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The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

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G. U. HAY, Ph. B.,
Editor for New Brunswick.

A. McKAY, Supervisor Halifax Schools,
Editor for Nova Scotia.

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THE EDUCATIONAL REVIEW

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Subscribers should promptly notify the REVIEW of change of addresses. Communications from New Brunswick and Prince Edward Island should be addressed EDUCATIONAL REVIEW, St. John; from Nova Scotia and Newfoundland to W. T. Kennedy, Academy, Halifax.

THE REVIEW will not be issued in July.

THE normal school exhibit, forming a part of the Nova Scotian educational exhibit at Chicago, has been receiving complimentary notice in the public press from visitors.

THE observations made by Nova Scotian members of the Botanical Club of Canada during the last season received complimentary mention at the annual meeting of the club in Ottawa last month.

ARRANGEMENTS are being made by the local committee of the N. B. Educational Institute to have a musical entertainment at the coming meeting of the Institute, which begins its sessions at Fredericton on Wednesday, June 28th.

OUR readers should not forget the summer school, which meets at Sackville, July 5th. The prospects are that the attendance will be large.

THE Bathurst school enquiry began on May 31st and is still proceeding at the time of our going to press.

WE have received the report of the Minister of Education for Ontario, together with a further report of the educational system of Ontario, by John Millar, B. A., Deputy Minister of Education. Both reports are of great interest, and lack of space prevents a review of their contents in this number.

At the recent meeting of the Royal Society of Canada, at Ottawa, a monograph was read on "The History and Present State of Botany in New Brunswick." Several members, in discussing the paper, spoke of the importance of collecting such information before it is too late in other provinces, so that when a complete work on the flora of the Dominion is published, the time for which, it is hoped, is not far distant, its author may have just such material as this ready at hand.

PRINCE BUONAPARTE, a grand nephew of the great Napoleon, has been visiting the Atlantic Provinces. He remained for a few days in Fredericton, St. John and Halifax. At Fredericton he visited the normal school, and expressed himself greatly pleased with what he saw and heard there. At Halifax, accompanied by the Lieutenant Governor, the Hon. Provincial Secretary and the Superintendent of Education, he paid his respects to the Halifax academy, St. Patrick's girls' high school and Alexandra school, taking in the kindergarten and the manual training school. The prince expressed himself much delighted with the evidence of progressive work which he saw in Sr. DeChantal's department.

CRAM.

At the present day cram is specially the mark of the lazy teacher whose work is as mechanical in observing the work of his pupils as if he were herding sheep. It is the mark of the ignorant teacher who does not know what education is. And sometimes we find it in the masterly disciplinarian who reduces the memorization of lessons to the precision of his military drill. When our teachers receive a more thorough training for their profession, when those acquiring skill can afford to remain in the profession, then we may expect to have less occasion to hear complaints of cram. But what have we a right to expect when for nearly thirty years of a free school system in a progressive province, no teacher was compelled or even received an inducement of serious value, to prepare for teaching by attending a normal or training school? Need we be surprised that in the profession there should be those who know not what education means? But even when the day comes in which all the teachers will be trained, when all will be so interested in their profession as to feel the use of being in touch with their fellow teachers through our local educational papers, even then, there will be hours of weariness, when the teacher may drop into the way of the mechanical lesson hearer and insist on cram.

With respect to the education of the olden time, we know there were men with the proper genius of the teacher, who developed just such characters as the world then needed. We also know that what might be considered a good education then, is now of but little value in many fields in the struggle for life. But never before were there better teachers than at the present day; and never before was there an approximation of the amount of good teaching which is done to-day.

SHALL WE GO TO THE WORLD'S FAIR ?

As holidays are now approaching, many teachers are asking themselves and their friends the above question.

As a friend who has been there and who has the desire to help them in this as in other difficulties we would venture a few words of advice.

With teachers one of the first considerations will be the cost.

The average cost may be easily figured up and with some degree of certainty.

Return Railway Ticket from Halifax	....	\$32 00
Meal, (Take Well-stored Lunch Basket)	..	1 00
? Pullman Car, part way,	....	4 00
Omnibus to Hotel,	....	50
Hotel Room for fifteen days,	....	15 00
Meals at Restaurant for same time,*	....	13 50
Car Fair on Illinois Central,	....	3 00
Tickets for thirteen Admissions,	....	6 50
Side Shows, say	....	3 00
Extras,	....	1 50
Cab and Meals on Return Journey,	....	3 00
Total	....	\$83 00

* The visitor should carry his lunch for midday and eat it on the grounds.

The sum given above is ample to allow any teacher to see and study the Fair to advantage and with comfort.

Of course where there are so many temptations to indulge in little luxuries it will require some self-denial to refrain from spending more. It would be well to have a few dollars extra in case of emergency.

Now as to the advisability of going. If you are a young teacher struggling to accumulate enough to carry you higher in your education, do not put yourself back two or three years in your studies for the sake of the Fair. If you have dependent on your small earnings a family or relatives, do not go. If you cannot get some reliable friend to go with you hesitate about going.

To all other teachers we would would say do not fail to see the World's Fair.

1. The buildings taken individually (with a few ex-

ceptions) or taken as a whole are more beautiful than your imagination can picture them. It will take you one or two days to get over the feelings inspired even by their magnificence, not to speak of their beauty which will grow upon you the more you see them.

2. The *exhibits*, in every department of human activity, are the best that have ever been produced. They show the most ancient as well as the most modern.

3 You may see in Midway Plaisance and elsewhere specimens of the peoples, customs and homes of Japan, China, India, Africa, Greenland, Samoa, Egypt, Turkey, and all other countries, and in two weeks you may acquire as much knowledge of them as the average traveller does after two of three years of toilsome travel.

4. You may attend some of the conferences of the foremost men of all countries discussing every subject in which you can possibly be interested.

5. Such school products as are capable of being exhibited will be shown from the best schools in the world. And not behind the best will be those of our own Canada—particularly those of Ontario.

6. You may see Chicago, the young giant city of the West, only sixty years old, yet with one million and a half of inhabitants, and covering a greater area than any other city in the world, and with every prospect of more than doubling its population before it doubles its present age.

And all this can be seen for how much? Well, let us see. If you don't go to the Fair, you will in all probability go somewhere else and perhaps have to pay \$20 or \$25 or more for travelling expenses, and as much more for board. You will do well to get off with less than \$50. But to go to the World's Fair will cost you only thirty or forty dollars extra—which amount is therefore the real cost of all the education and enjoyment which you can get from the finest exhibition which the world has yet seen.

As for danger from crowds, extortion or robbery, any common sense traveller has, so far as we could see, no more to fear than he would from a trip to St. John.

If you decide to go, buy a good guide book (for example, Hill's Guide to Chicago and the World's Fair), and study it in advance, or write to the Bureau of Public Comfort, Jackson Park, Chicago, and you will get the information necessary.

When you visit the Fair, spend the first day (official guide book in hand) in taking in the general situation, four days in a special study of your own department, taking notes of all improvements which you can introduce into your own school, three days among the state buildings and in Midway Plaisance

studying national characteristics, and five days for Art, Agriculture, Horticulture, Machinery, etc.

Do not fail to see the courteous and indefatigable Secretary for Canada, W. D. Dimock Esq., in the Canadian Pavilion, also the urbane and polite Superintendent of the Liberal Arts Department of Canada whose office adjoins the educational exhibit of Nova Scotia.

EDUCATIONAL PESSIMISM

The occurrence of a few cases of prostration during the closing examinations in some of the colleges has as usual brought to the front numerous critics of our school system who of course attribute it all to over-pressure, brought about by overloaded curriculums. Admitting that the physical collapse of these students was caused by over-work, it does not follow that the curriculum is responsible for it. How many students break down in trying to obtain a mere pass? Is it not rather in trying to obtain honors, prizes or class distinction that students break down? As long as human ambition exists, so long will this be the case, let the subjects of the curriculum be few or many. It applies not only to the student but to every other employment in life. As the world progresses and new fields open, the desire to excel increases, and more men and women injure themselves under the spur of ambition after they leave college than when influenced by its requirements.

Such questions as these are asked: Is our present school system turning out as good scholars as that of former times? Were not so and so better classical or mathematical scholars than the products of the schools of to-day? Is not the school work of the present merely superficial, consisting largely of what is called "cram"? Are not the school curriculums over-loaded?

