reversible falls," with the waters falling either in or out, according as tide is high or low, while for a brief interval the turmoil which ordinarily characterizes the scene and makes the passage impossible, is replaced by a condition of repose, during which vessels of all kinds may safely move to and fro.

One point more. As the lower section of the



St. John river is below tide level, the waters being brackish for many miles above its mouth, while even at Fredericton there is during low water a "set back" of several inches; it follows that the valley must have been excavated when the land stood higher than now, and was afterwards depressed. It is therefore an example of a "drowned" river.

Indeed its old mouths, one at Manawagonish and the other through the Coldbrook valley, are now filled up, and the present channel through the Narrows is comparatively "young." Other provincial illustrations of "old" and "young" rivers, "rejuvenated rivers," "drowned rivers," "river piracy," etc., will be given in another chapter.



REVERSING FALLS — St. John River.

#### "The Schoolmaster Abroad."

In that admirable picture of Southern life, "The Autobiography of a Southerner," now running through the *Atlantic Monthly*, the following incidents occur:

I once read a letter written by a Southern planter to his business correspondent in Boston in the forties, asking him to send by boat "ten kegs of nails, a dozen bolts of cloth, and a well-conditioned teacher" for his children. The teacher lay in his mind along with cloth and nails.

And Professor Billy picked up a story that told more than all the school reports. Some one asked a country woman how many children she had. "Five,—two married, two dead, and one a-teaching school."

From my boyhood I had heard our public men praise our people as the most contented and upright under heaven, home-loving and God-fearing. But I encountered communities from which all the best young men had gone, and nobody could blame

them; and many who were left had homes ill worth loving. Slatternly women, ill-fed, idle men, agriculture as crude as Moses knew,—a starving population, body, mind and soul, on as rich a soil as we have.

"'Pears dey gwine ter eddicate everybody, yaller dogs an' all," said one countryman to another. "Presen'ly dey'll 'spec' me and you to git book-larnin', John, an' read de papers."

"I'd lak to know who gwine ter wuk an' haul wood in dem days," said John.

"Yes; an' atter you larn to read, dat ain't all. It costs you a heap o' money den. Yer got to buy a paper; an' did you know dat a daily paper costs six dollars a year? Atter dey larn you to read, dey don' give you de paper, nor no books nuther."—*Nicholas Worth, in the August Atlantic.*

Yukon District is almost as large as France.

I enjoy the REVIEW. I find it both interesting and helpful.  
M. S.

**After Vacation.**

Most sincerely do we hope that your vacation will be in every way refreshing, restful, and delightful.

Vacation is never an end in itself, it is but a means to an end. Its joy and its usefulness are always involved in what comes after, in what results from it. Every conceivable privilege for enjoyment in July and August fails to provide a relish if one is fearful that the vacation will last the year round. The fact that it is to have an end, followed by opportunity for profitable employment, gives zest to the days of rest.

Assurance of an increase in salary and professional opportunity also materially adds to the joy of the long vacation. How much more joyous should a vacation be when there is a consciousness that because of it the teaching itself will be of increased value to the pupils to whom we go?

The rest feature of a summer school to a teacher of the right spirit comes from the fact that ever after she is to do better work for her pupils. She can rest better at work than at rest when her rest comes from the joyous consciousness of that which is to come after vacation.—*Selected.*

**Parts of Common Things.**

Here is a language lesson that will stimulate a good degree of thinking and observing if rightly managed. It will also form a basis of pupil study on the part of the teacher; it may surprise the teacher to discover how little some of the children know about matters which are usually regarded as very simple and commonplace.

Let each pupil write a list of the parts of some of the objects named in this list and others, also the use or position of the various parts: A wagon wheel, a box, a shoe, a bicycle, a knife, a desk, a coat, a plow, a rake, a hat, a window, a carriage, a book, a chair, a boat, a stove, a clock, a gun.—*Selected.*

Dr. Harrison, president of the University of New Brunswick, has resigned to accept a pension from the Carnegie Fund, amounting to over thirteen hundred dollars a year. The trustees of the fund also testify to the high appreciation of the services which Dr. Harrison has rendered to the cause of education in New Brunswick, a testimony that will be cordially endorsed throughout the provinces.

A similar pension awaits Professor Bailey when he resigns, which it is said will not be this year.

**A Rainy Day.**

The rain is falling very fast,  
We can't go out to play,  
But we are happy while in school,  
Tho' 'tis a rainy day,"

sang sixty-five fresh little first-grade voices. And indeed it was a rainy day. It had literally poured since daybreak, but only a few of the babies were missing. They knew that rainy days were "happy days," and had begged to come to school; and the parents, knowing that special care was taken of them on these days, had sent them. Some had come in delivery-wagons or private conveyances; some in the arms of father or strong elder brother; not a few had trudged through the rain and mud,—but nearly all had come, and the array of rubbers and umbrellas in the hall suggested Psyche's task of sorting the grain in Venus's storehouse, and their restorations to rightful owners seemed likely to be accomplished only by the assistance of some super-human agent.

