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The Canada School Journal.

AND WEEKLY REVIEW.

Vol. X.

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The Canada School Journal and Weekly Review.

An Educational Journal devoted to the advancement of Literature, Science, and the teaching profession in Canada.

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The World.

It is now said that the Mormons of Salt Lake have completed their plans for a large emigration to a new settlement in Mexico. Thus civilization spews polygamy out of its mouth, and its apologists and promoters take refuge in a semi-civilized state.

The speech of Mr. Chamberlain, the physical break-down of Lord Randolph Churchill, and Mr. Gladstone's long-expected manifesto are the great recent events in British public life. Mr. Chamberlain is, as usual, outspoken, brave and radical; Mr. Gladstone moderately progressive and eloquent. Restrained radicalism bids fair to win under the leadership of the latter, who, unlike most politicians, is likely to do more than he says.

The American Bar Association, lately assembled at Saratoga, devoted some time to consideration of the law's delays, and means of preventing them. Would not one good means be to reduce the scope of its operations by curtailing largely the number of cases in which the law may be invoked? In other words, might not society be the gainer if men were obliged to

deal more cautiously and to trust more to mutual honor in their dealings, and less to the legal machinery for compelling the fulfilment of obligations?

It is announced that the Afghan question is at last settled, Russia having renounced her claim to the Zulfiar Pass. Notwithstanding this apparent concession it seems pretty generally conceded that the long diplomatic dispute ends with Russia in a much more advanced position than when it commenced. Should observers even assert that the great Northern Power has really got all she wanted, that the pass in question is of little strategic importance and that Russia with the diplomatic *finesse* for which her statesmen are so famous, merely raised that difficulty in order to veil her sinister designs elsewhere. In all probability the next dispute will not be long in coming.

History keeps repeating itself. It is not so very many years since stringent legislation was found necessary in England to protect young children from being barbarously worked in English and Welsh mines. The same practice is now found to prevail to a fearful extent in American mines. A law recently passed by the Pennsylvania Legislature forbidding the employment of boys under fourteen in mines and under twelve in coal breakers is found to affect thousands of children in the coal districts, and parents are protesting against its enforcement on the ground that widows will lose their bread-winners, new school-houses and increasing taxes result to the laborers, and that the child labor forbidden will be done by Hungarians, &c. These, in too many cases, override all higher considerations, and even parental affection.

There is one important question of Canadian policy on which we are surprised and sorry to see both political parties, and even the Young Liberals, strangely silent. That question is, what is to be done for and with the North-west Indians. We want and must have a better Indian policy if the country is to be spared periodical Indian wars. We need it still more in the interests of justice and humanity. The question cannot be discussed at length in an Educational paper, but to us it seems clear that the true answer is to be found only in two phrases— industrial education for the young Indians, and separate homesteads for all. We quote a sentence or two from the Portland "Oregonian," of the United States for the benefit of those who regard such schemes as utopian. The reference is to what Gen. Miles has done with Chief Moses and his tribe, by the method of settling them as individuals. "In two years a tribe of wild and troublesome Indians has been peaceably induced to give up savagery, to practically give up its tribal relations, and to take to civilized ways." Gen. Miles, who ought to be good authority on such a question, is further quoted as saying, "If this policy," of separate holding, &c., "was adopted, any tribe in the United States could be made independent of Government support in five years.

The Young Liberals have met and adjourned without committing themselves to anything very revolutionary after all. Some of their resolutions are, however, significant and far-reaching. In particular those claiming for Canada the right to make her own Commercial treaties and to remodel her own Constitution, without reference to the Mother land, fall little if at all, short of a veiled demand for independence, though perhaps not so intended. Two things suggested by the Convention seem especially worthy of note, as signs of the times. The one is the coming to the front of the Canadian born youths as a growing force which must hereafter be taken into the account, and which will at an early day become a dominant factor in Canadian politics; the other is the perfect freedom and boldness with which even such "rebel" doctrines as independence or annexation may be discussed. On both these facts the country may be congratulated whatever the outcome may be.

The School.

In response to numerous requests we have made inquiries as to the probable date at which the Tablets for the new Ontario Readers will be ready. We are informed that they will be ready in about ten days.

The new "Regulations" prescribe that Friday afternoon in the Public Schools shall be devoted to "exercises tending to relieve the usual routine of the school-room, while promoting the mental and moral culture of the pupils." We congratulate teachers on the permission thus given to escape for a little time once a week from the grip of the machine and to follow the promptings of their own individuality. To the true teacher this will be a golden opportunity. To the pupils of such a teacher it will be the most profitable as well as to the most delightful hour of the week. In order to improve it properly the teacher will find special preparation necessary. Readings and recitations should be carefully chosen with a view to their effect upon mind, taste and character. After a week or two, when our columns are somewhat relieved from the pressure of special matter, we shall aim to give each week a Friday Afternoon Department, containing suitable extracts for recitation, and interesting and instructive things to tell the pupils, &c. What opportunity for character building, is given to the man or woman of culture, and of intellectual and moral power, in the exclusive attention of a score or two of children for two hours every week. Impressions deep as the child nature and lasting as its life should be made.

Edward Everett Hale has been giving advice to brain-workers. It is no doubt good and may work well in another state of being where the days are laid out on a larger scale. Here it seems slightly impracticable. For instance, "Avoid all intricate study of any kind for six hours before going to bed." Why did he not add "and for the same number of hours after getting up, and before and after each meal"? To those who have to earn their bread by brain work his system might have one advantage. One would not have to follow it long in this hard,

matter of fact world in order to make sure of his translation on an empty stomach to the next sphere, where he might, perhaps, give it a fairer trial, in the absence of bread-and-butter conditions.

We read somewhere the other day, a remark made in reference to a certain distinguished teacher by one of his pupils, to the effect that he was the only teacher who ever "tried to make a man of him." The remark contains a very valuable suggestion. Every earnest teacher is trying to make something out of his pupils. Some are trying to make students, some scholars, many, we fear, are trying to make parrots, secure of good "passes," or of honors and prizes at some future examination. How many are really trying first of all, and above all, to make men and women of their pupils? The country needs students and scholars and clever professional men and tradesmen. But it needs far more upright, noble, high-souled men and women—men and women who dare to speak the truth and do the right under all circumstances. We can never have too many of these. Teachers have more to do than any others except parents with making such. And then, these men and women are the very ones who are most likely to make good students, scholars, merchants and manufacturers.

We have occasional inquiries about the promised history primer. We had hoped the Minister of Education was growing wiser by experience and had abandoned the idea of having history, like drawing and some other subjects, cut and made up to measure. Recent intelligence, however, makes us fear that the unphilosophical project was only postponed, not abandoned. We hear that two of these books are, so to speak, on the stocks, and that the skeletons, one for the Public and another for the High Schools, will shortly be launched. We say "skeletons" advisedly, for it is impossible, changing the figure, that such productions can be clothed with any decent covering of flesh and blood, and not all the autocratic power of the Education Department could breathe a breath of life into them. Surely civilization advances slowly if the days of history primers are not numbered. But we forget. The history primer is quite in keeping with departmental text-book making. They are rightly synchronous, but both a little out of date. Their true place is much nearer the middle ages.

Chicago *Intelligence* says:

"The children should be taught and trained to be prompt, to be truthful, to be honorable in their conduct in school and on the play ground, to be just in the expression of an opinion of a topic or person."

All good and necessary, but we quote mainly to call attention to the last clause. How few children or adults know how to be just in forming or expressing an opinion on a subject or a person. Is it too much to say "at nine-tenths of all our expressed opinions are the offspring of either educational or personal prejudice. A large percentage of our most cherished opinions are heirlooms handed down to us, haphazard guesses, or prejudice-begotten sentiments. What a revolution would be wrought in both creeds and customs of the next generation if all the children could be taught to weigh facts dispassion-

ately, and to form conclusions candidly and carefully. The living teacher can do more than any one else, except perhaps parents, in teaching the young to observe more carefully, reason more coolly and closely and judge more impartially.

THE KINDERGARTEN.

In her address to the Teachers-in-Training at the Normal School, at the opening of the current session, Miss Hailman, the newly appointed Principal of the Kindergarten Department said—

"The Kindergarten is no more a system of education than is the school. Who would ever think of asking whether the school is, or is not, a good "system of education?"