It is not contended that our present school system is anything but the progressive evolution of former ones. Ripe scholarship has not been, and will not be confined to any age. That good classical and mathematical scholars were turned out by a few of our schools fifty years ago is admitted. Perhaps sound scholarship in those days attracted more attention when it was the heritage of the few and privileged class, than now when it is the right of all, rich and poor alike. Classics and mathematics were then the burthen of the high school work and no prescribed course of instruction interfered with the teacher or student in following his natural bent. It is said of one very distinguished classical student, the product of one of our former high schools, that he did not

know his multiplication table. It can be safely stated that no such one-sided students are turned out by the schools of to-day. In addition to classics and mathematics, and somewhat to the exclusion at least of the former, there has come a demand by the public for the practical and more utilitarian branches of study. More attention to science, modern languages, domestic economy and technical education is demanded. Only recently the Legislature has enacted that scientific temperance shall be taught in the schools, and the signs of the times are that before long agriculture and manual training must be incorporated in our courses of instruction. In one breath the schools are criticized because they are not practical enough, in the next they are found fault with because they are not turning out as good classical scholars as formerly.

Are our school curriculums over-loaded? If ripe scholarship in all the departments of knowledge they embrace is expected, they are. If on the other hand an accurate knowledge of the essentials, and an intelligent grounding in the underlying principles of less important subjects is only required, then it can be claimed they are fairly meeting reasonable expectations. Our school system is not perfect and never will be. It is simply keeping step with the times. It is the product of accumulated wisdom and experience to date. The systems of to-day stand upon the shoulders of those of former generations. The age of trained teachers, improved methods and appliances, comfortable school houses, co-education of the sexes and general diffusion of knowledge is not a backward one. The question is not, Are we turning out a few good scholars? But, Are we doing the greatest good to the greatest number?

TALKS WITH TEACHERS.

A teacher said to me a few days ago, "I encourage base ball because I find it causes a more regular attendance on the part of the boys." That teacher is wise in his generation and has given us a text which is the key note of all school work. Get the pupils interested in their work by making it pleasant as they find their play. Apart from this aspect of the case, would it not be more profitable for many of our teachers to take more interest in the sports of the pupils? Go into the playground with them and join them if possible in their games. If this is judiciously done there will be no loss of influence on your part, but rather, you will gain a knowledge of the pupils' disposition not to be obtained in any other way. It will be a healthful exercise for you, and will have a beneficial and elevating influence upon the pupils

without restraining them. Pupils are more susceptible to influence through their play than their work.

I notice that the St. Andrews schools have a horizontal bar in the school yard. How much that means to the boys and what a treasure they must regard it! What though they do sprain a wrist once in a while, they will not regard that since gained in such a way. I venture to assert that some of those boys are already subjects of at least the admiration of their fellows "on the bar," and excel in that direction more than in their studies. Why not? Is not physical culture desirable as well as mental, and should they not go hand in hand? Encourage all such sport. It would be a good thing if more school yards had horizontal bars and other appliances for sport in the school grounds. Encourage the boys and direct them when you can. They must work off their surplus energy, and the discipline of the school will be all the better for it.

On looking over the reports of the closing proceedings of the colleges I cannot help being impressed by the standing of the lady students in nearly all of them. What does this mean? It means that a great deal of the talk of the past regarding the larger brain power of man is rubbish. If this state of affairs continues it will soon be in order for the women to investigate as to the composition of men's brains as compared to women's. It would be insufferable if it were found that man is, and always has been, the inferior animal.

The Colleges.

THE UNIVERSITY OF NEW BRUNSWICK.

The encœnial proceedings at the university this year were of the usual interesting character. They were rendered more so probably by the fact that there was present Prince Roland Bonaparte, who chanced to be in Fredericton at the time. There was a graduating class of twelve, many of whom were young ladies. The opening of the college halls to young ladies seems to have been taken advantage of very largely. The fact that this year nearly all the college honors have been awarded to the lady students indicates either greater abilities on their part or less application on the part of the young men. Miss Francis Everitt, of York Co., had the honor of leading her class and carrying off the alumni gold medal. Miss Isabelle McIntosh, also of York Co., captured the Douglas gold medal. The Stanley gold medal was won by Mr. H. H. Hagerman, who also delivered the graduating class valedictory. Mr. Maggs won the Brydone-Jack memorial scholarship. Professor

Stockley delivered the address in praise of the founders. It was a thoughtful address. Inspector Bridges delivered the alumni oration. In was impressively delivered and attentively heard.

At the meeting of the alumni Hon. Jas. Mitchell and Dr. McLaren were elected representatives to the senate. The degree of Ph. D. was recommended by the alumni to be conferred on Geo. R. Parkin. In this it is understood the senate did not concur, though it will doubtless be conferred later. It was felt that in addition to Mr. Parkin's strong claim for recognition on the part of the university, there were other distinguished graduates worthy of similar recognition.

ACADIA COLLEGE.

Convocation exercises were held at Wolfville, June 1st. Acadia seems to be thriving more vigorously than the other Maritime colleges, if the size of the graduating class is any indication. Her class is the largest of any of them this year and numbers twenty-one. The programme of exercises was most interesting and the attendance very large. Oration were given by the members of the graduating class and numerous academic distinctions won by all the students were conferred. The programme was pleasingly varied with excellent music. The degree of M. A. was conferred upon C. A. Eaton, of the class of 1890, who has just completed his theological course at Newton. Addresses were delivered by Attorney General Longley and Judge Graham. In the evening a conversazione was held in the college hall. It was very largely attended.

MOUNT ALLISON.

The closing exercises at Sackville were varied and interesting as usual. There were musical recitals, an elocution competition, a supper to the seniors and a conversazione. Rev. Mr. Fisher preached before the theological union on Sunday morning and Rev. Dr. Sprague preached the baccalaureate sermon, both of which were inspiring and masterly productions. The closing exercises of the academy and commercial college were held during the morning of May 29th. There was a large number of graduates in the commercial department, the class having been doubled during the year. Miss Minnie Copp has the honor of being the first lady graduate of the commercial department of the college.

The anniversary exercises of the Ladies' College followed. These were held in Lingley hall. The French salutatory was delivered by Miss Woods, daughter of the Surveyor General of Newfoundland. Essays were read by Misses Morehouse, Mellish and

Smith. Miss Simpson gave the valedictory address. The music of the school orchestra and the singing of the class were excellent. Seven young ladies graduated M. L. A. The attendance at the Ladies' College this year was as follows: Boarders, 118; literary department, 138; art department, 55.

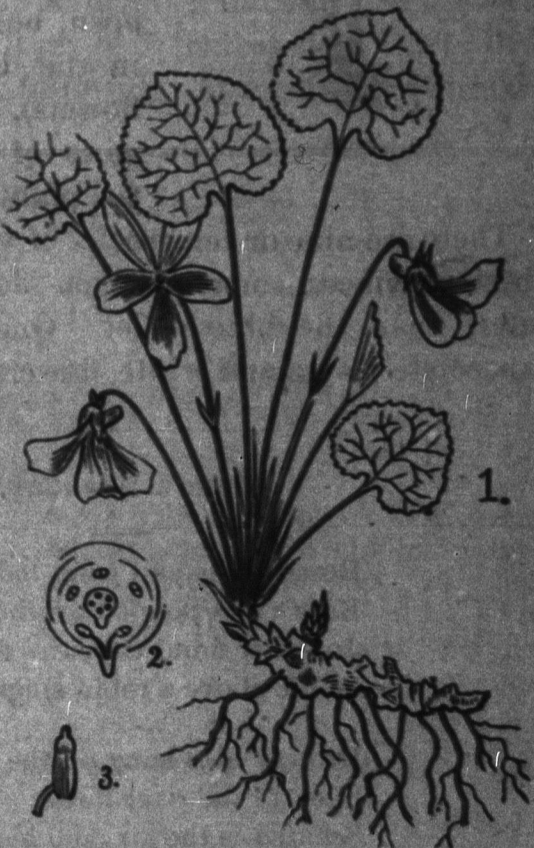
The convocation exercises were held on Tuesday evening. Some excellent orations were given by the members of the graduating class. The valedictory was given by Mr. K. King, of Hillsboro.

B. A. degree was conferred upon a class of fourteen, M. A. upon Rev. J. B. Smith, B. A., '81, Kentucky. D. D., upon Revs. B. C. Borden, M. A., Douglas Chapman, Jas. Dove, Edwin Evans, Wm. H. Heartz and Cranswick Jost. D. C. L. upon Hon. Justice D. L. Hanington, Hon. Justice G. E. King, Prof. B. Russel, M. A., Q. C., Prof. R. C. Weldon, Ph. D., M. P.

NATURE LESSONS.

THE VIOLET.

