

THE EDUCATIONAL REVIEW.

FOR THE ATLANTIC PROVINCES OF CANADA.

VOL. XI. No. 5.

ST. JOHN, N. B., NOVEMBER, 1897.

WHOLE NUMBER, 125

A Compendious History

Of the Northern Part
of the Province of

NEW BRUNSWICK

AND OF THE DISTRICT OF GASPE
IN LOWER CANADA

A re-print of the edition printed in 1832.

BY ROBERT COONEY.

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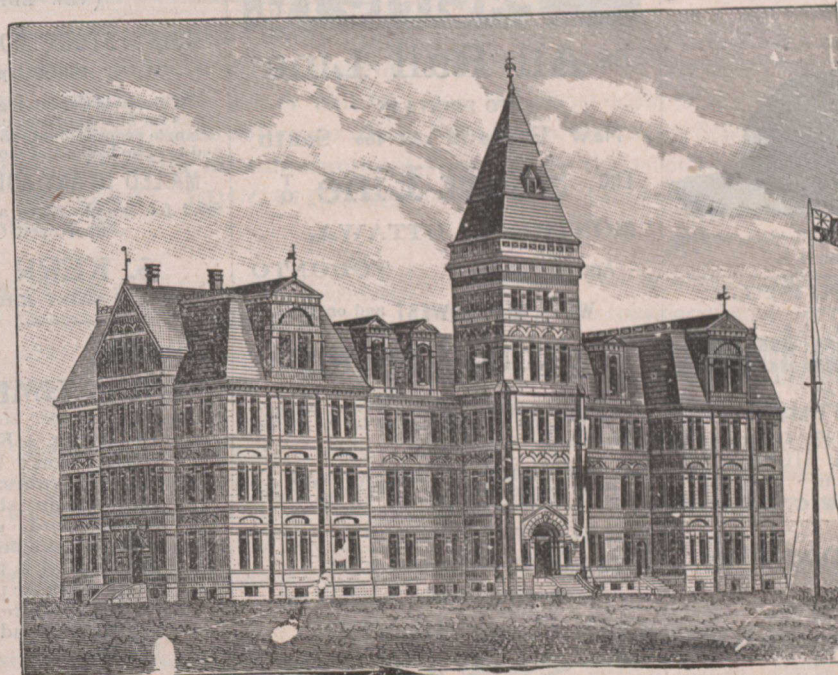
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Sept. 3rd, 1897.

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September - - 8th,
1897.

FACULTY OF MEDICINE.

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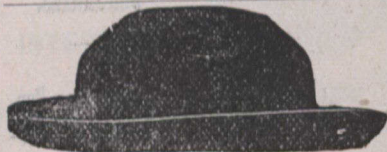
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The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

PUBLISHED MONTHLY.

ST. JOHN, N. B., NOVEMBER, 1897.

\$1.00 PER YEAR

G. U. HAY,
Editor for New Brunswick.

A. McKAY,
Editor for Nova Scotia.

J. D. SEAMAN,
Editor for P. E. Island

THE EDUCATIONAL REVIEW.

PRINTED BY BARNES & Co., St. John, N. B., who are authorized to receive subscriptions and make contracts for advertising.

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Subscribers should promptly notify the REVIEW of a change of address, giving the old as well as the new address. The paper will be continued to all subscribers until notice to discontinue is received. Hereafter all communications should be addressed: EDUCATIONAL REVIEW, St. John, N. B.

MR. W. T. KENNEDY has retired from the business management of the REVIEW in Nova Scotia, which he has held since June, 1891. By his energy and careful management he has assisted materially in maintaining the usefulness of this journal in that province. It has always been a great pleasure to work with Mr. Kennedy, and it is only at his urgent solicitation, with the knowledge that the exacting duties of principal of an important academy compels him to retire, that his co-workers on the REVIEW agree to sever their business relations with him.

AN interesting article on "Cooking in the Public Schools" has reached us, too late for this number. It will appear in December with other matter unavoidably crowded out this month.

WE would like to impress upon all our subscribers the importance of promptly advising us of a change of address or of their desire to discontinue the paper if it is no longer required. This entails only the writing of a postal card.

In asking for a change of address we require the *old* as well as the *new* address. This will save the trouble of looking perhaps over hundreds of names—not a very profitable employment.

To those subscribers in arrears who have met requests for payment with promptness, and have sent the most kindly assurances of their continued support and appreciation of THE REVIEW, our hearty acknowledgments are returned.

SUBSCRIBERS sometimes complain that they do not receive the REVIEW regularly. This should not be the case. It is published about the tenth of each month. If it is not received within a week after that date, write to the office.

ACCORDING to the last issue of the *Journal of Education*, the official organ of the Education Department of Nova Scotia, the Caxton School Series Charts are neither prescribed for the schools nor recommended to teachers or trustees of that province.

THERE are two articles in this number which we commend to the consideration of our readers: one is on the slow but sure growth of art in one of our cities; the other offers some practical suggestions on the study of the history of art. While it may be said that there are many in our midst who appreciate art, is it not also true that little or no systematic effort is being put forth in the direction of art education? The poet's warning of the length of art and the flight of time advises us to begin at once, and Mrs. Ganong tells us in a very excellent way how to begin.