The remark is sensible and suggestive. It is capable of a wider application than that given to it by Miss Hailman. If the truth it contains were kept in mind by many of the gushing writers on the "new education," we might be spared a good many floods of nonsense.

Regarded as new and to some extent improved methods of inciting the child-mind to healthful effort, and directing its activities into right channels, there is much in the kindergarten methods to recommend them to every teacher of children. Thus regarded, the system, as, for want of a better word, we must call it, is but a development of modes of working which must have been used to a greater or less extent by all successful educators from time immemorial. We have no wish to detract an iota from the great merit of Froebel in formulating and defining educational principles, but the true teacher went to nature for instruction long before Froebel was born.

But while it is true on the one hand that the teacher must be a dullard indeed and wholly beneath his profession, who does not know how, upon occasion, to call in the aid of material appliances and reach the intellect through the channels of perception, it is equally true, on the other, that this is the beginning but not the end of systematic training. It is at best but a temporary means to certain ends, and must be gradually discarded as those ends are reached. To use the terminology of the books the percept must be gradually superseded by the concept as affording the mind its food. The higher powers of the mind cannot be said to be properly educated until they are able to form and use their own products, rather than those furnished by the perceptive faculties as the material of thought. The leaders and masters of the so-called new education are not likely to forget this; though their new converts sometimes may.

A UNIVERSAL LANGUAGE.

The "Parliament of man, the Federation of the world," if it ever becomes more than a poet's "vision of the future," must needs be preceded by a universal language. According to recent speculations, or rather calculations, of M. Candolle, a Swiss scientist of high repute, the universal language is approaching more swiftly than most persons imagine. M. Candolle's figures are at least free from patriotic bias since he, while French is his native language, and at present the dominant language of both

literature and diplomacy in Europe, predicts the triumph of English. "A common language," says he, "a representative speech, not only for science and literature, as heretofore, but now also for society, diplomacy, court life, and, still more, for travel and commercial intercourse, is not only desirable, but unavoidable. It necessarily comes of itself, and English is evidently thus coming into play as superseding the French, and not only pervading Europe, but compassing the world—a sort of international, not to say uniting, language in not a few of the most important relations and interests of modern civilization." Passing beyond the general, but somewhat vague, proof to be found in Anglican colonization, British domination, and British and American commerce and travel, M. Candolle brings the question down to a strictly scientific basis by facts and figures. We have not space for the argument, but the following outline will suggest its course. Going back to make sure of accuracy to 1870, he finds the numerical prevalence of the only three tongues that can enter the contest, English, French, and German, to be, in round numbers, 77, 62, and 40½ millions respectively. Estimating carefully, according to the past increase of the populations speaking these languages, he finds that in 100 years from that date, 1970, the figures will stand as follows:—English, 860,000,000; German, 124,000,000, and French, 69,000,000. Thus, while French-speaking people shall have increased about 70 per cent., and German-speaking peoples barely doubled, English-speaking peoples will have multiplied more than eleven times. But when for every person who speaks German there are seven who speak English, and for every one who speaks French there are twelve or thirteen who speak English, the end cannot be far off. But is it absolutely safe to assume that the rates of increase in each nation in the future will correspond with those of the past? That seems the only open question.

THE FREE STATE OF THE CONGO.

The first action towards the formation of this State, which is now an accomplished fact, was taken in 1876 at the meeting of the Geographical Conference at Brussels. The "International Association" was then and there formed "to facilitate future explorations, to diminish the attendant dangers, and to utilize the commercial advantages which the rich virgin soil of the vast regions of the continent offers to European and American traders and colonists."

In the following year a Belgian expedition established a line of stations from the eastern coast opposite Zanzibar to Lake Tanganyika—a distance of 500 miles—and a permanent settlement was founded on the lake. The result is, that the journey, which it took Cameron eleven months to accomplish, is now made in one month and a half with perfect safety.

Another association, known as the Congo Committee, formed in Brussels in 1878, has established a line of stations along the river from the western coast to Stanley Falls, a distance of over 1,400 miles. "The Free State of the Congo," thus rendered accessible, has an area of 1,065,000 square miles and a population of 42,608,000. This territory was acquired by treaty with some 450 independent chiefs, who made over

their rights to the International Association, which is composed of the two committees before mentioned. The Association obtained international recognition at the Berlin Conference, which met last November, and which was attended by representatives of Germany, Austria, Belgium, Spain, the United States, France, Great Britain, Italy, Holland, Portugal, Russia, Sweden, and Turkey.

An interesting article in the *Toronto Mail* of the 9th inst., to which we are indebted for the above figures, concludes as follows:—

"It is impossible to estimate the commercial advantages which will arise from the founding of this new State. In a discourse delivered by Chief Justice Daly, President of the American Geographical Society, before the New York Chamber of Commerce, the speaker said:—'Being called upon to express my views about the importance of the future commercial relations of this country with Central Africa, and the necessity of adopting such a national policy now as the nature of our future interest may demand, I feel very much like one arising in a body of merchants in London, say about the year 1621, to impress upon them the importance of a settlement that had just then been made on the coast of North America at a place called Plymouth, who, had he suggested the possibility that that infant settlement, in connection with those previously made on the Island of Manhattan and at Jamestown, might in less than 250 years increase to a great nation of fifty millions of people, he would probably have been regarded as a fit subject for an institution which a few years before had been established in London called Bedlam.' The Upper Congo section of the Congo Basin comprises from 5,500 to 6,000 miles of uninterrupted navigation, its waters flowing through an unsurpassedly fertile region of over 1,000,000 square miles, peopled by about 43,000,000 persons, of whom at least 1,000,000 have proved themselves amenable to reason and kind treatment. It has been estimated that, if steamers and ships can be sent to the Upper Congo, they can obtain three times more of the West African trade than is obtained from the whole West African coast, from the Gambia to St. Paul de Loando, a coast line of 2,900 miles. The value in Liverpool of this produce is put at £50,000,000, consisting of palm oil, palm kernels, ground nuts, india rubber, ivory, precious woods, cotton and cotton seed, red gum, copal, beeswax, rattan cane and many more articles of commerce.

The one thing wanting is a railway to connect the portions of the river interrupted by cataracts, namely, from Vivi to Isangila, 52 miles, and from Manyanga to Stanley Pool, 95 miles. With this want supplied, an uninterrupted highway will be opened into the heart of Central Africa, and it may not be many years before 'The Free State of the Congo' will rank as a civilized country."

Special.

ELEMENTARY CHEMISTRY.

CHAPTER II.—(Continued.)

SECTION II.

OZONE.

Symbol, O_3 . Molecular Weight 48.

PREPARATION.

63. Formed in Cases of Slow Oxidation or Combustion.

Exp. 13.—Carefully scrape a stick of phosphorus until quite clean, under water, place it in a wide mouthed bottle, pour in

enough water to half cover it, and place a glass plate upon the mouth of the bottle; white flames of phosphorus trioxide, P_2O_3 , will arise from the phosphorus, but will soon be absorbed by the water, at the same time Ozone will be formed. The phosphorus combines gradually with part of the oxygen of the air in the bottle, while some of the remainder is converted into ozone, $3O_2$ becoming $2O_3$. Put a piece of starch about the size of a large shot into a test-tube, and quarter fill with water, shake up and then boil; add a fragment of about the same size of potassium iodide, KI, and allow it to dissolve. Dip some pieces of white paper in the solution, and, after the phosphorus has been in the jar for twenty minutes or half an hour, introduce the paper; it will immediately become blue. This is the ordinary test for the presence of Ozone.

Ozone can also be formed by the passage of a series of electric sparks through air or pure oxygen; and it may be recognized by its odor whenever an electric machine is worked. The quantity of oxygen thus changed is small, but if a *silent electric discharge* be passed through the gas, care being taken to avoid sparks, a much larger proportion of oxygen undergoes this transformation.

PROPERTIES OF OZONE.

64. Heavier than Air.

Exp. 14.—Lay a piece of test paper in the bottom of a tumbler and gradually invert a bottle of Ozone, prepared as in Exp. 13, over it, the test-paper will immediately become blue.

65. Oxidizing Power.

Exp. 15.—Suspend a bright silver coin in a bottle of ozone; in a few minutes it will be covered with a grey deposit of silver oxide.