The blue violet, usually growing in clusters, is one of our most beautiful and variable plants. Its flowers vary from deep blue to white, and its leaves are variable in shape and size, and curled up at the base, bearing some resemblance to a hood, whence the name *cucullata* . The stem is a fleshy rootstock, toothed, the teeth being the places whence the leaves of former seasons have sprung. Nearly all the violets have these fleshy rootstocks, from which fibrous roots go into the earth, and from which the leaves and flowers spring up. The leaves have large stipules. The flowers are borne on stalks (scapes). The calyx is made up of separate sepals, five in number, and with little downward projections at the base of each (auricles). The corolla has five petals, the lower one having a spur at the base, which secretes the nectar; the two side petals are bearded. The stamens are five in number, pressed closely round the single pistil, the two lower ones having



VIOLA CUCULLATA, Ait.

appendages (see 3) which project into the spur of the corolla.

Directions for study in class.—See that each one of the class has one or more perfect plants. Let each pupil make drawings of the plant as a whole (Fig. 1) and of the different parts, such as a sepal, petal, stamen, and write out descriptions which may be read at the next lesson on plants. A cross section of the flower may be made and its parts shown as in 2. Make the lesson a drawing and a composition lesson, as well as one on plant life. Lead pupils to investigate. What is the use of the spurs in the



VIOLA LANCEOLATA.

There are nine or ten species of violet which grow in these provinces, some of which flower earlier, others later, than the blue violet. One of the latter with lanceolate leaves and white flowers is pictured here.

June's Noonday.

Roses white and roses red;
Rose vines tangled overhead;
June her floral treasures flings;
While above a robin sings.

Drowsy bees hang on the rose;
Silently the river flows;
Scented is the air, and high
Flies a swallow in the sky.

Love knocks at my lady's bower;
Comes he with the regal flower;
Cries he, "Rouse ye, and away,
Know ye not 'tis roses day?"

—Albert Hardy, in *New England Magazine*.

For the Review.]

Planetary Notes for the Summer Months.

MERCURY will be evening star from June 5th to August 8th. Easily visible to the naked eye from the middle of June to the middle of July. Good eyes that know where to look will find him several days earlier and hold him several days later. Between the moon and Venus on June 14th—moon very young, only eighteen hours old at sunset—Mercury a degree north of Venus and about three times as far from moon. Passes Mars between evenings of June 26th and 27th. At greatest elongation July 11th, but past his best before then. To east of moon July 14th—west on 15th. Overtaken by Venus July 21st. During last week of August and first week of September in fine condition as morning star.

VENUS is evening star for the rest of the year, setting later and later after the sun until fall, and growing brighter and brighter till after the close of the year. In June she is passing through Gemini; July, through Cancer into Leo; August, through Leo into Virgo. For meetings with Mercury see above. Passes Mars between evenings of July 8th and 9th—the two very close on 9th at 10 a. m. On July 14th Venus, Mars, Mercury and moon all near each other in early evening. Due south of and near the moon at 9 p. m. June 14th, 6 p. m. July 14th, 7 p. m. August 13th. On the afternoons of these days it will be easy to have a daylight peep at Venus, but those who know where to look for her can have this any clear day for the rest of the year. The only bright star that she will pass very near during the next few months is Regulus. On the evening of July 27th an opera-glass will show this star about a degree south of Venus. Using 50 for her brightness on June 25th, it will rise to the following values in the course of the year—55 July 27th, 60 August 19th, 70 September 13th, 80 October 3rd, 100 October 28th, 140 November 28th, 200 December 28th.

MARS makes a poor show this summer, but it is still easy enough to see him in the early evening. It will be easiest at the time when he is near Venus, or Mercury, or the moon. The dates of these are given above.

JUPITER is morning star. In the middle of June he shows up between 2 and 3 a. m., and earlier as the weeks go by. In the middle of August he may be seen before midnight. A field-glass will show him when passing the meridian in daylight, if pointed at the right spot. For June 15th the time for this is 9.30 a. m. (mean) and the place 16° to 17° north of where Saturn now crosses the meridian; July 15th, 8 a. m. and 18°; August 15th, 6 a. m. and 19°. The

later in the season it is, the easier it will be to find him thus.

SATURN is evening star—in Virgo, near Eta. He has just stopped moving back towards Eta and is bracing himself for a forward movement towards Gamma, with which he made such a splendid pair in April. He will reach Gamma early in August, but won't pass so close to it as in April. He is past his best for this year, but is still ready enough to show his ring and his largest satellite to a power of 40 or less. The moon will be near him on June 21st, July 18th and August 15th, near enough on each of the first dates to make an occultation—neither of them visible here, however.

URANUS is evening star—near Lambda Virginis—on the east side, between Lambda and Alpha Libræ. There is nothing as bright as it along the line between these two stars. He will continue moving very slowly towards Lambda until the middle of July, and will then turn and move east towards Alpha. April and May were the best months for seeing Uranus, but it is still visible to the naked eye in a clear sky on a dark night. Don't believe those who tell you that a telescope is needed to see it. If your eyes won't reach it, use an opera-glass.

NEPTUNE can be found with a field-glass and can be seen with an opera-glass, but one needs to know very exactly the right spot to look at. It seems scarcely worth while to try to give directions for finding this spot now, as, for the next few months, Neptune can be seen only in the morning.

MINOR PLANETS. None of these will be within easy reach of a small glass for several months.

A. CAMERON.

Yarmouth, N. S., May 31st, 1893.

Why is it?

Bees never store up honey where it is light?

The moth has a fur jacket, the butterfly none?

Leaves will attract dew, when sticks, boards and stones will not?

A horse always gets up fore parts first, and a cow directly opposite?

Corn on the ear is never found with an uneven number of rows?

Fish, flies and caterpillars may be frozen solid and still retain life?

Some flies thrust their eggs into the bodies of caterpillars, but always in such parts of the body that when the larvæ are feeding on the flesh of the foster-parent they will not eat into any vital part? Can this be explained? Does the fly reason?

For the Review.]

New Brunswick Schools of the Olden Time.

By W. O. RAYMOND, M. A.

(Continued.)

The names of 120 families of Indians living at Maductic are given in Mr. Dibblee's returns to the New England Company. These names are quite interesting, although the modern school-teacher would probably apply for increased salary if obliged to struggle through a daily roll-call with such names as Pemmyhawick, Franwagemic, Pemmacola, Ellazonpa, Monopos and Aquahartis. The influence of the French on the river St. John is displayed in many of the names borne by the Indians, as, for example, Augustin, Pierre Joseph, Sabatis, Nicolas, Madalencis, Noel Priest. More recent intercourse with the English appears to have been responsible for such names as Grand John, Little Joe, Molly Bisket, Joseph Wilmot, Joseph Murray, Joe Murray and Joe Murray Sis.

Many names display a curious intermixture of nationalities, as, for instance, Pierre Peter, John Tobac, Thomas Quodpan, Michel Maductick, Governor Tomai, Nuel Sermacola, Joseph Lurgorstai.

The Indian school at Woodstock included both old and young, married and single. At the beginning of the year 1790 the scholars numbered twenty-two. A few weeks later they had increased to thirty-five, as appears in the following return made February 1st, 1790:

Families.	Number.	Scholars.	Books.	Hats.	Pork (lbs.)	Corn (bushels.)	Cloth (yds.)	Linen (yds.)
Joseph Dinney's,	11	6	4	4	102	20	23	19
Joseph Murray's,	5	1	..	..	40	10	8	9
Pemmyhawick's,	7	4	2	2	62	15	17	13
Pemmacola's,	5	3	1	1	42	9	7½	7½
Aquahartis',	8	4	1	..	65	11	15	12½
Madalane's,	8	4	2	2	95	13	17	10
Sabatis,	8	4	..	..	40	10	15	15
Alozel's,	6	3	..	..	37	7	12½	7½
Michel Lue's,	4	1	..	..	15	3½	2	..
Lomai's,	5	2	..	..	24	6½	..	..
Saumbets',	6	3	..	..	38	8	10	7½
Total,	73	35	10	9	560	113	126	101

The supplies enumerated above were issued during a period of eleven weeks, and in addition to the articles named the Indians received allowances of beans, potatoes and salt. In another return, covering a period of six months, the cost of the "Necessaries for the native Indians at School at Woodstock" is given as £106. 13. 1½, of which sum twelve shillings was expended in the purchase of eight spelling books

at 1s. 6d. each, and four shillings and six pence were spent for three quires of writing paper at 1s. 6d. per quire. In other words, the cause of education was promoted by the expenditure of \$3.30 for books and writing paper, and \$529.12 for provisions and clothing. How absurd! We recall the rebuke administered to Falstaff: "O, monstrous! but one half-penny worth of bread to this intolerable deal of sack!"

The parallel columns above suggest the idea that a hat and spelling book went together in the distribution to the natives in much the same way that a chromo and a newspaper have been associated in more recent times.

However, there is abundant evidence to prove that Frederick Dibblee was sincerely anxious to promote the well-being of the Indians—by whom he was much beloved. He made considerable progress in the Indian language, and was able to converse with them quite readily.