And true enough it was, too, that they could not go out to play. Yet a look of bright expectancy was on every face. The janitor came in, bringing a pail of water and some cups, and paused in surprise as he was greeted by a clapping of little hands. They knew what was coming now. The janitor opened the windows, and as the signals were given all the children rose and filed past the water-pail, where each was offered a few swallows of water. After drinking, each ran lightly to his seat, or "flew" with gently waving "wings." It required but a few minutes, yet all were in a glow of cheerful excitement. Then, a ladder was quickly sketched on the floor, and all who cared to—and who did not?—tried to hop over all of the rounds. Many of them hopped on, and proud indeed was the small laddie who "walked clear to my seat on one foot." Quiet? No. Orderly? Yes.

A few minutes were spent in games. One division playing at a time, the other singing "Pussy White," "Chick-a-dee," and "Poor Babes in the Wood." Then, as the bell rang and the triangle sounded for the older children, the first child in each division was given a flag and they were "brave little soldiers," marching through aisles and cloak-room and back to seats, rested and happy and ready for work.

All who did not ask to leave the room were dismissed a few minutes early, and went home wrapped up as carefully as when they came.—*Selected.*

Messrs. D. C. Heath & Company, Boston, announce the publication in September of The Select Poems of Tennyson, to be edited by Archibald MacMechan, of Dalhousie University, whose sympathetic editing of sundry nineteenth century masterpieces has given the literary world assurance of his skill.

**A Chemical Trick.**

When we happen to witness a phenomenon which seems to violate natural laws, we are not likely to forget its cause if it be explained to us. The following experiment, which I devised for my students, helped them to understand as well as to remember some chemical data.

A white cat, made of flexible pasteboard and imprisoned in a glass jar, is shown to the audience. The lecturer announces that, without opening the jar or even touching it, he will cause the cat to undergo a zoological as well as a chemical transformation. He takes the support of the jar, and pushes it forward in full view of the students. The change occurs almost instantaneously. The cat takes a rich orange color on which black transversal stripes rapidly paint themselves. The cat has become a tiger.

The whole transformation is produced by emanations of hydrogen sulphide, which is generated in the jar itself without any visible apparatus. The cat has been previously coated with a solution of chloride of antimony wherever the orange hue was to be produced, and with a solution of basic acetate of lead wherever the black stripes were to appear. Both solutions are colorless. After the coated cat has been introduced in his glass cage, a small piece of pasteboard is placed under the wooden support so as slightly to incline the jar forward. A few decigrammes of pulverized sulphide of iron folded in a piece of blotting paper are deposited behind the cat, on the elevated side of the bottom of the jar. Two or three cubic centimetres of diluted sulphuric acid are dropped with a pipette on the opposite side. When the performer wishes the transformation to take place, he takes the wooden support and pushes it forward as if he wanted to enable everybody to see better what is going to happen. By so doing he suppresses the slight inclination which kept the iron sulphide beyond the reach of the sulphuric acid. The gas is evolved, and the formation of the orange sulphide of antimony and black sulphide of lead takes place in a few seconds.—*Gustave Michaud, D. Sc., in Scientific American.*

The iconoclasts who are so fiercely denouncing the teaching of complex fractions and the greatest common divisor are reminded that the young lady who studies difficult music is more likely to play with ease simple melodies, and that the student who has conquered algebra is forever after master of arithmetic.—*Western School Journal.*

**A Great Schoolmaster.**

When Doctor Temple, afterward Archbishop of Canterbury, was head master at Rugby; writes one of his students in the memoirs of the archbishop, he relied but little upon punishment. It became the custom for the under teachers to sit with the dull and lazy boys, who had failed in their lessons, to hear them over again. Doctor Temple would try every other device before resorting to punishment.

Perhaps the most valuable lessons that the younger masters learned from him was to imitate that quality which more than anything else endeared him to the school—the love of justice. It was not only that the tradition, which dated from the time of Doctor Arnold, was insisted on that a boy's word should be taken, but even when there was what to a young master seemed overwhelming proof of some wrong-doing, as, for example, documentary evidence of dishonesty, he would stay his colleague's hand if the boy implicated declared his innocence.

It was better, he would say, that many a wrong deed should slip through unpunished than that a single act of injustice should be done.

He insisted, too, on the fullest allowance for the possible stupidity which might have led to the result; no boy was to be punished because he had misunderstood.

It is small wonder that one of his boys, who had been exhorted at home not to be led astray from the true faith, wrote home:

"Dear mother. Temple's all right; but if he turns Mohammedan, all the school will turn, too."

Canada is thirty-nine years old, dating from Confederation; is 147 years old, dating from the British Conquest of 1759; is 370 years old, dating from Cartier's first visit of 1535; leads Britain's forty-eight colonies; was the first colony to form a Confederation; is included in forty-two of Britain's Extradition Treaties; has over 700 legislators; has had 113 governor-generals since 1534; cast over one million ballots in the Dominion election of 1904; gives \$4,402,502 annually to the provinces as subsidies; comprises one-twelfth of the land surface of the globe; had \$15,000,000 surplus in 1904.