66. Bleaching Power.

Exp. 16.—Into a jar of air ozonized by phosphorus pour a little dilute solution of indigo; it is at once decolorized. Moistened litmus-paper is immediately bleached when introduced into a bottle of ozonized air.

The bleaching and disinfecting of bodies by ozone are owing to their oxidation. Strips of test-paper exposed to the air, and shaded from the sun, for a few hours will frequently be found to have turned blue, especially in country places.

When substances are oxidized by ozone no diminution of the volume of the gas takes place. The density of ozone is found to be $24(H=1)$, that of oxygen being 16, so that ozone is half as heavy again as oxygen; therefore the molecule of ozone must contain three atoms. At a temperature of about $260^\circ C.$ it is reconverted into ordinary oxygen, the gas returning to its original volume; thus:— $2O = 3O$.

CHAPTER III.

HYDROGEN.

Symbol, H. Atomic Weight, 1. Molecular Weight, H_2 .

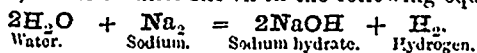
PREPARATION.

67. By Decomposing Water by the Galvanic Current.

We have already seen (Chapter I) that hydrogen may be obtained from water by sending a galvanic current through it, when it is resolved into its constituent gases. This method, however, is by far too costly to be employed on a large scale.

68. By the Decomposition of Water by Sodium or Potassium.

Exp. 1.—Boil some water ten or fifteen minutes, that all the air may be expelled from it; let it cool, and fill a saucer and a large and strong test-tube with it; close the mouth of the test-tube with the thumb and insert it under the water in the saucer. Should the mouth of the test-tube be too wide to be closed by the thumb, place a small watch glass, or a piece of thick blotting paper under it and rapidly insert it in the saucer. Support the test-tube with its mouth just under the water by means of a copper wire twisted tightly round a cork fitted on to a retort stand. Now place on the end of a wire a piece of sodium, not larger than a small pea, and thrust it rapidly under the mouth of the tube. The metal frees itself from the wire, and as it is lighter than water, ascends into the tube, floating there with a rotary motion. A gas is evolved from the water and collects in the upper part of the tube. When the tube is full, place a glass plate under it and raise it from the water, invert it and rapidly apply a light to its mouth; the gas will burn with a pale blue flame—as in Exp. 19, Art. 19—and is readily recognized as hydrogen. Add reddened litmus to some of the water in the saucer, and it will immediately become blue, showing that the water now contains an *alkali*. On evaporating the water in the saucer, this alkali is found to be sodium hydrate, NaOH. The sodium must, therefore, have replaced one-half of the hydrogen in the water, in the manner shown in the following equation:—



Exp. 2.—Lay a piece of blotting paper on the surface of the water in the saucer, and throw upon it a small piece of sodium; an energetic decomposition of the water takes place, and in a few seconds the sodium will apparently burst into flame, and burn with a bright golden color. The apparent combustion of the sodium is really due to the burning of the hydrogen set free by the metal, which is inflamed by the intense heat which accompanies its evolution. This experiment differs only from the preceding one inasmuch as in the former case the hydrogen is collected, while in the latter it is burnt as it is liberated. The sodium hydrate may be rendered evident as before by the addition of reddened litmus solution to the water.

If potassium had been used instead of sodium in the preceding experiment, the blotting paper might have been dispensed with. The potassium glides about with a hissing noise, decomposing the water much more violently than sodium, the hydrogen evolved burning with a violet flame, potassium hydrate, KOH, remaining in solution in the water.

In these experiments care must be taken not to hold the face too near when the flame has ceased; for there remains a globule of the metal, which is in a melted state, and when it cools down to such a temperature as to permit the water to come in contact with it, steam is rapidly generated, and the melted metal blown out of the water.

69. By the action of Zinc on Dilute Sulphuric Acid.

Exp. 3.—The most convenient mode of preparing hydrogen gas for ordinary use, where absolute purity is not requisite, is by the action of dilute sulphuric acid on zinc. Take a strong flask,

with a flat bottom, of about 250 (10 oz.) cubic centimetres capacity, fit it to a good sound cork which has been previously well soaked in melted paraffine. Take a funnel-tube and a piece of glass tubing bent once at right angles, and bore in the cork two holes of such a size as to fit them, taking care not to make the holes too near the edge of the cork nor too near each other. Fit the funnel-tube into one of these holes so that it may reach nearly to the bottom of the flask, and join to the other tube, by means of a short piece of india-rubber tubing, a bent delivery-tube. Put 30 grams (10 oz.) of granulated zinc* or zinc clippings into the flask, inclining it to one side, and gently sliding the zinc down the neck, taking care that it does not fall heavily against the bottom. Fit the cork into the neck of the flask and arrange the apparatus so that the delivery-tube may be under the shelf of the trough. A straight tube, to the upper end of which a small funnel is united by a cork, may be used instead of a funnel tube. Pour through the funnel enough water to cover the zinc to the depth of about one centimetre, and try whether the joints are tight by blowing through the delivery tube till the water rises in the funnel, then pressing the connecting india-rubber with the fingers, and observing if the water remains in the funnel or descends very slowly. If it descends rapidly wet the cork and push it still farther into the flask; if there is still leakage it may be detected by the bubbling of the water through the cork and may be stopped by a little sealing wax, or more conveniently by a mixture of equal parts of bees-wax and turpentine, with a little Venetian red to give it color. Now pour through the funnel-tube sulphuric acid in small quantities at a time. The disengagement of the gas commences immediately, and when it slackens it may be invigorated by a little more acid. Great care must be taken not to add too much acid or the liquid in the flask will froth over. Should it exhibit a tendency to do so, pour some water down the funnel to dilute and cool the acid. If the zinc happens to be very pure the sulphuric acid will act upon it very slowly. In that case a few drops of copper sulphate will at once cause energetic action. Fill two bottles with the mixture of air and hydrogen which first escapes from the flask and reject it. This precaution is important as it will be shown that air forms with hydrogen a mixture which explodes upon contact with a light. As soon as the bottle is filled place a glass plate or small saucer under it, lift it out of the trough, and place it on the table mouth downwards. It is only necessary to collect one or two bottles of the gas at first, as the collection may go on while the experiments are being performed.

One ounce of zinc is sufficient to liberate from the acid about $2\frac{1}{2}$ gallons of gas; or 30 grams will furnish about 10 litres.

Scraps of iron may be substituted for zinc; but in this case the gas is less pure. It has a disagreeable odor, due to the presence of compounds of carbon and hydrogen, but these may be removed by passing the gas through tubes filled with fragments of wood-charcoal.

(To be continued.)

* Zinc may be granulated by melting it in an iron ladle and pouring it into a pan of water. If the melted metal is poured from the height of a yard or more above the surface of the water, the granules are spongy and very thin, presenting a large surface compared with their weight; whilst solid heavy granules are obtained if the zinc is poured at a distance of a few inches only above the water. The former kind is most convenient when a rapid current of hydrogen is required.

THE PRESENT AND THE POSSIBLE INFLUENCE OF THE HIGH SCHOOL SECTION.

J. E. WETHERELL.

When I agreed to prepare a paper on this subject I had but an inadequate conception of the task that lay before me. He that plunges into a river should know how to swim, but with inexcusable temerity I made a plunge, hoping that the waters were not deep. Deep I have found them and the current adverse, and I fear that I must acknowledge that but for the spectators on the shore my struggles would have terminated mid stream.

It is almost presumption in me who have been for so short a time a member of this section to assume the rôle of reviewer and reformer, but "I have some naked thoughts that rove about and loudly knock to have their passage out." This has been a remarkable year in the educational affairs of this Province. It has been a year of change. New statutes, new regulations, new curricula, new textbooks have been showered upon us. In such periods of unrest it will not be surprising if we are shaken from our wonted ruts of contemplation and are led to examine the very *raison d'être* of our collective existence as a branch of this Teachers' Association.

The general trend of what I have to say will be best indicated by three simple questions:—

1. What are the nominal functions of the High School Section of the Ontario Teachers' Association?
2. Are these functions practically effective?
3. Can the influence of this section be extended?