It is a little amusing to read in the annual report of the S. P. G. for 1792, that in order to help Mr. Dibblee in his work of educating and Christianizing the Indians, "the Society have furnished him with a quantity of Indian prayer-books, published by the late excellent Col. Claus." The point of the joke consists in the fact that these prayer-books were in the *Iroquois* dialect, which was quite unintelligible to the Maliseets of the St. John who belong to the Alogonquin family, which differs very materially in language from the Iroquois.

It would appear from Mr. Dibblee's annual returns that the Indians displayed the same lack of fixity of purpose as regards the benefits of education that has ever been one of their prominent characteristics. The names of the scholars enrolled in the school were perpetually changing.

The weak point in the Indian character referred to has persisted even to the present day. Sixty years after Mr. Dibblee's first attempt to establish an Indian school at Woodstock, there was an Indian school at the French village (ten miles above Fredericton) taught by Mr. M. Neville, at which there was an average attendance of sixteen scholars. In this school many of the little ones had learned to read very nicely, spell very well, and they excelled in writing, as indeed Indians generally do in imitative arts. The inspector, John Davidson, Esq., however, writes in 1852: "The task of instructing them is truly a difficult one, and requires the greatest patience and perseverance. Naturally of an idolent disposition, they are seldom ready for school at the proper time, and the teacher is obliged to go round the village and collect them himself." Mr. Neville found some encouragement in the fact that in the winter season a large number of the older Indians attended and took great interest in endeavoring to learn something of the different branches.

(To be continued.)

For the REVIEW.]

Language.

"The works of God are fair for naught,
Unless the eye—in seeing—
Sees hidden in the thing the thought
That animates its being."

A great deal has been said and written lately concerning the lack of good penmanship in the schools and a much needed reform in progress in the methods heretofore in vogue in teaching that subject. But far above the ability to write legibly and rapidly stands the ability to clothe ideas and thoughts in graceful and beautiful garments. Whether this subject presents more and greater difficulties to the average teacher, I do not know, but the fact that few pupils, even of the academies, can write a respectable business letter much less a literary production, worthy the name, would seem to indicate that this is the case. Even among teachers themselves a correct mode of expression and an easy, graceful style of composition is more of a rarity than one would imagine. I believe that the school board of any of the larger towns will vouch for the correctness of this statement. If it be true that "the teacher makes the school," it is not difficult to understand one, at least, of the causes of this deplorable condition of affairs respecting language.

Jacotot says that "one may teach that of which he is himself ignorant."

It is evidently in accordance with the spirit of Jacotot's maxim that language is taught in the majority of our schools at present, and the success which attends the effort is exactly proportionate to the degree of knowledge of the subject which the teacher possesses. With all due deference to Jacotot's opinion, it is nevertheless true that the teacher who uses incorrect forms of language, interspersed with vulgarism and slang in the school-room, will never be successful in training pupils to use correct English and to clothe it in graceful forms of expression.

The blind have never yet proved themselves competent leaders of the blind—when there happened to be a ditch in the vicinity. The first requisite to the successful teaching of language is that the teacher should himself have a thorough training in English, and should use the very best modes of expression in his constant intercourse with the pupils. Without being aware of it, they will learn to distinguish good and bad forms of language and to select the good by the mere association with one who never permits himself nor them to use any other. As a man's manner insensibly takes the tone of the society he frequents, so will his language bear the impress of that style with which he is brought into constant contact. A scarcely less important requisite to success is that more time should be devoted to the subject. At present the majority of schools devote eight hours a week to arithmetic and one hour a week to composition.

Is it matter for surprise that both teachers and pupils take little interest in the subject and that their progress is of the most limited description?

Another great obstacle to the formation of correct modes of speaking and writing is the tide of abominable trash called "cheap literature," with which the country is flooded.

It would seem that those who supply this pernicious literature to poison and dwarf the minds of our pupils are not even capable of writing correct English. This trash has the effect of transporting the young reader from the realities of every day life and placing him in an imaginary world full of impossible dreams and bewitching shadows. This imaginary existence possesses for him all the appearance of real life in addition to the fascination of the opium smoker's dream. He sees life through the rose-colored light of imagination, uncontrolled by any effort of reason. It is a kind of intoxication. It unfits him for the duties and struggles of ordinary life, and at the same time gives him a distaste for that exertion necessary to success. He is always expecting the inevitable prince or princess, by whose advent and favor he is to rise superior to the trials and cares of existence—waiting for the "fickle dame" to fling a fortune at his feet. His mind loses tone, fancy pictures take the place of stern realities, and instead of performing his allotted tasks bravely and earning success, he passes his days, like Micawber, "waiting for something to turn up." There is but one remedy for this false idea of life's duties, and that, like most remedies, consists in prevention rather than cure. His taste for good literature must be formed and trained from the start by association with the works of standard authors.

"We should accustom the mind to keep the *best company* by introducing to it only the *best books*." Pupils should have the best and nothing else. "They should see nothing, hear nothing, read nothing, but the best." By a careful selection of what is beautiful, by rigidly banishing what is pernicious, by a never-ceasing vigilance in both directions, he will, in time, come to despise the coarse expressions—the slang—the lies of the sensational story, and fix his affections on those authors who appeal to the purer and nobler attributes of his intellect. When that time comes it may safely be left to their influence to mould his language and direct his thoughts.

NEMO.

Halifax, N. S.

For the Review.]

Vertical Writing.

1. Are the advantages of vertical writing such as to justify its adoption by all the Halifax schools?

In my opinion they are. The following are some of the arguments in favor of its adoption:

(a) The posture to be assumed for vertical writing being "central," *i. e.*, directly in front of the writer, is the best from a hygienic point of view. There is least inclination to twist the spinal column, and the rays of vision from both eyes converge upon the writing. If the writing be placed to the right or left of the central line, there must be an uneven strain on the sight of the right or left eye, as the case may be.

(b) Vertical writing is more legible than sloping writing, and more nearly resembles print.

(c) It is more uniform and symmetrical in appearance. When the writing slopes the slightest change of posture gives a different slope. Not so with vertical writing, as it is always at right angles to the line of direction.

(d) It is easier taught. Children sooner comprehend

what is meant by upright than they understand the exact slope of 45° or 60°.

2. What position of the body favors legible and rapid writing without in any way affecting (injuriously) the pupils' health or development?

The direct "central." The best posture for this end is for the front plane of the body to be parallel with the direction of the line of writing. The line of vision should be directly at right angles with this and not oblique. The desk should be high enough to enable the pupil to see clearly without depressing the chin, but not too high for the pupil to rest the whole weight of the fore arm. Both arms should rest on the desk at an angle of 45° with the front plane of the body.

This position is the one usually adopted for drawing lessons, and it is also recommended by eminent stenographers as the position for reporters to adopt in order to attain the highest speed in verbatim reporting.

3. What is the best way of holding the pen?

While a pupil is learning to write, I do not think a better way of holding the pen can be suggested than the way illustrated in Gage's Copy Books. This style is open to all sorts of modifications, depending on the size and formation of the hand. Where it is practicable, I think the thumb and two forefingers should share the work between them. In cases of malformation of the hand, the teacher should suggest the best method. For rapid writing the way of holding the pen should be modified so as to reduce the amount of friction to a minimum. This may be done by letting the penholder run in a parallel direction with the writing. This position gives more rest to the hand and is less likely to produce cramp in the fingers.

4. Should the best position in writing be insisted on in all pen and pencil exercises?

In my opinion it should, as it is only by constant practice the habit of a good position can be formed. If children are allowed to practise while sitting in a slovenly posture they will be careful to avoid the correct position when opportunity offers.

5. How can you best teach writing? by the use of ordinary copy-books or by the use of exercise paper and moveable head lines?

In the lower grades it is easier and secures better results to teach writing by means of blackboard lessons and exercise paper. The teacher can then explain each element to the whole class or grade at once instead of individually. Certain mistakes in writing are general mistakes with the majority of the class, *e. g.*, imperfect joinings, irregular heights, omission of dots to the *i*'s and crosses to the *t*'s, irregular distances between words, etc. These can be dealt with one by one as they occur. The teacher can teach the elements of writing more thoroughly thus than by using copy-books in the earliest stage. After this movable headlines may be used, provided all the children in a class have a similar headline. The teacher should first write the copy on the blackboard, drawing the attention of the children to any new element introduced. This system I have found to produce a uniform style and general progress.

In the higher grades I think the pupils will be most benefited by the use of copy-books. A greater variety of

writing is placed before them by this means than can be furnished by headlines.

This system of teaching writing in three grades gives a stimulus to the pupils to qualify themselves for the use of copy-books.

6. What are the prominent causes leading to bad writing?

Bad position.

Uncorrected errors.

Allowing children to scribble slate exercises.