Canada contains one-third of the area of the British Empire; extends over twenty degrees of latitude, an area equal to that from Rome to the North Pole; only one-fourth of Canada's area is occupied.

Canada has enough land to give each individual 400 acres.

**A Lesson in Heroism.**

The surgeons had removed the foot. It was a far more severe ordeal than Hugh had fancied, and he felt that he could not have borne it a moment longer. Though he slept a great deal in the course of the night, he woke often, such odd feelings disturbed him. Every time he moved in the least his mother came softly to look.

When she found he could not sleep any more, and that he seemed a little confused about where he was and how he came to be there, she let him talk, and thus gradually brought back the recollection of all that had happened.

"Oh, mother, I can never be a soldier or a sailor. I can never go around the world." And Hugh burst into tears, now more really afflicted than he had been yet.

His mother sat by the bedside and wiped his tears as they flowed, while he told her how long and how much he had reckoned on going around the world, and how little he cared for anything else in the future; and now this was just the very thing he should never be able to do. He had practiced marching, and now he could never march again.

There was a pause, and his mother said:—

"Hugh, do you remember Richard Grant?"

"What, the man who carved so beautifully?"

"Yes. Do you remember how he had planned a most beautiful set of carvings for a chapel? He was to be well paid, his work was so superior. But the thing he most cared for was the honor of producing a noble thing which would outlive him.

"Well, at the very beginning of his task his chisel flew up against his wrist, and the narrow cut that it made rendered his right hand useless for life. He could never hold a tool. The only strong wish that Richard Grant had in the world was disappointed."

Hugh hid his face in his handkerchief, and his mother went on:—

"You have heard of Huber?"

"The man who found out so much about bees?"

"Bees and ants. When Huber had discovered more than had ever been known before about bees and ants, and was more and more anxious to peep and pry into their tiny homes and their curious ways, he became blind."

Hugh sighed, and his mother went on:—

"Did you ever hear of Beethoven? He was one of the greatest musical composers that ever lived. His great, his sole delight was in music. It was the passion of his life. When all his time and all his mind were given to music, he became deaf, perfectly

deaf; so that he never again heard one single note from the loudest orchestra."

"But were they patient?"

"Yes, in their different ways and degrees. Would you say they were hardly treated? or would you rather suppose something better was given them than they had planned for themselves?"

"It does seem hard," said Hugh, "that that very thing should happen. Huber would not have so much minded being deaf, or that musical man being blind, or Richard Grant losing a foot; for he did not want to go around the world."

"I think they found, if they bore their trial well, that there was work for their hearts to do far nobler than the head can do through the eye, and the ear, and the hand.

"And they soon found a new and delicious pleasure which none but the bitterly disappointed can feel."

"What is that?"

"The pleasure of rousing their souls to bear pain, and of agreeing with God silently, when nobody knows what is in their hearts.

"There is a pleasure in the exercise of the body,—in making the heart beat, and the limbs glow, in a run by the seaside, or a game in the play-ground; but this is nothing to the pleasure there is in exercising one's soul to bear pain,—in finding one's heart glow with the hope one is pleasing to God."

"Shall I feel that pleasure?"

"Often and often, I have no doubt,—every time you can willingly give up anything you have set your heart upon. Well, I don't expect it of you yet. I dare say it was a long and bitter thing to Beethoven to see hundreds of people in raptures with his music when he could not hear a note of it. And Huber—"

"But did Beethoven get to smile?"

"If he did, he was happier than all the fine music in the world could ever have made him."—*Harriet Martineau.*

One of the most successful devices I have used to interest boys in the writing of business letters is to give each child an illustrated magazine, allowing him to answer any of the advertisements he wishes. This is much more interesting to the average pupil than the prescribed course on letter-writing given in most texts on language.

The rural teacher who finds it so difficult always to secure fresh material for busy work will find that she can put to almost innumerable uses, the glazed paper samples of paints and varnishes which one can secure at paint or drug stores for the asking. These come in all the bright colors that appeal to the children. They may be used for counting; for simple designs drawn on the board and the children copy on the desk with these; or simple designs may be made from them. Just give the children a handful of them and they will be quiet for some time.—*Teachers' Magazine.*

## Selected Readings

## Counting the Stars.

(From Stickney's Third Reader, by permission of Messrs. Ginn & Co., Boston, the publishers.)

Robert was offered a dollar by his grandfather if he would count the stars. The night was clear, and there was no moon. Robert thought he might as well begin at once. He had no special interest in the stars, but a dollar had great possibilities in it for him.