I have obtained from the secretary a copy of the constitution of the General Association and am informed that the High School Section has no separate constitution of its own. I must therefore deduce the functions of this section from the stated objects of the General Association and from our own *seasonal minutes*. I take it then that these functions are (1) to advance the interests of education by discussing various subjects connected with practical education and the profession; (2) to suggest to the university and departmental authorities such modifications or improvements in laws, regulations, and courses of study, as from experience may appear to the section expedient or necessary.

Now here we have the whole thing in a nutshell. The functions of this section are deliberative and advisory, and in deliberation and counsel they end, if indeed by the grace of "the powers that be" they haply go so far. We have an executive committee and a legislative committee, but an executive committee without actual and with scarcely a fragment of virtual power, and a legislative committee whose findings are as a drop in the bucket of legislation. We give ourselves the dignity of a deliberative assembly, but we constitute an assembly whose only office is to deliberate and advise.

Let us now examine the value of our deliberations and the weight of our advice in the councils of education. Let us take, *exempli gratia*, our last year's meeting and determine what was accomplished by this section. Let us see whether to any appreciable degree our deliberations and conclusions have moulded the legislation of the past year. Let us decide whether the influence of this section in the realm of secondary education is so powerful as to justify us in foregoing annually three days of needed rest in sultry August.

The voice of this section is heard in two quarters. We proclaim our desires on the one hand to the University Senate, and on the other to the Education Department.

At the last annual meeting of High School Masters a number of resolutions were passed with reference to University affairs. At the risk of being tedious I shall take them in their order.

1. That the University of Toronto be requested to recognize as fully matriculated students all who at the local examination shall score in the standard required for matriculation.

2. That the University of Toronto be requested to extend the local examination to boys as well as to girls.

3. That the University Senate be requested to place the subjects of Botany, Chemistry, and Chemical Physics on the University curriculum for junior matriculation, the examination in such subjects to be optional.

4. A motion relating to the objectionable nature of some of the papers set at the preceding matriculation examination of Toronto University and a request to the University Senate to have none but suitable persons appointed as examiners, and to secure that the examiners for matriculation should consist of a professor of the subject examined in, and if possible an ex-High School master.

5. A request to the University Senate to make the pass-work in Classics and Modern Languages at senior matriculation the same as that required for honor work in the same departments at junior matriculation.

6. A motion with reference to the amount of work to be required at junior matriculation in the subject of Latin Prose.

7. A motion with reference to examination in Canadian History at junior matriculation.

Here we have seven specific recommendations. What has been their outcome? The first and the second, in the matter of local examinations, are, I understand, to be followed soon. The third, with reference to science subjects at junior matriculation, has been honoured in the new curriculum. The fourth, respecting the appointment of examiners, has, I fear, not yet received all the attention it deserves. The hint regarding the appointment as examiners ex-High School masters has been duly recognized and has given us good examiners and unobjectionable papers in almost every case, but some examiners who have not breathed, or who have breathed too little, the salutary atmosphere of the school-room still display erratic pre-elivities and continue to excite the gaping wonder of the vulgar by their startling ingenuity and seemingly unfathomable lore. The fifth recommendation in relation to the harmonizing of the Honor junior and the Pass senior matriculation work has been followed as far as perhaps it was wise for the Senate to go. The sixth and the seventh recommendations receive their embodiment in the new curriculum.

It will be plainly seen from this *resumé* that the High School masters have the ear and the attentive ear of the Senate of the University of Toronto. Our wishes have been gratified almost *in toto*, and if this section accomplished by last year's meeting nothing else than the effecting of these changes we did not meet in vain.

Next, let us see what requests were presented by this section to the Education Department and how they were met. Only two motions appear in the minutes.

1. That in the opinion of this section the importance of book-keeping and of such other subjects already on the programme as have special reference to a commercial education should be recognized in connection with the departmental examinations.

2. That the Department be requested to select the sub-examiners from among High School masters and other teachers of practical experience.

These are seemingly all the favors we asked last year of the Department. The first recommendation has been observed. The second, I believe, has been followed in part.

How is it that we had so few requests to make to the Department, whose edicts affect our work so mightily, and so many requests to make to the University Senate, whose acts affect us materially, it is true, but only secondarily in comparison with the decisions of the

Education Department? How is it that of the seven marked changes made in matriculation work by the Senate of the University, during the past year, four proceeded directly from this section, whereas out of the many changes in the High School curriculum made by the Education Department during the same year of change only a solitary one proceeded from this section, while many of the others were introduced not only not with the approval of this section, but even in the case of many individual members at least, with decided disapproval? The reason is apparent. The University Senate made haste slowly, took us into their confidence, laid before us the proposed changes in the curriculum, asked and accepted our advice. The Education Department did not give us a similar opportunity of pronouncing in our corporate capacity on the proposed changes. So it happens that the changes in the University curriculum were either made by this section, or being made by the Senate, received our unqualified approval. So it happens that only an insignificant percentage of the new or amended articles in the High School curriculum of 1884-5 originated with us, while many of them—to put it mildly—were not entirely satisfactory. "Many men, many minds," is the popular proverb, but the proverb of the wise man is "In multitude of counsellors there is safety."

I have spoken of changes in courses of study. What about recent alterations in laws and regulations? Many have been made during the past year. We have had no voice in the making of these laws and regulations—I mean, no corporate voice. Individual teachers have been consulted and their opinions have been treated always with courtesy and sometimes with attentive consideration. *But this section, as a corporate body, has neither directly nor indirectly affected in the smallest degree the educational legislation of the past year, and only in an inconsiderable degree has it influenced departmental enactments.*

This section has a legislative committee whose duty it is to look after the interests of this section during the legislation affecting us. But you will find if that committee reports that the result of its endeavours will give you no ground for congratulation. In all this no rights of ours have been infringed for we have no legal status and no legal rights, but I wish to emphasize this fact—that our moral rights are often unacknowledged and our moral influence is at times quite inoperative.

Just here I may say that my remarks apply to a period antecedent to the opening of this annual meeting. Now is their force affected by the fact that the minister is about to lay before us for our cursory consideration, the High School Regulations of 1885-6? We are, I am sure, thankful for the opportunity which rumour says the minister will give us of perusing, in convention assembled, the proposed regulations, and if I had good reason to believe that the regulations would always be in process of making at a period coincident with our annual meeting, I should be inclined to throw much of my paper to the flames, but when I remember that twice in 1884, in March, I think, and again in September, new regulations were sent to the schools, I fear that the good fortune which we are on this occasion to enjoy, is of the *sic transit* nature, and although I shall appreciate the favor to be conferred, I must for the present proceed with my design.

Now comes the question—are High School masters of Ontario thoroughly satisfied with the influence they exert in all matters pertaining to their profession? On account of the peculiar position which we occupy in relation to the Education Department we are disposed to be silent even when we chafe the most at departmental vagaries and delinquencies. Our criticism of the acts of the University Senate are bold and ingenuous: our strictures on the acts of the Education Department, except when given *sub rosa*, are mild,

and shall I say at times somewhat disingenuous? In the one case our public utterances are delivered without fear or affection; in the other prudential considerations set a watch upon our lips. In the one case knowing that the corporations have neither heart nor sensibility, we fearlessly discharge our shafts; in the other we imagine that criticism of departmental acts may be construed as personal or political attacks, and we are apt to hold our peace even when we consider that our vested rights have been invaded; and consulting, as we think, our own personal comfort, we conveniently pursue a policy of silence. Now happily, we have at present at the head of educational affairs in this Province, a gentleman who is neither despotic nor morbidly sensitive, and who seems to thrive on criticism and almost invite it. If we should occasionally growl dissent I don't think we should very seriously alarm him, but it might induce him now and then to throw us a bone.

Here we are, the representative in a sense, of 325 men and women engaged in the noblest work on earth, not excepting even the sacred functions of the ministerial office, and engaged, I may say, in the noblest part of that work, in its middle and most important stage. Many of us should have "a knowledge which a long experience in the management and conduct of schools and the education of pupils, the training of teachers, and the practical use of text-books, alone can give," and being fairly conversant with the needs of the young natures for whose betterments we are spending our lives, should we not have more to say regarding the best methods of satisfying those needs?

Our corporate functions are, as has been said, deliberative and advisory. Our deliberations have usually been respected and our advice has frequently been asked and followed, but have we cause for complacency when most radical changes can be made touching the very props of our profession without an opportunity being afforded us for passing our opinion thereon?