Insufficient practice in art of writing, etc., *ad infin.*

7. About what age should pupils begin penmanship, properly so called, as distinguished from the drawing of letters?

About eight years of age I think is early enough. If a child start the art of penmanship with the third grade and second reader he is likely to make more rapid progress than if he commence it earlier. It is a great mistake to expect a child to acquire the knowledge of the formation of print and script concurrently.

W. S. WOOD.

Halifax, N. S.

Corporal Punishment.

THE TEACHER'S AUTHORITY TO INFLICT IT AND ITS LIMITS.

[The following article, copied from the *Atlantic Weekly*, is from the pen of Principal Miller of the Dartmouth, N. S., public schools.]

There is, perhaps, no topic connected with practical education, concerning which there exists such diverse and conflicting opinions, and there is certainly not one in regard to which there exists so much ignorance among both teachers and parents. It is important that all the information possible should be given regarding this much vexed question, for two reasons:—

1st. That teachers may be careful not to over-step the limit of their authority in the government of their pupils:—2nd. That they may not always accept as final the decisions of petty courts whose presiding magistrates possess very little if any more information on the question at issue than those on whom they presume to sit in judgment.

My object in writing the present article is to give briefly the principal arguments for and against "Corporal Punishment" as a means of "School Government." . . . Without order no work of any importance has ever been accomplished. It is the problem which faces every teacher as he or she steps across the threshold of the schoolroom. To find a satisfactory solution to this problem has furrowed more brows and silvered more heads than the search for the "Philosopher's stone," or the "Elixir of Life." The failure to arrive at a satisfactory conclusion has driven many a teacher from the profession, who in all other respects possessed the elements of success.

Who cannot call to mind such a one, educated, loving, zealous, but lacking that firmness, that decision, that will power which controls not only ourselves but others, surrounded by a horde of little imps who have discovered her weakness and are imposing upon it, disobeying every order, disregarding threats, entreaties, tears. These dear children of ours are terribly pitiless to any weakness of those in authority.

Corporal punishment as an educational factor has the sanction of the highest authority (the Bible) and the testimony of many of the great names of antiquity.

Solomon evidently believed firmly in it. "He that spareth the rod, hateth his son." "Foolishness is bound in the heart of a child; but the rod of correction shall drive it far from

him." "Chasten thy son while there is hope, and let not thy soul spare for his crying." "The rod and reproof bring wisdom, but a child left to himself bringeth his mother to shame."

But perhaps Solomon's reputation for wisdom would not have ranked so high had he lived in the 19th century.

Dr. Johnson says:—"My master whipped me very well; without that, sir, I should have done nothing."

Goldsmith says:—"Though tenderness is a requisite quality in an instructor, yet there is often the truest tenderness in well timed corrections."

Coleridge says:—"I had one just flogging." He had told his preceptor that he "hated the thought of being a clergyman," because he was an infidel. "For this," says he, "Bowyer flogged me—wisely I think,—soundly, as I know." "Any whining and sermonizing would have gratified my vanity, and confirmed me in my absurdity."

Mrs. Williard, Principal of Troy Seminary, says:—"I believe that corporal punishment should be resorted to as soon as other means of discipline fail."

Page after twenty years' experience says: "I do not hesitate to teach that corporal punishment is one of the justifiable means of establishing order in the school room."

Horace Mann, an enthusiastic advocate of moral suasion, says, "It should never be inflicted except in cases of extreme necessity."

Children are gathered into the schoolrooms from thousands of homes, in which there are operating a thousand influences differing from each other as widely as possible,—from the open depravity of unrestrained animal passions to the deceit and hypocrisy resulting from a too rigorous deprivation of amusement and boyish fun. All these diversities of mind and temper are to obey the same regulations, pursue the same course of study, and aim at the same results. To affirm that these ends may be accomplished without resorting to corporal punishment is to affirm two things:—

1st. That this great mass of children taken from all varieties of homes, of all ages and conditions, can be prevented from doing wrong and persuaded to do right—without punishment.

2nd. That the teachers (the majority of whom are young and inexperienced girls) are able to accomplish so grand a result. Neither of these assertions can be sustained for a moment.

It is nonsense to say that *this, that or the other* can be done, and done immediately without pointing out the means by which it *can be done*.

On the other side, it is indisputable that this means of punishment has in the past been terribly and cruelly abused both by parents and teachers. When the brutal and cowardly atrocities perpetrated upon helpless and innocent children are considered, when the cruel instruments used in the infliction of them, and the debasing and shameful methods resorted to are remembered, it is little wonder that this means of government appears to many to be revolting and unjustifiable. It is a fact that in whatever countries the rod has been used, it has degenerated into an instrument of torture.

It is necessary in examining the arguments put forth against corporal punishment as a means of school government, to distinguish carefully between a judicious and moderate use of it in exceptional cases, and an indiscriminate daily *abuse* of it by cruel and in many cases ignorant schoolmasters.

The race of schoolmasters of the "Squeers" type is extinct. The world would no more tolerate such a monster to-

day than it would the black flag of a "Kidd" or the torture-chambers of the middle ages.

Montaigne says, "Do but come in when the boys are about their lessons, and you shall hear nothing but the outcries of boys under execution and the thundering of pedagogues drunk with frenzy."

Cowper in the "History of the Rod," tells of a schoolmaster that during his fifty-one years charge of a large school had given 911,500 canings and 121,000 floggings. He had made 700 boys stand bare footed on peas and 6000 kneel on a sharp piece of wood.

Girls and boys alike were subjected to the most disgraceful and indecent flagellation.

"Many a white and tender hand, which the fond mothers had kissed a thousand times, have I seen whipped till it was covered with blood," says a writer in Spectator.

Lynam Cobb says, "I believe that corporal punishment has a degrading and hardening influence on those who receive it, and on those who inflict it.

While the names of Johnson, Coleridge and a host of others who grew up to be men of high character, disprove the first proposition; it is a fact that those who are accustomed to inflict pain on others become harsh and tyrannical themselves. Emerson says, "My experience is that the effect is necessarily bad on those who inflict the pain."

Most of the objections quoted above as before stated, may be shown to be arguments against the *abus* not the *use* of corporal punishment.

Thus it is affirmed that the punishment is often inflicted in anger — frequently excessive — administered in an improper manner or with unsuitable instruments.

All this is true and some go so far as to declare that where this form of punishment is permitted at all, these abuses are to some extent at least unavoidable.

The only questions we have to consider are, 1st, Is corporal punishment ever necessary as a means of discipline? 2nd, Under what restrictions and in what cases should it be permitted?

In judging of its necessity there are two things to be considered: 1, the nature of the child to be governed; 2, the regulations under which school discipline is to be enforced. All vapid gush and sentimentality is of course to be thrown away, and the hard facts of experience alone must be regarded. We must consider human nature as it is in school children and not as we would wish it to be.

We must consider the selfishness, wilfulness, idleness, mischief that must be controlled before instruction can accomplish anything, and before concluding that this form of punishment is never necessary, we must be prepared to show that under all circumstances which may arise, this control can be effected and maintained without any appeal to physical correction.

Is it not a fact that there are children so self-willed and wayward from lack of proper government at home that there is no way or controlling them except through the fear of bodily pain?

Many people (who have never tried the experiment) say, if you cannot control a boy without beating him the proper remedy is to expel. Expulsion is a tacit admission of the inability of the public school system to perform that *duty* for which it was mainly instituted. "The vicious and ignorant pupil is the very one," says Page, "for whom the reforming and civilizing influence of a good education is all important." If

this class of unfortunates be deprived of all chances of reformation by being driven away from the school at the very period of life when its restraining influences are most necessary, what may we naturally expect for them? We have solved the problem for the present but what about the future?

How many of the ignorant degraded wretches who gravitate unerringly to the police dock might in justice charge their shame and ruin to the very country for whose broken laws they are about to suffer?

Ignorance and crime are foster brothers.

In New York City corporal punishment was prohibited in 1870, and expulsion substituted. Three years later the superintendent in his report makes this statement:—"There is a larger class of boys whom our schools do not and cannot restrain, and whom therefore they cannot benefit but cannot send adrift to find their way inevitably to the reformatories and prisons after having inflicted on the community those injuries which it is the design of the school system to prevent."

To these especially the government owes an education and in order to bestow it the government is bound by every obligation of right and duty to govern them, and if its chosen officers expel them instead, they are responsible for their ruin. The writer once punished a boy for some flagrant act of insubordination. The father told him that he "did not believe in beating human flesh, he had never done it and he would not allow any one else to do so." To-day that boy is in prison serving out a sentence for an attempt to kill, and the victim was the father who objected so emphatically to "beating human flesh." Who is responsible for the ruin of that boy?

While the school codes are generally silent in regard to the right of teachers to inflict corporal punishment there are many judicial decisions in favor of this right.