The boy lay on his back on the soft, cool grass, so as to see all the sky at once. He guessed there might be a hundred stars, and that there would be a cent for each star that he counted. An hour was allowed him for the work, as it was then eight o'clock. He thought it quite sufficient. Some time was spent in deciding where to begin; but as Venus was the evening star at that time, it seemed a good one to earn his first penny upon. His mother thought so, too. Mothers can usually be depended upon to encourage the efforts of their children, and he thought he would like to have his mother count also. Robert was an honest boy, and he was sure that he ought to count as carefully as his father had to count bills at the bank, not missing a single one. There was a long silent time.

Robert's mother had not believed he would be so persevering. She did not speak till she heard a sigh and knew that he had stopped counting. "Have you lost count?" she asked. "Yes," was the answer. "I'm all mixed up, I'm afraid I shall have to begin over again." "Oh!" said his mother in a sympathetic tone. "There are so many of the little ones," Robert added, "and there are no lines to go by. How did you get on?" he asked. "I worked in another way and counted till I reached a hundred; then I think I lost count also. I began, as you did, with Venus, and then looked for the other two planets, Jupiter and Mars. We do not always have three planet visitors in sight at the same time. [Mars is now visible and Jupiter is seen in the morning sky.—EDITOR.]

"Then I went all over the sky for the largest stars—stars of the first magnitude they are called. There were seven of them. That is a good many to have at once. The last time I looked for them there were only six, and in the whole year there would be only fourteen. It is not so easy to count the stars of the second magnitude, of which there are forty in all. I found about twenty, and then began back at Venus to count smaller stars."

"It will take another evening," said Robert, "to go all over the sky; I think I had better stop now."

It was a month or two before Robert made his second attempt to number the stars. His mother had pointed out to him in the meantime the stars of first magnitude—he had learned to find Vega and the bright star Sirius himself, and had had Regulus and Castor and Pollux pointed out several times.

When Arcturus came first in sight in the eastern sky (it is now in the west), he was as much interested as his mother; so, when his grandpapa said one night at tea time, "I want you to have that star dollar, Robert!" he asked to be allowed to sit up till it was dark enough for the stars to be bright.

"Will you show me how to count *your way*, mamma," he asked. "We will take a better way," was the answer. "I showed you the Great Dipper, the Seven Sisters, Orion's Belt, and the Sickle. We will look for more *groups of stars*. Then if you have to stop, you will not need to begin at the beginning again.

"Groups that make figures in the sky are called *constellations*. There are a good many. The whole sky is overspread with them. When I was a little girl, grandpa taught me to find them, and they seem like old friends that meet me wherever I go. I think you will like to get acquainted with them. David, the shepherd boy of Bethlehem, knew them, and perhaps Moses did in Horeb."

Robert soon became so interested in tracing constellations that he forgot all about counting, till his mother reminded him that they had found *six* stars in the sickle in Leo and *three* in the triangle; the great square in Andromeda had *seven*, and in Orion he had found no less than *thirteen*; in the scorpion there were *eighteen*, and it took *seven* to shape the Great Dipper, all but one of them being second magnitude stars. Next was Draco, the dragon, with *twelve*, and close by the Little Dipper with *seven*. Cassiopeia, Bootes, Hercules and Gemini, which he thought he saw when his mother traced them out for him, easily made up the hundred he thought he was to count at the beginning; and his mother hurried him off to bed before he had time to wonder if his grandfather would think he had earned his dollar.

---

Arcturus, or the Dog Star, or the seven  
That circle without setting round the pole.  
It is for nothing at the midnight hour  
That solemn silence sways the hemisphere,  
And yet must listen long before ye hear  
The cry of beasts, or fall of distant stream,  
Or breeze among the tree tops, while the stars  
Like guardian spirits watch the slumbering earth?

**Beauty of Nature.**

Is it for nothing that the mighty sun  
Rises each morning from the Eastern plain  
Over the meadows fresh with hoary dew?  
Is it for nothing that the shadowy trees  
On yonder hilltop, in the summer night  
Stand darkly out before the golden moon?  
Is it for nothing that the autumn boughs  
Hang thick with mello fruit?  
Is it for nothing that some artist hand  
Hath wrought together things so beautiful?

Beautiful is the last gleam of the sun  
Haunted through twining branches; beautiful  
The birth of the faint stars, first clear and pale  
The steady lustered Hesper, like a gem  
On the flushed bosom of the West; and then  
Some princely fountain of unborrowed light.

**Dawn.**

I had occasion, a few weeks since, to take the early train from Providence to Boston, and for this purpose rose at two o'clock in the morning. It was a mild, serene midsummer's night; the sky was without a cloud; the winds were whist.

The moon, then in the last quarter, had just risen, and the stars shone with a spectral lustre, but little affected by her presence. Jupiter, two hours high, was the herald of the day; the Pleiades, just above the horizon, shed their "sweet influences" in the east; Lyra sparkled near the zenith; Andromeda veiled her newly discovered glories from the naked eye in the south; the steady Pointers, far beneath the pole, looked meekly up from the depths of the north to their sovereign.