Well, can any remedy be suggested for this state of affairs? For my part I should be the last to propose to add to the dual functions we at present enjoy the disagreeable attribute of remonstrance. Such a policy would only irritate, and would tend, for the present at least, to lessen rather than to extend our influence. But surely in respectful terms we may, without giving offence, have free speech regarding everything that appertains to our chosen life-work. In present conditions outspoken criticism is too apt to be misconstrued as the outcome of political animosity, but no teacher who is worthy of his vocation would here or there or anywhere in his official capacity, touch even the skirts of political partyism.

Do not misunderstand me. I do not wish to be regarded as disaffected towards the existing educational system. I do not fail to recognize the many valuable reforms that have been made during the last few years in the domain of education. Our system, notwithstanding the virulent attacks of root-and-branch educationists, is immeasurably superior to the system of the last decade. But the feeling to which I wish to give expression is this: that we as a body occupy, I shall not say a humiliating position (for no indignity has been put upon us), but an equivocal position. We come here annually, not as paid delegates, but at considerable sacrifice and expense with the hope that we may in some degree influence educational administration and legislation. We know that we have no legislation. We know that we have no legal rights, but we have been led to believe that our counsels have weight. We now, not by any means for the first time, discover that our influence is not as potent as we could wish. The problem is we—can we extend our influence? I think we can in one or two ways. These ways will be suggested by two considerations. First, only a small percentage of the high school masters habitually attend these

annual meetings. Secondly, we have no representatives on the Central Advisory Committee as we have on the University Senate.

What percentage, think you, of the high school teachers of Ontario are accustomed to meet in the annual convention? There are this year about 330 teachers, over 300 male in the High Schools and Collegiate Institutes of the Province. From the minutes of this section I find that there were present at our meeting last year just 28 masters, of whom 18 were head masters. Making allowance for omissions we see that not 10 per cent of the High School teachers attend these meetings. We see that while about 30 come hither from duty or from interest the other 300 disport themselves in green pastures and rove beside still waters. No wonder our influence is no greater! The wonder is that it is as great as it is. The wonder is that we are regarded in any sense as representing the High School teachers of Ontario. In present circumstances, then, I suppose it is scarcely reasonable to deplore our lack of influence. Are we to rest satisfied with this state of things? Our conclusions will never be regarded as embodying the opinions of the High School masters as long as only 10 per cent of the masters aid in reaching these conclusions. Can this unsatisfactory attendance not be increased, doubled, trebled, at the least? Every school should have a representative here. I believe that this can be accomplished. I know from personal experience and from personal intercourse with teachers who have never appeared here that an energetic effort on our part would produce astonishing results. I know it is inconvenient and expensive for many of us to come here. The bugbear of expense is, I believe, greater than that of inconvenience, but surely High School masters should be loyal enough to face it. I am not sure that a thoughtful committee might not find some way of lessening the difficulties in the way of attendance. At any rate let us not be satisfied with this fragmentary and irregular attendance. Let us, if we are to represent the interests of secondary education in this Province, represent those interests not only nominally but also in reality.

Again, we have no representatives on the Central Advisory Committee as we have on the University Senate to look after the interests of this section, to convey our conclusions, and to press our desires and claims. You know what we have been able to accomplish in late years through our representatives on the University Senate. Is it too much to ask that we should have one or two representatives on the Central Committee? This is not a new proposition. Two years ago a similar hint was thrown out by one of the wisest of our number. It may be said that we are represented on the committee already by the High School inspectors who were formerly High School masters. But—I say it with all respect for these gentlemen—surely their interests and ours are not identical. Their past experience in the schools enables them, to a certain extent, to sympathize with us and to understand our difficulties and desires, but they look upon our work from a standpoint different from our own. They can, from their serene height, look down upon our struggles with comparative indifference. What to them may be an interesting subject of debate may be for us a matter of momentous concern. I see difficulties in the way of following this suggestion, but not insuperable difficulties. It may be said that our position would not be much improved if we had representatives on the Central Committee, since that committee itself, as a board of reference and consultation, has no legal existence and enjoys but uncertain powers, and since we as masters are precluded from sharing the statutory duties of that committee. Whether the Central Committee, as an advisory body, has great or little power, we know that if we can gain an entrance to it we shall be one step nearer the minister's ear, which means a great deal in these days of hasty legislation.

If the minister should grant us two seats in the Central Advisory Committee—say one of our chairman, annually elected, and another for a representative elected by all the High School masters, we should have, as a section of this Association, an additional reason for existence, in enjoying the dignity of the franchise and in having no inconsiderable weight in the minister's council of advisers.

My suggestion regarding increased attendance and consequent increased enthusiasm at these summer meetings I am sure can be carried out. The proposition regarding representatives on the Central Committee presents more difficulties and I offer it with diffidence, still I hope that it will be found practicable.

In conclusion, I would say that I am far from depreciating the work that has been accomplished by this section in the past. The self-sacrificing labors of those masters—few in number—who habitually attend these summer meetings have by no means been without effect, but I am sure we can enlist the sympathies and gain the co-operation of more of our fellow teachers, and I believe, if not in the way indicated, at least in some similar way, we can extend the influence of this High School Section of the Ontario Teachers' Association.

Examination Papers.

HIGH SCHOOL ENTRANCE, JULY, 1885.

ENGLISH GRAMMAR.

Examiner—JOHN SEATH, B.A.

NOTE.—100 marks constitute a full paper. A maximum of 5 marks may also be allowed for neatness and writing.

1. (1) *Still in thy right hand carry gentle peace,*
To silence envious tongues.
- (2) *In Islington there was a man*
Of whom the world might say
That still a godly race he ran
Whene'er he went to pray.
- (a) Classify each of the foregoing sentences.
- (b) Classify each of the clauses (or propositions).
- (c) Analyze the predicate of (1).
- (d) Parse each of the italicized words.
2. Government, Person, Number, Mood. Explain the meaning or meanings of each of the foregoing terms, illustrating your answer by reference to the following sentence: *Thou shalt see him.*
3. Construct sentences to show that each of the following words may be used as different parts of speech: where, iron, English, no.
4. Pluralize: sheep, fish, cargo, negro, Mr., Madam, Miss money.
5. Give the other gender forms of: governess, hunter, murderess, witch, author, calf.
6. Write out the verbs in the following sentences, giving the reason in each case for your classification: *Having risen I went to the window where he had been, and I saw him try to jump off after speaking to the conductor.*
7. Give the other principal parts of: done, sung, singo, spread.
8. Express in as many ways as you can different degrees of each of the following: handsome, magnificent, best, badly.
9. Distinguish: "The crowd was in the street," and "The crowd were in the street"; "Thou art my friend," and "You are my friend"; "You will write," and "You shall write"; "John's and James's book," and "John and James's book," and "He divided it among them," and "He divided it between them"
10. Correct, where necessary, the following, giving the reason in each case:
 - (a) What kind of a person is your teacher?
 - (b) Every one should be guided by their own consciences.
 - (c) I had no idea but what he had been and gone and done it.
 - (d) He comes when more than one are present.
 - (e) So much grace and beauty are seldom seen.
 - (f) Her intelligence as well as her beauty surprises me.
 - (g) I hoped to have seen him.
 - (h) The fire burns bright.
 - (i) Not only Persia, but all Asia felt his power.
 - (j) You wouldn't hardly ink so.

HISTORY.

Examiner—JOHN SEATH, B.A.

NOTE.—75 marks constitute a full paper. A maximum of 15 marks may also be allowed for composition, and of 5 for writing and neatness.

1. Give an account of the coming of the English into Britain.
2. State the causes and results of the Wars of the Roses.
3. Show that Elizabeth's reign marked the beginning of a new state of things in England.
4. Outline the course of the English Revolution, stating its causes and its results.
5. Sketch the career of William Pitt, the elder. Describe the condition of England when he was at the head of her affairs.
6. Name the wars of England which directly concerned her North American colonies. Give an account of any one of them.
7. Show the truth of the statement that England and Canada are now governed by the people. Show also that this has not always been the condition of matters.
8. What makes an event or a person important in the history of a nation? Why is each of the following important in the history of the English nation: Hampden, Henry VIII., Wilberforce, Chaucer, the Treaty of Paris, and the French Revolution?