Both by English and American law a parent may correct his child in a reasonable manner, and the teacher is *in loco parentis*. The following authorities substantiate this position:—2 Kent 205, 1 Blackstone 453, 9 Wendell's Reports 355, 27 Maine 280, 32 Vermont 123, 4 Gray 37.

The school law of Pennsylvania is stated thus:—"The right of the teacher to inflict such punishment is founded on the necessity of the case not upon statute. It is absolutely necessary that good order should be maintained in schools and that all proper rules and regulations and commands of the teacher should be strictly and promptly obeyed. Hence a necessity exists for sufficient power to enforce this duty and therefore it is held that the teacher may inflict such reasonable corporal punishment upon the pupil as the parent might inflict for a similar case."

Law of Indiana:—"A teacher while in the schoolroom is responsible for maintaining good order and he must be the judge to some extent of the degree and nature of the punishment required when his authority is set at defiance, and although he will be held amenable to the law for any abuse of this discretion, still he will not be held liable on the ground of excessive punishment unless the punishment be clearly excessive and would be held so in the judgment of reasonable men."

"A parent is justified in correcting his child by administering corporal punishment, and a teacher under whose care and instruction a parent has placed his child is equally justified in similar correction, but the correction in both cases must be moderate and given in a proper manner."

As to the offenses for which corporal punishment should be inflicted and the proper mode of inflicting it, the following

suggestions will probably be endorsed by all practical and experienced teachers:—

It should be reserved for the baser faults. A child should never be struck for the little faults and irregularities of school life. It should be a "*dernier ressort*," the last argument to which teachers are sometimes driven. When used at all it should be administered in strong doses to be effective. The system of slaps, pinches, etc., is wrong. That kind of treatment only tends to stir up anger and encourage evil.

The head should be sacred from all violence. Pulling hair, ears, slapping and thumping are all brutal and moreover dangerous.

It should be administered coolly and without temper, otherwise it loses the desired effect and degenerates into mere retaliation.

It should be remembered, however, that there exists in this age a "*lex non scripta*" which ranks the teacher in the inverse ratio to the frequency with which he wields the rod. It should not be forgotten either that he has legal rights and no inconsiderable legal authority, and he should deserve and demand the respect due to his office. GEO. J. MILLER.

Queens and Sunbury Institute.

The Teachers' Institute of Queens and Sunbury Counties was held at Gagetown, May 25th and 26th. Twenty-four members enrolled. Papers were read on the following subjects: School Libraries and Literature, by Miss E. McNaughton, A. B.; Physical Geography, by Mrs. M. A. Cox; Writing, by Miss M. K. Tibbits. The additional papers on Grammar and Order were not forthcoming, so the Institute took up these subjects for discussion. Several members of the Institute prepared notes on the subject of Order, and the discussion was very interesting. The Chief Superintendent of Education and Inspector Bridges were present at the Friday afternoon session and took part in the various discussions. The following officers were elected for the ensuing year: President, Mr. R. B. Wallace; Vice-President, Mrs. M. A. Cox; Secretary, Miss Tibbits. Additional members of executive: Mr. H. H. Bridges and Miss E. McNaughton.

A public meeting was held on Friday evening, which was largely attended. Addresses were made by the Chief Superintendent, Dr. Inch, Inspector Bridges, Rev. N. C. Hansen, Rev. A. Reul, Rev. A. C. Dennis. Miss Blanche Tibbits played a violin selection and Mr. Bridges sang a solo.

Mr. W. F. Vroom, late of the firm of Vroom Bros., who will graduate next month at the Teacher's College, New York, has been appointed instructor in wood-working in that institution, and will take charge of that department of manual training at the beginning of the next college year.—*St. Croix Courier*.

Inspector Bridges received many congratulations upon his very able alumni oration delivered at the U. N. B.

The Fur Seal and Its Home.

In the midst of Behring sea lies a small group of islands, to the rocky shores of which annually resort millions of highly organized animals to breed and shed their hair and fur. The Pribilof islands are only sixty square miles in area, yet they support more available wealth than all the rest of the five hundred thousand of Alaska. The principal islands are St. Paul and St. George, the former of which is the great seal ground of the northern hemisphere. This little island is visited yearly by over five million fur seals, while St. George lying only twenty-seven miles to the southeast, is the resort of about a quarter of a million. The other two, Otter and Walrus, are visited by seals in much smaller numbers.

On these islands the fur seals can come from the cool waters of the Behring sea and rest, without inconvenience or annoyance of sunlight, which rarely breaks through the fogbanks peculiar to this latitude. So uncomfortable are these animals made by heat that a few hours of sunshine, with the temperature as low as fifty degrees in the shade, will drive nearly all the non-breeding seals back to the water, and cause those that remain to pant, and resort to various movements of their flippers in order to cool themselves. But the humid fogs quickly regain their ground, and with them the seals also.

With the clearing away of the ice and snow, early in May, come the first seals of the season. All the early animals are full grown males which anticipate the coming of the females by about six weeks. They take their positions on the rookeries—usually an area about ten feet—and will not leave unless driven away by superior force. During the three or four months they are there they take no food nor water, though continually active. In this respect they differ from bears and similar hibernating animals. These males fight desperately with each other, even to death, for their position on the rookeries. They are from six to seven feet in length and weigh from three to five hundred pounds. The females are much smaller, being about four feet long, and weighing an average of eighty pounds.

During June and July the females appear by the thousands, and acres of ground are packed with them as closely as they can lie. The young are born shortly after the arrival of the females. These young seals are exceedingly frolicsome at sea, running races in the surf, chasing each other, and whirling in swift circles. Their first attempts to swim are laughably awkward, but they continue to flounder, flop, and paddle until by the time they are ready to leave in October or November, they are expert swimmers.

The capturing, driving, killing, and skinning of the fur seals is done entirely by the people of the islands, who alone are, by the lease to the commercial company, permitted to participate in the labor and share in the reward. The number of seals taken annually is limited to one hundred thousand young males not under one year of age, and policy prevents the killing of any males at or over six. When the seals are ready for killing, fifteen or twenty men go to the breeding ground armed with long heavy clubs of hard wood. They drive out to one side fifty or a hundred seals from the body of the drove, surround them, causing the seals to huddle up in a writhing struggling heap, and strike them lifeless by well directed blows upon the head. The skins are then taken off, and cured by lying in salt for a week or two. The hide in a natural condition differs much in appearance from the dressed skin, for in the process of preparation for ladies' and gentlemen's use the over hair is plucked out, and the fine, close, soft, elastic fur is dyed to a rich brown, being originally a light brownish-yellow or ochre.

The arbitration to settle the dispute between England and the United States over the seal fisheries in Behring sea is being conducted very ably by Sir Charles Russell for Britain, and by Messrs. Carter and Coudert for the United States. The exclusive control of Behring sea by the United States and any treaty rights to the seal fisheries secured by the purchase of 1867, are found to be altogether untenable. On the other hand it would appear that the seals do become United States property by reason of the fact that their habit for eight months of the year is on United States property, that they make excursions into the neighbouring seas to obtain food and with the intention of returning and that they can be identified. For example, though bees wander from their hives in search of food, they do not cease to become the property of the owner of the hive.

At all events it is perfectly clear that if these seals are not to become extinct the nations must agree to refrain from killing them elsewhere than on the Pribilof islands which belong exclusively to the United States.

A Lesson on Oxygen.

A great deal has been written of late years in regard to teaching elementary science in the common schools, but comparatively few schools have as yet given science a regular period of the daily programme. In the Model School department of the California, Pa., Normal School, twenty lessons in the various lines of elementary science are given to each grade every month.

The following description, written by a ten-year-old boy, tells what was done in a recent lesson. The children helped in the experiment, there not being enough material for all to do it:

"We filled four bottles with water and put them in a trough. Then we put an alcohol lamp under a glass flask with potash and black oxide in it. And there was a tube fastened to the flask. We took one of the bottles and turn-

ed it upside down in the trough, and took the tube and put it in the bottle, and the gas from the potash and black oxide made the water go out of the bottle. We did that with all the bottles. Then we took a stick and lit it and blew out the flame, so as to leave just the sparks on the stick. We then put it in one of the bottles and it made a flame. Next, we took some charcoal and put it on a wire and we lit it, blew out the flame and put it in another bottle and it all flew into sparks. Then we took a piece of sulphur and put it in an earthen cup, lit it so as to make a little flame that you could hardly see, and put it in another bottle and it blazed up bright. Last, we put a piece of a match on an iron wire, lit it, and put it in the last bottle, and the wire was melted, because there was a little ball on the end of the wire after we took it out of the bottle. The name of this gas is oxygen."