As we proceeded, the timid approach of twilight became more perceptible; the intense blue of the sky began to soften; the smaller stars, like little children, went first to rest; the sister beams of the Pleiades soon melted together; but the bright constellations of the west and north remained unchanged. Suddenly the wondrous transfiguration went on. Hands of angels, hidden from mortal eyes, shifted the scenery of the heavens; the glories of the night dissolved into the glories of the dawn. The blue sky now turned more softly gray; the great watch stars shut up their holy eyes; the east began to kindle. Faint streaks of purple soon blushed along the sky; the whole celestial concave was filled with the inflowing tides of the morning light, which came pouring down from above in one great ocean of radiance, till at length the everlasting gates of the morning were thrown wide open,

and the lord of day, arrayed in glories too severe for the eyes of man, began his course.

I do not wonder at the superstition of the ancient Magians, who in the morning of the world went up to the hilltops of Central Asia, and, ignorant of the true God, adored the most glorious work of His hand.—*Edward Everett (Adapted).*

**Instinct in Insects.**

Let us note for a moment a butterfly's egg-laying business, the most important of its life. To ensure the continuance of the species the ova must be placed where the young caterpillars will at once find proper nourishment on hatching out. The average lifetime of a butterfly varies from two to four weeks (non-hibernating species). During the latter end of this period the eggs have to be placed on the plant or tree peculiar to the species. Now this plant (as a rule) has no attractions whatever for the perfect insect in its winged outfit until the ova are ready for deposition; but, once the time has come, the mother butterfly never fails to find out the right plant, on which she deposits her eggs just when the young leaves are beginning to sprout. The performance is even more remarkable when, as is sometimes the case, there is only one species of plant suitable. Here, then, we have an instance of pure instinct; for seeing that the larvæ are sightless, they can form no observations of locality, nor even of the appearance of the food plant.—*C. Bingham Newland, in Littell's Living Age of August 15.*

**The King.**

The folk who lived in Shakespeare's day  
And saw that gentle figure pass  
By London Bridge, his frequent way—  
They little knew what a man he was.

The pointed beard, the courteous mien,  
The equal port to high or low,  
All this they saw, or might have seen—  
But not the light behind the brow!

The doublet's modest gray or brown,  
The slender sword-hilt's plain device,  
What sign had these for prince or clown?  
Few turned, or none, to scan him twice.

Yet 'twas the king of Englands' kings!  
The rest with all their pomps and trains  
Are moldered, half-remembered things—  
'Tis he alone that lives and reigns!

—*T. B. Aldrich.*

**Somebody's Mother.**

The woman was old, and ragged, and gray,  
And bent with the chill of the winter's day;  
The street was wet with a recent snow,  
And the woman's feet were aged and slow.

She stood at the crossing, and waited long,  
Alone, uncared for, amid the throng  
Of human beings who passed her by,  
Nor heeded the glance of her anxious eye.

Down in the street, with laughter and shout  
Glad in the freedom of "school let out,"  
Came the boys, like a flock of sheep,  
Hailing the snow piled white and deep.  
Passed the woman so old and gray  
Hastened the children on their way,

Nor offered a helping hand to her,  
So meek, so timid, afraid to stir  
Lest the carriage wheels, or the horses' feet,  
Should crowd her down in the slippery street.

At last came one of the merry troop—  
The gayest laddie of all the group;  
He paused beside her and whispered low,  
"I'll help you across if you wish to go."

Her aged hand on his strong, young arm  
She placed, and so, without hurt or harm,  
He guided the trembling feet along,  
Proud that his own were firm and strong.

Then back to his gay young friends he went,  
His young heart happy and well content.  
"She's somebody's mother, boys, you know,  
For all she's aged, and poor, and slow.

"And I hope some fellow will lend a hand  
To help my mother, you understand,  
If ever she's poor, and old, and gray,  
When her own dear boy is far away."

And "somebody's mother" bowed low her head  
In her home that night, and the prayer she said  
Was: "God be kind to the noble boy,  
Who is somebody's son, and pride, and joy."

—From *Harper's Weekly*.

**There's Work to be Done.**

'Tis the song of the morning,  
The words of the sun,  
As he swings o'er the mountains:  
"There's work to be done.

"I must waken the sleepers,  
And banish the night;  
I must paint up the heavens,  
Tuck the stars out of sight.

"Dry the dew on the meadows,  
Put warmth in the air,  
Chase the fog from the lowlands,  
Stay gloom everywhere.

"No pausing, no resting,  
There's work to be done.  
It is upward and onward,  
Still on," says the sun.

—*Ella Wheeler Wilcox*.

**Gleanings from New Books.****First Steps in Arithmetic.**

Counting should begin with quite small numbers, and should not proceed beyond a dozen for some time, but there is no object in stopping or making any break at ten. Several important facts (the facts only, not their symbolic expression) can now be realized: such as that  $3+4=7$ , that  $7-4=3$ , that two threes are 6, and that three twos are the same, without any formal teaching beyond a judicious question or two .... Formal teaching at this stage should be eschewed, since it necessarily consists largely in coercing the children to arrive at some fixed notion which the teacher has preconceived in his mind—a matter usually of small importance. The children should form their own notions, and be led to make small discoveries and inventions, if they can, from the first. Mathematics is one of the finest materials for cheap and easy experimenting that exists. It is partly ignorance, and partly stupidity, and partly false tradition which has beclouded this fact, so that even influential persons occasionally speak of mathematics as "that study which knows nothing of observation, nothing of induction, nothing of experiment." A ghastly but prevalent error which has ruined more teaching than perhaps any other misconception of the kind.