GEOGRAPHY.

Examiner—J. E. HODGSON, M.A.

NOTE.—75 marks constitute a full paper. A maximum of 5 marks may also be allowed for neatness and writing.

1. Define equator, tropic, horizon, glacier, water-shed.
2. What and where are the following: Prince Albert, Callender, Soudan, Khartoum, Herat, Cyprus, Quito, Battleford?
3. Name the principal cities and towns of Ontario (a) on the main line of the Grand Trunk Railway; (b) on the main line of the Canadian Pacific Railway.
4. Draw an outline map of the western peninsula of Ontario, and on it indicate the principal rivers, cities, and towns.
5. Name two of the principal productions of each of the provinces of Canada.
6. Trace the chain of the great Canadian lakes, and the course of St. Lawrence and Ottawa rivers.
7. State the boundaries of the following countries: Egypt, Russia, France, Brazil, United States of America.

READING.

Examiner—JOHN SEATH, B.A.

For the examination in Reading, the local examiners shall use one or more of the following passages, paying special attention to the Pronunciation, Emphasis, Inflection and Pause. They shall also satisfy themselves in any way they may deem proper, that the candidate can read intelligently as well as intelligibly. Not less than fifteen lines should be read by each candidate. A maximum of 50 marks may be allowed for this subject.

ONTARIO READERS.

1. The Road to the Trenches, pp. 234-235.
2. Bernardo del Carpio, pp. 242-243.
3. Song of Miriam, pp. 325-326.

CANADIAN READERS.

1. Murder Relenting, ll. 1-71; pp. 174-177.
2. How they brought the Good News from Ghent to Aix, pp. 211-214.
3. Canadian Loyalty, pp. 244-247.

ROYAL READERS.

1. King John, from the beginning to "come forth," p. 111.
2. Alas, so long! p. 138.
3. The Pickwick club on the ice, pp. 320-322.

ORTHOGRAPHY AND ORTHOËPY.

Examiner—J. E. HODGSON, M.A.

NOTE.—25 of the fifty minutes allowed for this subject are to be allotted to A, which is to be read to the candidate three times. At the end of 25 minutes the presiding examiner will distribute B among the candidates, who will, after writing their answers, fold them and hand them in with their work under A.

A.

With the instinct of despotism he had seen that the real danger which menaced the new monarch, lay in the tradition of the English Parliament; and though Henry had thrice called together the Houses to supply the expenses of his earlier struggles with France, Wolsey governed during eight years of peace without once assembling them.

A man of lax principles lacks character.

We must bow as we pass under the bough of that tree.

Wait till I am weighed.

Asiatic, conjugation, neuter, economy, hygiene, changeable, seizure, received, believed, rebel, separate, campaign, hypocrisy, nonsense, development.

B.

Indicate fully the pronunciation of the following words: massacre, towards, truths, heroism, gridiron, beneath, peril, pearl, geography, horizon, history, forbade, cleanly, (adj.), cleanly (adv.).

Accentuate the italicised words in the following sentences:

Their accounts of the *conflict* conflict with each other.

The very dogs *refuse* to eat the *refuse* you offer them.

Practical Department.

DRAWING.

BY WILLIAM BURNS, DRAWING MASTER, HIGH SCHOOL, BRAMPTON.

(The Editor of this Department will be glad to answer questions for information addressed to him in care of the SCHOOL JOURNAL.)

III.

The next step will be to introduce the pupils to the drawing of symmetrical figures of definite geometrical form. The symmetry of a figure can be readily shown by using a scalene triangle and an equilateral triangle as an illustration; draw these side by side, then, by drawing a perpendicular through the bisection of the base, it will be seen that one is of symmetrical and the other of an unsymmetrical form, similarly with any other figure chosen. Proceed then to the drawing of equilateral triangle, square, pentagon, &c. These may be drawn (i) within a given circle, and (ii) with a given base. Let a circle be drawn by some mechanical means, then place two diameters within it at right angles. By joining ends of these a square will evidently be formed; and by bisecting the four arcs, an octagon will be made. Again by marking off the length of the radius on the circumference proceeding from any given point within it, and joining these points, a hexagon will be produced, and if alternate points be taken, an equilateral triangle will be found. These are simply drawn, and accustom the pupils to the use of the terms employed, and also to the appearance of the figures themselves. Next to draw these figures on a given base. 1st. Equilateral triangle—take given base A B, bisect it in C, draw perpendicular from C, and measure from A or B the same length A B to cut perpendicular in C, by joining C A, C B an equilateral triangle is made. 2nd. Square. This is simplest drawn by making two lines at right angles, bisecting each other, if these then are made of given length, and the parallel lines drawn through them a square is formed, which can easily be drawn correctly by eye. 3rd. A hexagon may be made by first drawing on base A B, an equilateral triangle A B C, and on the side A C another equilateral triangle A D C; thus one-half the hexagon is procured, by producing the lines A C, B C, D C, and cutting off lengths equal to A B; the three other points in the hexagon can be found, and the figure drawn. 4th. An octagon—on A B draw a square, A B D C, and make its diagonals B C, A D produced; through A draw A E parallel to B C and equal to A B, this will give a point E of the figure; through E draw E F parallel to A C meeting C produced in F;

through F draw F G parallel to A D meeting A C produced in G ; similarly for other side of the octagon. We have now remaining the most difficult of these figures, viz: 5th, the Pentagon—take base A B as before, bisect it in C through C draw perpendicular CD, the vertex of the pentagon, as it is symmetrical must be in this line. To find this point, from C mark a point E, so that C E equal A B, join B E and produce it making E F equal to one half A B, then from centre B with radius B F draw an arc of a circle cutting C D in D, the point required. To finish the figure, measure arcs from A, B, D, cutting in points G and H respectively, and thus complete the pentagon. These plans of drawing geometrical figures may seem at first sight more difficult than those frequently given for free-hand drawing, but all these latter depend more or less on mere approximation, and cannot really be done well by those unaccustomed to drawing. We may, however, give the plan of finding a pentagon, both as an illustration of this fact, and as a useful exercise for pupils. Taking the lines A B and C D as before, through a point in C D a little lower than E, draw a line parallel to A B, making it slightly longer than A B, then by trying the lengths from A, B, D we may at last obtain a pentagon. When the figures are drawn let them be well "strengthened" in, and in doing this cause the pencil to be held more upright than in ordinary drawing. Then let the pupils place them in different positions to the eye by turning the paper round horizontally, when the least symmetrical inaccuracy will be easily detected.

Exercise.—(1) Draw a line of 2 inches long, upon it describe a square, on each side of square describe an equilateral triangle outwards, join vertices of these triangles, (when another square should be produced), within the first square inscribe a hexagon by means of circle. (ii) Draw a line 2 inches long. Upon one side of it draw a hexagon, and upon the other a pentagon.

THOUGHTS FOR TEACHERS.

From a column of "Thoughts from the N. Y. State Teachers' Association, collected by the N. Y. School Journal, we cull the following ;

Education is necessary to the continuation of a Republican form of government.

Courage, patience, self-control are the products of bodily health. Biliousness is as catching as the measles.

Cheerfulness is always a characteristic of a successful teacher.

Few teachers appreciate the full value of neatness.

It makes a difference to a teacher whether he keeps his finger nails clean.

The kingdom of heaven only comes to us when we are in the condition of little children.

Many teachers hold a normal diploma who cannot write a letter correctly.

Mental discipline is worth paying for.

Conceit comes from partial training.

So long as gold is valued as an ornament it will be counterfeited by many.

Will the best elements in a teacher command their price? The truth is, his commercial value must be rated at an approximation of his value.

There is a great difference between illustrative and demonstrative teaching.

A microscope belongs as much to a common school as a Webster's Dictionary.

How shall our teachers receive instruction how to teach physiology properly?

The law compelling teachers to attend the teachers' institute is not a good one. The institute should draw teachers to it. Very little good is done by requiring a teacher to sit and hear.

Many institute instructors often aim to convey the impression that they are "mighty smart men."

"More benefit comes from the institute than from all other sources combined."

"Institutes are first-class frauds."

The members of the Board of Education should be examined as to their abilities as well as the teachers whom they supervise.