Here are some of the conclusions given by the pupils in the oral discussion which followed the experiment:

"Oxygen supports a fire. (Here the term combustion was given and fixed with one presentation, because they needed the term just then.) The air contains oxygen. When we put the "blower" on our coal fires, it causes more air to go through the hot coals, and gives the fire more oxygen, making it hotter. This is why the blacksmith uses a bellows on his fire. We breathe to get oxygen out of the air. When a great many have to breathe the same air, it loses all its oxygen and becomes bad. We should have a plentiful supply of pure air in our rooms, etc."

This is an infinitely better way of teaching hygiene than containing the facts from a text-book, even if the experiments were performed afterwards in proof.
—School Journal.

A teacher who has left the ranks says: "Enclosed find \$1.00 in payment for my subscription to EDUCATIONAL REVIEW. If I were a teacher I could not do without your paper, but many teachers do not care what others in the same field are doing, nor do they seem to care much about their own advancement professionally."

Of the total population of Canada in 1891, the number of native born Canadians was 4,155,004, and those born beyond the bounds of the dominion, Canadians by adoption, numbered 645,507.

Recent reports from the antarctic regions state that an iceberg fifty miles long was observed and that others from fifteen to twenty miles long were common.

June.

June, that thrills the listening earth—
Smiling, greets the roses' birth:
Sang farewell to sorrow.
Lent the woods a richer hue,
Lent the skies a tenderer blue,
Laughing lightly, woke me, too!
Bade me glad good-morrow.

—Agnes Gerard.

QUESTION DEPARTMENT.

"M." Shelburne Co.—1. "Premium on normal school training equal to one grade in class of license." Does this refer to those who have already passed examination? For instance, two teachers obtained B license two years ago; one teacher attended the normal school, the other did not. Is the former to receive what has been considered as "B" provincial grant, while the latter receives only the portion allotted to the holders of a "C" license obtained at the normal school?

ANS.—All licenses of the same grade obtained in Nova Scotia in the past entitle to the same privileges whether supplemented by normal school training or not. The normal school diploma of the past brings to its holder no direct pecuniary advantage. Hereafter, those who pass only the grading examination will receive a license one grade lower. For example, a candidate passing the government examination for grade "B" will receive only a "C" license unless he also passes the professional examination of the normal school, in which case he will receive a "B" license without further examination. If a candidate receives a grade "C" at the government examination, there are two ways in which he can proceed to take a "C" license. 1. He may go to the normal school and get a professional training, or, 2. He may go to a county academy and pass for grade "B," and thus get a "C" license. Therefore, a normal school training may be regarded as equal to one grade in scholastic attainment.

A SUBSCRIBER, Yarmouth.—Will you kindly give in the next issue of the REVIEW a set of questions on drawing similar to what will be required of candidates for grade "C." By so doing you will oblige.

1. Describe the construction and uses of set-and-T-squares.
2. Construct a diagonal scale of $\frac{3}{4}$ " to 1 yard to measure yards, feet and inches.
3. State the angles made by the hands of a clock at 1, 2.30 and 6.30.
4. Construct a triangle the altitude = $1\frac{1}{2}$ in., the base angles = 30° and 45° .
5. Construct an equilateral triangle, the altitude AB ($2\frac{1}{4}$ " being given.
6. In the triangle ABC let BD be the perpendicular on AC. Given AB = $6\frac{1}{2}$ ", AC = $4\frac{1}{2}$ " and BC = 3", How long is CD?
7. Explain the terms "overlap," "axis of symmetry," "trefoil," "elevation."
8. Draw from memory a rosebud with two or three leaves connected with it.
9. Give an illustration of the acanthus as conventionalized in Greek art.
10. Draw an original design based upon the leaf of the ordinary blue violet.
11. Draw an outline figure of any ordinary domestic animal.
12. Make a drawing of your own hand half the natural size.

Please solve example 4, V., page 104, Kirkland & Scott's arithmetic; also example 24, page 153 of the same

1. The product of $7\frac{1}{2}$ by 8 is $59\frac{1}{2}$, which, taken from 60, leaves $\frac{1}{2}$. Subtract $\frac{1}{2}$ from 60 and there remains $59\frac{1}{2}$, which contains $7\frac{1}{2}$ exactly 8 times.

2. 7 men and 5 women do $\frac{1}{4}$ in 1 day,

3 " " 8 " " " $\frac{1}{11}$ " "

Multiply by 3 and 7.

We have 21 men and 15 women do $\frac{1}{4}$ in 1 day,

21 " " 56 " " $\frac{1}{11}$ " "

Therefore, 41 " " $\frac{1}{11} - \frac{1}{4}$ " "

41 " " $\frac{1}{11}$ " "

1 woman does $\frac{1}{11}$ " "

Therefore 7 men do $\frac{1}{4} - \frac{1}{11} = \frac{1}{44}$ " "

1 man does $\frac{1}{44}$ " "

1 man and 1 woman do $\frac{1}{44} + \frac{1}{11}$ " "

1 " " 1 " " $\frac{1}{11}$ " "

or 1 " " 1 " " all in $16\frac{2}{3}$ days.

PAUL FORD, (C. B.)—Please solve (1) Ex. 2, Section II., page 216, Hamblin Smith's arithmetic; (2) Ex. 339, page 292; 3; (3) On May 21st a broker purchased for me \$12,000 6 per cent bonds at $104\frac{1}{2}$, the interest on these bonds payable on 1st February and August. After receiving interest on August 1st, the broker sold bonds for me at $103\frac{1}{2}$, charging $\frac{1}{4}$ per cent for selling. What did the bonds cost me, the brokerage being $\frac{1}{4}$ on the market value? Did I gain or lose, and how much, money being worth 5 per cent?

(4) Draw a chord cutting two concentric circles so that the part within the smaller circle may be half the chord.

(5) If from any point in an equilateral triangle perpendiculars fall on the sides, prove their sum equal to the perpendicular from one of angular points on opposite side.

(6) Analyze: (a) Tell her that wastes her time, that now she knows, when I resemble her to thee, how sweet and fair she seems to be.

(b) It is sweet to visit the silent wood.

1. If payment be made at end of 6 months, \$90 is accepted for \$100 worth of goods. If at the end of 3 months, that is 3 months before the end of 6 months, the present worth of \$90 for 3 months should be accepted. If at the end of 9 months, that is 3 months after the end of 6 months, the amount of \$90 for 3 months should be accepted.

Present worth of \$90 for 3 months at 5% = \$88 $\frac{1}{2}$

Amount " " " " = 91 $\frac{1}{2}$

Therefore discount in first case is $100 - 88\frac{1}{2} = 11\frac{1}{2}$

And " second " $100 - 91\frac{1}{2} = 8\frac{1}{2}$

2. See EDUCATIONAL REVIEW for February, 1893.

3. Cost of a \$100 bond = $104\frac{1}{2} + \frac{1}{4} = \$105\frac{1}{4}$.

Cost of \$12,000 bonds = $105\frac{1}{4} \times 120 = \12405 .

Therefore he received \$210 less than he gave for the bonds. But half-yearly dividend = 3% of \$12000 = \$360. Apparent gain is $\$360 - \$210 = \$150$. Now he invested \$12615 from May 21st to August 1st.

On this interest = $\frac{\$12615 \times 72 \times 5}{365 \times 100} = \124.42 .

Therefore his actual gain is $\$150 - \$124.42 = \$25.58$.

4. From A, the common centre, draw a radius ABC cutting the smaller circle in B. Produce AC

to D, making $CD=OB$. On BD describe a semi-circle cutting circumference of larger circle in E. Join EB and produce it, letting it cut smaller circle in F and larger in G. Then will EG be the required chord. From A let fall a perpendicular AH on chord EG. Then triangles CEB and BHA are equal, therefore $EB=BH$. But $HB=HF$, and $HE=HG$ (III. 3), therefore BF = half of EG.

5. Let ABC be the equilateral triangle and P the given point. Let PD, PE and PF be the perpendiculars to BC, AC and AB respectively, and AM the perpendicular from point A. Through P draw GH parallel to BC and cutting AM in N. Then AGH is an equilateral triangle. NM is equal to PD. From G draw GL perpendicular to AC. Produce EP to K, and from G let fall GK perpendicular to EK. Then triangles FGP and GKP are equal, therefore $PF=PK$. Therefore PF and $PE=KE=GL=AN$. Therefore sum of PD, PE and $PF=AM$.

6. A prin. Tell her.

1a¹ That wastes her time, adj. clause qual. her.

2a¹ That now she knows, noun clause direct obj. of tell.

1a² When I resemble her to thee, adv. cl. time, modifies knows.

2a² How sweet and fair she seems to be, noun cl. obj. of knows.

(b) It is sweet to visit the silent wood.