From "Easy Mathematics" by Sir Oliver Lodge, F. R. S. (*The Macmillan Company of Canada, Toronto*).

**Two Methods of Training.**

I have had opportunity to observe for a number of years the development of two families where different methods of training the young are followed. The five children in the first family have been continually repressed; they have been taught to sit still, and not to speak until they have been spoken to. They are compelled to be quiet in the house, and they are forbidden to play on the street. Their parents never think of indulging in a game with them. They are provided with no materials at home or at school by which they can indulge the constructive instinct. The parents are guided solely by the static ideal of good behavior.

In the other home the training is quite different. Spontaneity is indulged. The father and mother and governess themselves help to carry forward the enterprises of the young ones. Various devices are invented to counteract the unfavorable conditions of the city, so that the children may dig in the sand and climb and build and reproduce in various ways the activities that go on about them.

The effect of these different modes of training is apparent in the conduct of the children. In the first family the children "behave themselves" better than in the second.

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### On the Advantages of Talking.

They "keep still" and "let things alone." Whenever they are thrown in with other children, though, they appear ill at ease, and often spend their time merely looking at others who are doing things. They seem quite reserved, timid, resourceless. Their faces show lack of originality, independence, freedom. But some of the neighbors say they are "well trained," "well disciplined" because they are not getting into mischief constantly.

The children in the second family, however, are active in any situation in which they may be placed. They conduct themselves as though the world existed to furnish them occasion for activity. They are never at a loss for something to do. The neighbors speak of them, though, as noisy and ungoverned, because they will not sit still and gaze at the world. Their parents find consolation in the belief that as they increase in experience they will have less desire to be testing everything. They expect them to grow more thoughtful and so more restrained. Already, indeed, the eldest child of nine spends of her own accord several hours every day over her story books and drawing and writing and various manual activities.

—From "Dynamic Factors in Education," by M. V. O'Shea. (Macmillan Company, New York).

"I am a bit bothered in my mind on the question of talking," announces the precocious young lady whose career is recited in Barry Pain's delightfully humorous "Diary of a Baby," beginning in the September *Deineator*. "Shall I talk or shall I not? I suppose it has got to be one way or the other. In the place from which I came, the Herebefore, there was no talking. I remember that distinctly, though the rest of my recollections of the Herebefore are getting vague. In my younger days, when I was a fortnight old, I could have told you everything about the Herebefore, but most of it has slipped from my mind now. I suppose one's memory fails with advancing age. Still I remember distinctly that in the Herebefore we never talked. Why should we have talked? We understood one another perfectly without making noises. Even now, I could hold a long discussion with a babe of my own age or younger without making sounds. The trouble is with the grown-up people they seem to have lost the knack of it. They can't say things without talking. I shall have to talk. If you do not express what you think, grown-up people suppose that you can think of nothing to express. The experiment would be easier if the grown up people would only talk to



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me as they talk to one another. As a rule they use a special language for me. Papa is an exception. He always calls me Rosalys, and speaks to me as if I were a lady of his own age. Mama never calls me Rosalys and seems to prefer some elaboration or distortion of the word duck. She has called me a duckletina, which sounds something like a new disease. I know that Mama ought not to talk in this way. It is not right, and I should certainly correct her."

In 1867, Thomas D'Arcy McGee contested Montreal as a candidate for its representation in the House of Commons. He was bitterly opposed by the Fenian element among his own countrymen. Apparently his death was then decided upon, and a few months afterwards he was murdered. The assassin was discovered, arrested and condemned to death. A Fenian rescue was expected, and two hundred Ottawa citizens took the precaution to attend the hanging to see that justice was not interfered with. The details of the story are entertainingly told in the August *Canadian Magazine* by J. E. B. McCready, the veteran journalist, who was in Ottawa at the time.

### CURRENT EVENTS.

A lake of quicksilver, covering two or three acres of land, is said to have been discovered in Mexico.

Most wonderful accounts of the richness of the ore continue to come from the Cobalt mining regions.

The manufacture of alcohol for fuel is likely to become an important business. It is already carried on to some extent in Europe, where potatoes are the chief source of supply.

The Russian cabinet has decided that the number of primary schools in Russia should be increased, and the salaries of teachers advanced. A bill for universal primary education will be laid before parliament at its next session.

The elections for the new parliament are now taking place in Russia, and it is reported that the results are such as to amply justify the government's appeal to the people.