Oh, for a superintendent who dares to tell all he knows about the qualifications of teachers under his care!

"An examination shows nothing as to teaching power." An examination on technical subjects does show a good deal as to teaching power.

If we live up to the laws we have, we may expect by and by to get better ones.

One of the prime causes of the superficial character of teaching is, that it has not definite point enough. We try to teach too many things.

All new methods are not golden ones, neither are they improved methods.

The greatest attention in reading should be given to the thought presented on the printed page.

There are many methods, both old and new, that may be used with great success.

Don't do in reading as one did who went to one of our large hotels and supposed he was expected to go through the bill of fare from the beginning to the end.

There may be too many practical operations in things, and not enough in that which the things represent.

Who shall stand in the hill of the Lord; who shall enter into His holy place? He that hath clean hands and a pure heart.

Most young teachers cram instead of teach.

There is no psychology that can be followed in a course of training.

Get a mental impression first; and then get or give the name.

We must discover the special needs of our teachers and then strive to meet these needs.

The dogmatist has no place in a true school.

Drop an authoritative manner.

Attempt but little, but do that little well.

Some one has divided teachers into two classes, those who teach from patterns, and those who teach from principles.

If young children do by doing, why can not the young teacher learn to teach by teaching.

Daniel Webster said of Mr. Choate's writing, that it looked like a gridiron struck by lightning. Yet Mr. Choate was a great man.

Educational Notes and News.

This is a slice out of the verbal part of a recent examination for a good Civil Service post. "What is the principal property of heat?" Answer: "To expand." "And that of cold?" Answer: "To contract." "Give me an example?" Answer: "The days are long in summer and short in winter."

The Commissioners of National Education in Ireland state, in their Fifty-first Report lately issued, that the number of pupils on roll who made any attendance at school between the 1st of January and the 31st December, 1884, was 1,089,079. The meaning of this is, says *The Schoolmaster*, "that upwards of a million distinct individuals were in attendance for some time throughout the year, and if this time were for only one day we still get knowledge of the fact that so many children require instruction, and that, under a properly regulated system of public education, a large proportion of them would be in attendance at the schools aided or supported by the State. When it is understood that the average daily attendance of pupil for the year 1884 was only 492,928, it is apparent enough that an undue proportion of the children requiring education are not receiving it. The number in average attendance in 1870 was 359,199, and, though the latest recorded average shows a substantial increase, still it is paltry and insignificant compared with the rapid strides in this respect made in Great Britain during the same period. An effective system of compulsory education,

santed to the circumstances and conditions of the country, is a crying necessity for Ireland, and we sincerely trust that a remedy for the present unhealthy state of things shall be found, and applied, at the earliest opportunity.

Samuel T. Hopper, B.A., has accepted the head mastership of Brighton High School. It affords us pleasure to note the progress of a promising career and therefore we give a brief record of Mr. Hopper's advancement. He graduated from Victoria University, May 1883, winning the Prince of Wales, gold medal for general proficiency and a silver medal in classics. He taught as assistant in Newburg High School for one and a half years and in Chatham High School for nearly a term as classical master. We wish him abundant success in his new sphere.

A correspondent of the Halifax *Herald* says of the popular Superintendent of Education, P. E. I.:—"Mr. Montgomery is a very pleasing speaker; he talks plainly and to the point. No stranger that ever addressed the Association made a better impression. He is a tall, slim man of 38 years of age, with sandy hair and mustache, and has been six years in his present honorable position. Before that he was Principal of the Normal School for three years and received his university training at McGill College. His accent betrays his Scotch descent." We agree with this graphic description of Mr. Montgomery in every particular except the part relating to his stature. Unless he grew "tall and slim" since we saw him last June, the *Herald* correspondent is astray. The newspaper man's ears were evidently good but we would advise him to get a better pair of spectacles.

The attendance in the Brighton High School has largely increased.

In England and Wales there was last year accommodation for 4,826,000 scholars, an increase of 150,000 or 3.3 per cent. for the year. In Scotland there was accommodation for 656,000, an increase of 3.5 per cent. The scholars on registers had increased in England and Wales 1.5 per cent., and in Scotland 3.3 per cent.

The annual meeting of the London branch will be held to-morrow night. The following is the prescribed course for 1885-6, and forty minutes each day from October 1 to July 1 will enable members to accomplish it:—History and Literature—Baines' History of Rome, Chautauqua Text Book of Roman History, Preparatory Latin Course in English, A Picture of Roman Life. Readings in Chautauquan—"Wars and Rumors of Wars To-day," "Relations of Rome to Modern History," "Modern Italy," "Italian Biography," "The Age we Live in." Philosophy, Science and Art—Political Economy, Studies in Human Nature. Readings in Chautauquan—"Electricity, past, present and future." Philosophy made simple—"Moral Philosophy," "Mathematics," "Art." General and Religious—Pomegranates from an English Garden, Select Poems from Robt. Browning, The Bible in the Nineteenth Century. Readings in the Chautauquan—"Religion in Art," "God in History," "How to Live." Sunday Readings—"Parliamentary Practice," International Law.—*London Free Press.*

The first Annual Announcement of Petrolia High School is to hand and it is pleasing to mark the rapid growth and healthy condition of the school. Although its age is only one year its record entitles it to rank among the best schools of the Province. Thirteen candidates were sent up to the local examination of Toronto University and eleven passed, and at the recent non-professional examination for Teachers' Certificates, seven succeeded in obtaining second-class, grade A; three, second-class, grade B; and nine, third-class. The staff of teachers is made up of S. Phillips, B.A., Principal, who takes Mathematics, Physics and Modern Languages, D. M. Grant, B.A., History, Geography, Classics and Chemistry, and Mr. J. Brebner, English Master. We congratulate the teachers on their successful work.

Literary Chat-Chat.

The October number of the *North American Review* contains twenty-three Articles by as many different contributors—among whom are an English Cardinal, an American Admiral, two American Major-Generals, two American ex-Ministers to European Courts, an American Artist, an N. Y. Assemblyman, an ex-United States Senator, the Mayor of New York, an ex-Governor of New York, two distinguished American Men of Letters, and a famous American Financier—Manning, Ammen, Ben. Butler, Fitz-John Porter, Elhu B. Washburne, Wm. Waldorf Astor (his first appear-

ance in literature), J. B. Eustis, of Louisiana, Wm R. Grace, of York, Theodore Roosevelt, Horatio Seymour, E. P. Whipple, Charles T. Congdon, Dorman B. Eaton, and some others less known. There is also a very characteristic private letter from Gen. Grant to his father, written from Milliken's Bend, just two days before he started in the Vicksburgh Campaign. It is contributed by Col. Fred. Grant.

It is said that Messrs. Harpor & Brothers have secured the exclusive services of W. D. Howells, at a salary of \$10,000 a year, the engagement to come in force as soon as his next story, about to be commenced in "The Century Magazine," is concluded.

At a breakfast given in New York by a distinguished judge to Mr. Irving, the host asked Matthew Arnold, who was present, why he did not take the title of Doctor, which he had seen conferred on him at Oxford. "There can never be but one Dr. Arnold," was the answer.

An English publisher is about to issue a second edition of that curious and scarce book, Jesse's Biography of Beau Brummell. It will contain a good deal of matter not to be found in the earlier editions, many additional notes, and upwards of forty illustrations.

Professor Suley is writing a brief life of Napoleon the First.

It is announced that Mr. John Morley is about to retire from the Editorship of "Macmillan's Magazine."

Little, Brown & Co. (Boston), will shortly publish a popular edition, in two volumes of Parkman's "Montcalm and Wolfe." The same firm has brought out a new and cheaper edition of Grote's History of Greece.

The "Bigelow Papers" of Mr. Lowell are shortly to be issued in two volumes in the Riverside Aldine Series.

The Venerable Whittier sent the following letter of congratulation to Dr. Oliver Wendell Holmes on the seventy-sixth birthday of the latter:—

"My Dear Holmes: Amidst the thanks and congratulations of thy birthday, I hope the kindly remembrance of thy old friend will not be unwelcome. My father used to tell of a poor innocent in his neighborhood, who, whenever he met him, would fall to laughing, crying and dancing. 'I can't help it, Sir, I can't help it. I am so glad you and I am alive!' And I, like the poor fellow, can't help telling thee that I am glad that thee and I am alive—glad thy hand has lost nothing of its cunning, and thy pen is still busy. And I say, in the words of Solomon of old, 'Rejoice, O young man, in thy youth, and let thy heart cheer thee in the days of thy youth;' but don't exult over thy seniors who have not found the elixir of life and are growing old, and 'past their usefulness.' I have just got back from the hill and am tired, and a pile of unanswered letters are before me this morning, so I can only say, God bless thee!"