"To visit the silent wood" is appositional enlargement of subject "it." See prescribed text-book of English grammar, subject page 79 b.

"Teacher." See answer to Paul Ford, No. 1.

R. B. O'B.—Please solve example 23, page 181, and examples 16 and 17, page 188, Todhunter's algebra.

1. Let x denote the number of men in one side of solid square.

Then $4x$ equals the number of men in one side of hollow square.

If the hollow square were solid, the number of men in it would be $(4x)^2$; therefore the whole number in the hollow square is $(4x)^2 - (4x-8)^2$.

Thus $(4x)^2 - (4x-8)^2 = 7x^2$.

2. Put the equation in the form $\frac{x-a}{a} = \frac{b-y}{b}$.

$\frac{x^2-a^2}{a} = \frac{b^2-y^2}{b}$ The latter is $\frac{(x-a)(x+a)}{b} = \frac{b^2-y^2}{b}$

Therefore either $b-y=0$, or $\frac{x+a}{b} = \frac{b+y}{b}$ Taking the former, we have $y=b$, and then from the first equation $x=a$. Taking the latter, we have $y=x+a-b$; substitute in the first equation, etc.

3. From first equation $y=2b-\frac{bx}{a}$ Substitute in second equation, etc.

SCHOOL AND COLLEGE.

The following students of the University Extension Classes in St. John, N. B., have successfully passed examination: In electricity, Prof. Duff lecturer—Miss Fannie Henderson, Miss G. A. MacIntyre and Miss Grace Murphy, and Messrs. F. R. Taylor and F. J. Mahon. In chemistry, Mr. A. E. McIntyre lecturer—Mr. C. H. Doig. In Canadian history, Mr. James Hannay lecturer—Miss Mabel Fairweather. In hygiene, Dr. Walker and Mr. A. E. McIntyre lecturers—Mrs. Alfred Morrissey, Miss G. A. McIntyre and Mr. W. Dacre Walker. In English literature, subject "Tennyson," Prof. Stockley lecturer—Misses Eleanor Robinson, M. B. Carr, M. L. Fairweather, Mary E. Hayes, Fannie E. Henderson, Lillie Herrington and Annie L. Matthews.

The new school house in process of construction at Wolfville is to be heated and ventilated by the Fuller & Warren Co. system of heating and ventilation which is in extensive use in the United States. The Robb Engineering Co. of Amherst are introducing the system into Canada.—*Kentville Advertiser*.

Principal Fraser, of the Halifax School for the Blind has conceived the admirable plan of sending teachers to the homes of those blind persons throughout the provinces who cannot avail themselves of the advantages of the school. This is a humane movement, and deserves that support that philanthropic people are already giving it.

Mr. Robt. Wilson, teacher at Lewisville, Westmorland Co., has, by means of a public school entertainment, purchased a copy of Webster's International Dictionary. The pupils find it the greatest aid of any in the school. A ball frame was procured by the same means. The entertainment was on the evening of the 19th ult. There was a very interesting programme carried out with complete success.

A correspondent for Maitland, N. S. sends us the following items:—The school has four departments and about 160 pupils. In the competition for work to send to the Chicago Fair, they carried off first honors for their district in the Fourth Grade. There are pupils doing the first and second year's work of the High School course. The school is so popular that it has no trouble in getting from the section special appliances for High School work.

The Provincial Normal School at Truro has a class of sixteen candidates for Class A. They represent all the provincial colleges. During the summer vacation some alterations will be made in the building to accommodate the manual training department.

There are over 400 applications for admission to the departmental examinations to be held at the various stations throughout New Brunswick, July 4th, next. A good supply of teachers for the future should be assured.

Profs. Dixon, Strong and Duff will spend the summer vacation in Europe.

The Nova Scotia Normal School is giving as an optional for some of its science work a ten days' course in butter making at the Provincial School of Agriculture. A very practical subject for oral lessons in country schools.

The Owens art collection has been removed to Mount Allison University. Prof. Hammond has been appointed art instructor.

Dartmouth Schools—That Principal Miller has won the confidence of the Commissioners is evident from the readiness with which they adopt his suggestions. They are about to employ a male teacher to assist him. They will also close the colored school and grade the pupils into the other schools. They have recently opened two new departments.

Prof. Mack of Sackville Academy, goes to Raleigh, N. C., greatly to the regret of all.

Hon. James Mitchell and Dr. Murray McLaren were elected alumni representatives to the Senate of the University of N. B.

Miss Bertha W. Graham, teacher at Gleason Road, Charlotte Co., has procured a fine flag for her school-house. There is already a small library there.

Miss Annie Hyslop, teacher at Dickie Settlement, Charlotte Co., has with the assistance of pupils and parents procured the first school flag in the parish of St. David. Who will be next?

Miss Edna Daggett, teacher at Chocolate Cove, Deer Island, has by means of a school concert purchased a school flag. There are few schools now on the Island unprovided with flags. This perhaps is due to being so close to the border.

Miss Darling, teacher at Kingston, Kings Co., has procured a flag for her school. Flags in Kings Co. are few or the REVIEW does not get notice of them.

It is reported that some of our best St. John teachers will vacate their positions, the cause of which will appear later. Good teachers are in constant demand.

It is reported that C. H. Harrison, A. B., of Chatham, will succeed Inspector Steeves as principal of the Woodstock schools.

Inspector Carter will complete his work in St. John Co. and on Deer Island in June.

The many friends of Miss Lottie Cliff, formerly of York street school, Fredericton, who has been in Boston for some weeks under the treatment of a specialist for eye trouble, will regret to learn that she has lost her eyesight entirely. — *Gleaner*.

Principal Calkin of the Normal school, Truro, states that 4,680 students have attended the school since its opening in 1856.

Dr. Bailey will be engaged this summer as usual on Government Geological survey.

The Chancellor of the University announced at the exercises of the University of N. B. that nearly all the graduates of the engineering department of this year have secured employment.

In the McGill University examinations for this year the following students from the Girl's High School, St. John, won an honorable record for themselves: *Third year*—Agnes L. Warner, second rank honors in natural science, first rank in

general standing, honorable mention for collection of plants, prize in mental philosophy. *Second year*—Katherine H. Travis, first rank general standing, prize in French, prize in Latin, prize in botany, standing first in each of the above subjects, and Donald prize for physical culture. Susan E. Cameron—prize in logic, high standing in English Literature. M. McIntosh, Prince of Wales college, P. E. I.: *Second year*—won an exhibition, value \$125, tenable for one year.

BOOK REVIEWS.

The first volume of the revised edition of the Pathfinders has just been published under the title of Health Reader No. 1 by T. C. Allen & Co. of Halifax. It is prescribed for the teaching of Physiology, Hygiene and Temperance in the common schools of Nova Scotia, and for use as a supplementary Reader in those grades in which it will be suitable for that purpose.

JOHN AMOS COMENIUS, his life and educational works, by S. S. Laurie, A.M., F.R.S.E.; pp. 272, cloth; price \$1.00. C. W. Bardeen, publishers, Syracuse, N. Y. This book, the author claims, is the most complete account of Comenius that exists in any language. It is a valuable work, the author having gone through four volumes of didactic writings of Comenius, and the result is a compendium of great importance to the students of the history and practice of education.

LE CURÉ DE TOURS, par Honoré de Balzac; edited with notes by C. R. Carter, assistant master, Wellington College, England; pp. 95; price 25 cents. This interesting story is published by D. C. Heath & Co., Boston, in their *Modern Language Series*.

ELEMENTARY ARITHMETIC, by J. W. Cook and Miss N. Cropsey; 304 pages; 7x5 in.; Silver, Burdett & Co., Boston. In this volume we have the results of several years' experience in teaching arithmetic by the most approved and rational methods. Pupils make their first acquaintance with numbers through objects which are gradually dropped as the simple processes become familiar and the pupil becomes able to grasp the abstract. This volume will be invaluable to teachers who have not attended a Normal School. The problems are thoroughly practical, but too simple to give that mental drill which is possible to the cleverer pupils who take a course from our elementary arithmetic.

THE ADVANCED ARITHMETIC, (350 pages) by the same authors, has some good points. It makes a beginning in generalizing the elementary processes of addition, etc. There are too many words for the number of ideas and the work is much too simple for an advanced arithmetic, not going deeply enough into any part of the subject to give the desired mental drill and scarcely enough for the ordinary practical purposes of life.

Educational Articles in the Magazines.

In the June *Century* there is an interesting article on College Athletics, and the writer, Walter Camp, concludes that "as long as college athletics build up the physique of our youth, so long as they teach self-control, temperance and courage, so long as money considerations and dishonesty do not enter into them, they will form a valuable feature of college life."

An article of great interest to teachers and pupils is published in *Littell's Living Age* for June, entitled "Our Arctic Heroes."