Over two thousand physicians were in attendance at the recent meeting of the British Medical Association in Toronto. Some amusement was felt on receiving from England, on one of the very hottest days of summer, a case marked with the request that its contents should be protected from freezing.

There is fresh trouble in the Balkans. It arises from disputes between Greek Christians about the control of Greek churches and schools in Macedonia. The ecclesiastical authorities in Greece claim jurisdiction; but Roumanian and Bulgarian Christians

# The Provincial Educational Association of Nova Scotia

WILL MEET AT THE

HALIFAX ACADEMY, HALIFAX,  
September 25th, 26th, 27th.

There will be three morning sessions and one or two evening sessions. Much time will be devoted to

## Discussion on the Adjustments of the Course of Study Demanded by Modern Conditions

THE HIGH SCHOOL COURSE will receive special attention in discussing the Report of the Committee on High Schools and Colleges.

There will be no afternoon sessions, so that members may be free to study the Natural History and Industrial Products of the Dominion at the Dominion Exhibition, which will be open at that time.

A. MCKAY, SECRETARY.

who belong to the Greek church resist the claim, so far as it affects residents who are of Roumanian or Bulgarian nationality. Roumania is too far away for active interference; but bands of armed Greeks and Bulgarians are supporting claims of their respective partisans, while the Turkish government seems quite willing to let them fight it out among themselves, and declines to interfere.

A new metal, tantalite, is said to be so hard that a diamond drill makes no impression on it.

Farm laborers from the United States are flocking into Western Canada. They are all needed to harvest the abundant crops.

Wellman, the Chicago explorer who had planned to start for the North Pole in a dirigible balloon, has abandoned his purpose for the present.

Now that Jews are again permitted to settle in Palestine, a large influx from Russia and the Balkan States has begun. The immigrants are taking up land chiefly on the east of the Jordan, and finding it rich and productive.

A new constitution for the Transvaal gives equal rights to Boers and Britons. Either the English or Dutch language may be used in the transaction of public business.

An earthquake as great as that of San Francisco, and with hardly less appalling results, has visited the Pacific coast of South America. Half the city of Valparaiso, is in ruins, and many smaller towns have suffered severely. Valparaiso, with a population of 160,000, was the chief seaport on the coast, and the terminus of important lines of steamers. The Chilean government took immediate steps for the relief of the inhabitants, placing Valparaiso under military rule, and authorizing the provincial governors to expend all the public money needed for relief work in their several districts. The cold of midwinter adds to the sufferings of the homeless people.

Will the name of Acadia be restored to our maps? The Maritime Board of Trade has again passed a resolution in favor of the union of the provinces that once bore that name.

A number of mines in the Kootenay region of British Columbia which were abandoned as unprofitable, will resume operations this year, owing to the increased price of metals and the decreasing cost of mining and smelting.

It is now proposed to connect Newfoundland with Canada by a railway tunnel under the Strait of Belleisle.

Persia is to have a national assembly, for the first time in its history. It will meet at Teheran, and will have control of all civil laws, which will become effective on receiving the signature of the Shah.

A method of tempering gold has recently been discovered, and this metal will probably be used for surgical instruments, because of its being non-corrosive.

It may be possible to predict earthquakes as surely as we can now foretell storms. The recent South American earthquake had been foretold by scientists some days before it occurred.

The Dowager Empress of China has called a convention to formulate plans for a constitutional government.

Newspapers in the United States, as well as elsewhere, are suggesting the possibility that the insurrection in Cuba may be made the occasion of intervention and the ultimate annexation of the island by the United States. To this neither party in Cuba would willingly submit; for the unfortunate inhabitants of Porto Rico have found that they are worse off under the government of the United States, of which that island is now a part, than they were when it formed a part of the Kingdom of Spain.

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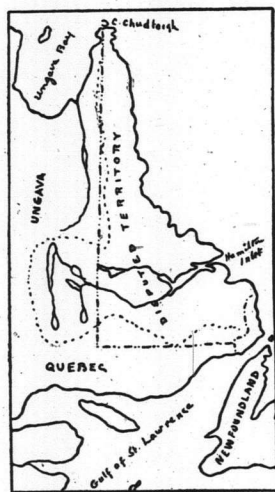
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Principals.

The boundary dispute between Canada and Newfoundland is of more importance than might be supposed. The Quebec government claims that the Labrador littoral under the jurisdiction of Newfoundland is a narrow strip of coast extending about one hundred and fifty miles north from the southern end of the Strait of Belleisle. The extreme claims of the island colony are understood to be that all the country east of the Labrador watershed, or all the land drained by rivers that flow into the Atlantic, comes under its jurisdiction; or, if any definite boundary is to be recognized, the



Height of Land . . . . .  
Boundary Claimed by Quebec . . . . .  
Boundary Claimed by Newfoundland . . . . .

portion of the peninsula of Labrador annexed to Newfoundland is bounded by a line running due south from Cape Chudleigh to the fifty-second degree of north latitude, thence easterly along the fifty-second parallel to the longitude of Blanc Sablon, thence southerly to the shore of the strait. The valuable timber land along the Hamilton River and its branches is the most important part of the territory in dispute; but it may be a matter of much consequence in the future whether the Ungava territory is to have Atlantic harbors, or is to be closed

in along the whole Atlantic coast of Labrador, as the Yukon is cut off from access to the Pacific by the narrow strip of Alaskan territory:

One of the largest irrigation schemes on the American continent is that of the Canadian Pacific Railway Company for the extensive area between the Red Deer River and the Bow River east of Calgary. Canals are already completed to furnish water for irrigating over a hundred thousand acres.