Miscellaneous.

FINISHED.

She has graduated from her fashionable boarding school and come home. She has "finished her education," and next fall she will "come out." The chrysalis state is ended, and the butterfly state begins. She has been a nun for four years; and she thinks that quite long enough. Her father has paid four or five thousand dollars for her education. When he takes an account of stock, he shakes his head doubtfully, if he dares, he would question audibly whether the investment has paid. But he is under altogether too good discipline to raise any question. Besides, if the truth must be confessed, he knows more about the value of pork than of Latin, French, mathematics, and music. But he sometimes looks at the finished young lady, and remembers the artless and simple-hearted little girl of eight years ago, and in his heart of hearts he wishes that she had been left unfinished. He has the uncultivated taste to prefer the pine in its native wildness, as he remembers it in the pasture of his boyhood, to the pines in his Italian garden, trimmed and fashioned in all fantastic and unnatural shapes.

But though he sometimes has misgivings, she never has. She has gone through the appointed probation; has completed the ro-

cess of intellectual incubation, and has no doubt of her ability to fly. She can generally understand the French phrases in the last society novel, and so she has finished the modern languages. She can play a dozen set pieces on the piano, if she has her notes and is not out of practice, so she has finished her musical education. She has brought home in her trunk half a dozen crayon copies from pictures given her by her master, and after he has gone over them and touched them up they present a very respectable appearance; so she is a finished artist. She has read the first book of Milton's "Paradise Lost," and parsed most of it, so she has finished English literature. She can rattle off the names of the crowned heads of England, and knows that William the Conqueror won the battle of Hastings, that Henry VIII was not a model husband, and that Charles I. was beheaded by Cromwell, so she has finished English history. She has committed to memory the greater part of Butler's "Analogy," and recited it; so she is finished in Moral Philosophy. Finished! Poor girl! Infinity is about her, eternity is before her, and the germ of divinity is within her, and she knows it not. Finished! Alas! she does not know as much as poor Joe of Tom-all-alone's, for he knew well enough to say, "I don't know nothink." A musician who can tell you nothing about the schools of music or the great musicians—the passionate vehemence of Wagner, the intellectual depth of Schumann, the artistic perfection of Mendelssohn, the spiritual fervor of Beethoven! An artist who has never learned either to read nature or to interpret it, to whom the daisy is only a common weed, and the tree is useful only because it keeps one who hides beneath its shade from being frightfully sunburnt! A scholar who cannot tell you the difference between an idyl and an epic, between Milton and Pope, between Walter Scott and George Elot! She does not even know how to walk, but goes along the sidewalk with a mincing gait almost as excruciating to the beholder as it must be to her; nor how to breathe for she has tortured her beautiful form into the semblance of an hour-glass, through which the sands of life are running fast. Her expensive education has given her absolutely nothing but "accomplishments"—an ironical term used to signify the possessions of a girl who has incapacitated herself for accomplishing anything.

When a girl has "finished her education," she is spoiled, and a lifetime can hardly undo the mischief. Superficiality has developed nothing but self-conceit; and even a husband and children will hardly suffice to take that out of her. But, for the sake of girls yet unspoiled, we warn paterfamilias against the fashionable boarding-school that finishes education for its unfortunate victims. There are plenty of good girls' schools in America; no need any more to send to these finishing shops, which are all veneer and varnish. The true girls' school condemns the high-heeled shoe and the torturing corset, and gives a free, firm step, a graceful carriage, and a well-developed frame. It gives a love for music, not a mere mechanical skill at piano playing; a love for books, not a mere memorized list of authors and their works; a comprehension of the evolution of the race, not a mere table of dates and events; a love of nature, not a mere school-girl's crayon imitation of copies set. There are plenty of such schools in America—schools that, in lieu of accomplishments, endow with capacity for achievement. We are far from thinking that man's studies furnish the best material for woman's education. But our girls' colleges have had a hard task before them to establish the fact that girls can be educated, that they are capable of real development. That task is done. The capacity of woman for the highest self-development and her right to the highest self-development are no longer open to question. The ominous combination of "women, infants, and idiots" is relegated to the past. What is the best curriculum for the development of womanly character we have, perhaps, yet to learn. The male intellect cannot solve that problem by profound meditation in the study on "the sphere of woman." We must evolve the true intellectual gymnasium for girls, as we have evolved the intellectual gymnasium for boys, out of actual experiment. Meanwhile, with

Vassar, Smith, Wellesley and Bryn Mawr, with South, Hadley, Norton, Bradford, and Lasell, and with the innumerable fitting schools to which these and kindred institutions have given rise, presided over by women who are scholars and Christians, whose schools are not a chrysalis, and whose graduates are not butterflies, it is an unpardonable sin to send a poor rich girl to a fashionable school, where she learns to dress, but not to live; to talk, but not to think; and to pretend, but not to be.—*Christian Union*.

Question Drawer.

QUESTIONS.

(1.) What is the most approved text-book on Grammar for pupils just entering the Fourth Class? (2.) Has any new text-book on this subject been authorized lately, or is Miller's (Swinton's) Language Lessons still the one most recommended? C. B. Monerrieff.

(1.) Where can I find the regulations respecting the Intermediate Examination for 1886? (2.) Will there be any changes in the subjects for Third Class as published in JOURNAL, February 12th? (3.) Is it obligatory to write for the Intermediate before writing for Third Class? (4.) What is the best authorized English Grammar? A SUBSCRIBER.

Please tell me what text-book or books you consider best adapted for the use of students in preparing the Physics for Second Class and University physics examinations? A. B. C.

Please inform me through your "Question Drawer" to whom I should write to get a remittance of half what I have paid into the Superannuated Teachers' Fund. W. J. West Lorne.

Please insert the following questions in the Question Drawer:—
1. Analyze.—

(a) I am sorry that he said so.

(b) Whether he is a genius or not, he is considered so.

2. Bisect a triangle by a line drawn parallel to one of its sides (By the First Book of Geometry). A. A.

1. Is the term at Normal School to be lengthened after this year; if so, to what extent? 2. About what time will the first term after Jan. 1st, 1886, begin? 3. What steps must I take in order to enter a Normal School at the beginning of that term? 4. Where can the Drawing books required by candidates for Entrance to High Schools be obtained, and what is the price? INQUIRER.

Where can a copy of the Consolidated School Law be purchased, and what is the price? Please answer in next issue of CANADA SCHOOL JOURNAL. Yours, &c., W. J. M.

ANSWERS.

C. B. 1. Miller's Swinton's Language Lessons. 2. No new text-book on Grammar has been authorized. See above.

A SUBSCRIBER. — 1. In CANADA SCHOOL JOURNAL of the 10th inst. 2. See JOURNAL of the 17th inst. "New Regulations" for Teachers' Certificates. 3. No, certainly not. 4. See answer to "C. B." above.

A. B. C. — The Dynamics and Statics will be covered by Gage's Physics, text-book used in the Normal School, Magnus' "Lessons in Elementary Mechanics," and the Hydrostatics by Hamblin Smith's "Elementary Statics." There is no one text-book which fairly covers the whole ground. Wormell's "Elementary Natural Philosophy" comes nearer to it than any other work with which we are acquainted, and in the hands of a good teacher may be made to answer the purpose fairly well.

W. J. — Write to the Secretary of the Education Department, Toronto, for a blank form of application.

INQUIRER. — 1. No. 2. The third Tuesday in January. 3. Make application to the Secretary of the Education Department. 4. At the EDUCATIONAL EMPORIUM, 423 Yonge St., Toronto, or of any educational bookseller. Price 10 cents each.

W. J. M. The Consolidated School Law, and the new Regulations are being bound together in one volume and will shortly be sent gratuitously by the Department to all School Trustees. Whether the Department will make provision for selling them and at what prices we have been unable to learn.