The electric smelting or iron ore having proved successful in Canada, the plan will be adopted elsewhere. Electrical smelting works are to be established in the United States and Mexico without delay.

The Colorado River was to be in part diverted from its course, a few miles north of the Mexican line, to irrigate lands lying in the bed of the old lake; but the engineers failed to take proper precautions, and the entire volume of the river is now rushing through the artificial channel. It has washed away a small Mexican town, and is endangering miles of the Southern Pacific Railway. Unless control is regained, which seems improbable, it will ultimately fill up the depression estimated to be some two thousand square miles in area; and when that is done, perhaps thirty or forty years hence, will find a new outlet to the sea.

Gold, silver, copper, nickel and iron ores of wonderful richness have been discovered in the Lake St. John region of the Province of Quebec. A railway will be needed to make the mines easily accessible.

A small insurrection has broken out in Cuba, and a more serious one in Santo Domingo, where the United States has stationed six war ships to prevent the success of the revolutionists.

The Canadian steamer "Arctic" has sailed for the Polar regions, and is expected to return in a year and a half. Captain Bernier, who is in command, will plant the Canadian flag on all islands and mainland points which he may discover, claiming them as parts of the Dominion of Canada.

It is denied, apparently on good authority, that the ship "Birkenhead," which was built at St. Andrews, N. B., in 1841, was the troopship of that

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name that was lost on the coast of Africa. The REVIEW's authority for the statement thus contradicted was local tradition, confirmed by an assertion of the son of the master workman that the ship his father built was taken to England and sold as a troopship. Further inquiry may show that there were two ships of that name.

**SCHOOL AND COLLEGE.**

Miss Kate R. Bartlett for several years an efficient teacher in the St. John High School, has been appointed teacher of domestic science in the Halifax Ladies' College, after a full course at the Macdonald Institute, at Guelph, Ontario.

Mr. Roy D. Fullerton, B. A., of Port Elgin, N. B., has accepted the principalship of the Grand Forks, B. C., school.

Mr. W. H. Coleman, B. A., of Moncton, has been appointed to the position on the staff of Mount Allison Academy formerly held by Mr. W. A. Dakin, M. A.; and Mr. F. H. W. Holmes, graduate of the Ontario Business College, has been appointed head master of Mount Allison Commercial College. Another vacancy on the Academy staff has been filled by the appointment of Mr. Goldwin S. Lord, late principal of the school at Grand Harbor, Grand Manan.

Mr. L. H. Baldwin has been appointed principal of the St. George schools.

The school trustees of Hampton have received authority to borrow \$15,000 to build a consolidated school.

Mr. N. W. Brown has been appointed inspector of schools for York and Sunbury, to fill the vacancy created by the appointment of Inspector Bridges to the principalship of the Normal School.

Dr. H. T. Bovey, Dean of the Faculty of Applied Science at McGill University, has been elected an honorary fellow of Queen's College, Cambridge.

Miss McAdam, who has returned from a visit to Europe, will resume her duties as head of the primary department of the Charlotte Street School, Fredericton. Miss A. L. Taylor, of the same school, has asked for leave of absence.

Miss Pickle will have charge of the manual training department in the new consolidated school at Florenceville. The manual training department at Hillsboro will be in charge of Miss Keith, of Havelock; and that at Chipman in charge of Miss Currier, of Upper Gagetown.

Miss Mary E. Caswell has resigned her place on the staff of the St. Stephen school, for a needed rest, and will be succeeded by Miss Shaughnessy, lately teaching at Oak Bay. Miss Jessie Henry is to resume her place on the staff, after a year's leave of absence.

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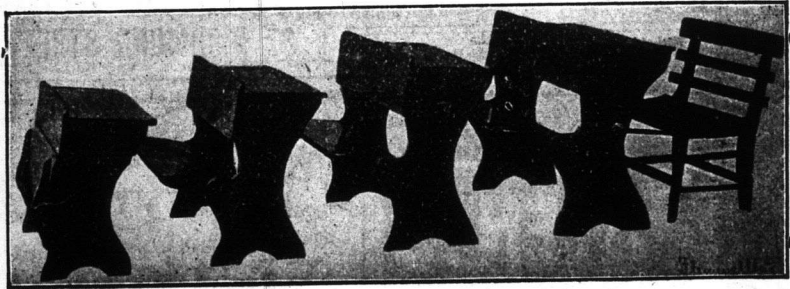
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