WHILE the Caxton School Charts have many excellent features, it is claimed that the price at which they are sold—\$37.50—is out of proportion to their market value.

Mr. J. M. Harper, in the course of a very thoughtful address before the Quebec Protestant Teachers' Association, very strongly emphasized the necessity of enlarging the powers of the Inspectors, and adding more superintendence to their duties. If this is interpreted correctly, it means, in addition to the advisory powers now conferred upon them, mandatory powers as well. It means in other words that Inspectors should not only be empowered to pass upon conditions as set before them, but have larger powers to insist that improved and progressive conditions should exist and be provided for by the school sections.

Considering the generous state aid given by all the Provinces of the Dominion, very little state pressure beyond that of persuasion is exercised. Strong individuality on the part of school officers may stimulate and influence the work of the schools, but the standard of the best should be the standard of all, and there will be abundance of opportunity to improve even upon that.

It should not be, as has been permitted, that the state aid should simply be an excuse for lack of exertion on the part of the ratepayer, who is prone to regard the drawing of it his only responsibility in connection therewith.

They have done well in Australia, where the state entirely supports the schools, and takes full direction of their management and control.

Revival of Art in Nova Scotia.

In 1887 the late Mrs. J. F. Kenny, Mrs. Leonowens, and a few others interested in art, founded the Victoria School of Art and Design as a memorial of the Queen's Jubilee. It was partially endowed—the sum of fifteen thousand dollars having been raised, by subscription, by public lectures, and by a monster "World's Fair."

Previous to 1887 art was fostered in a desultory manner by private individuals. Mr. Forshaw Day taught private classes for many years. He had also a large class in the Technological School until that school became defunct, or until he was called to a professorship in the Military College at Kingston. He was succeeded by Mr. George Harvey, who, after having made for himself a high reputation as an artist, was appointed the first principal of the Victoria School of Art and Design.

For the first year there were more pupils than Mr. Harvey and his assistants were able to instruct to advantage. After the novelty had ceased, the school gradually dwindled down to small dimensions. The classes in mechanical and architectural drawing, however, showed a steady growth. The teaching was not without results, though the school was small. Several students began to look forward to art as a profession.

Two years ago Miss Katherine N. Evans, a graduate of the Pennsylvania Art Museum, was appointed principal. The school is now flourishing under her management. The students of the Halifax Ladies' College receive art instruction from Miss Evans in their own studio, and Dalhousie College acknowledges the work of the art school as part of its science course. Several times since the school was first opened there were special classes for teachers.

There are now three additional studios in Halifax. Mr. Forshaw Day, one of the best artists of the Dominion, is again in Halifax. Mrs. Maclean, after three years' training in Germany and France, has recently opened a studio, making a specialty of portrait painting. Miss Edith Smith, a former pupil of the Art School, teaches advanced pupils.

The results of the efforts put forth by the Art School for the last ten years are now beginning to be apparent. Interest in the fine arts is evidently increasing. It is not so many years since drawing and painting in the ladies' colleges consisted merely in copying from the flat. Now no student would think of wasting time on such work, much less of exhibiting any work not drawn from the object or the living model.

The teachers of our schools are beginning to learn that drawing, to be educative, must teach the child to see the characteristic lines of the object which he studies, and to reproduce them on paper.

Third Class Licenses.

There is a very strong feeling on the part of teachers that the short term third class licenses in New Brunswick should not be renewed, as it is understood is being done on the recommendation of some of the Inspectors. These licenses are granted for three years on attendance and half time at the Normal School or until Christmas, and may be renewed for another year upon the recommendation of the Inspector.

Where the supply of teachers exceeds the demand, as is generally the case, the full term teachers feel that they are at a disadvantage as compared with those of shorter time training, who by reason of this and less scholastic attainments can afford to teach at a lower rate of salary. The injustice becomes more apparent from the fact that many indifferent and parsimonious school boards regard the mere presence of a teacher in the school room as the extent of their obligation to the district, and so long as they are cheap, they take no further heed to their qualifications.

It is satisfactory to note that a large majority of the short term teachers do not wait for the expiration of their term before gaining a higher class of license, and this is a course that may be fairly demanded of

them all. No teacher should remain contented with the lowest class of license for longer than three years.

The Inspectors may justly urge on their own part as to renewals that it is not for them to take into consideration the question of abstract justice as regards others, but to carry out the regulation, and if the teacher has met with the requisite degree of success, they may consider they have no option but to recommend renewal by the regulation. This is as it may be, but it would be better for all if the time were strictly limited to three years, as the prospect of renewal dulls ambition on the part of some. It might be well for the Board of Education to consider the advisability of doing away with the short attendance at the Normal School altogether, especially in view of the tendency on all sides to increase the Normal School attendance. There would still be third class teachers, but they would at least have as long a training as those holding higher classes of license, and surely this is desirable.

TALKS WITH TEACHERS.

I question the good taste which prompts the publication of certificates of special excellence received from the Chief Superintendent of N. B. Though these letters are somewhat rare, as they should be if discrimination is used, it does not by any means follow that they are held only by those who have permitted them to be published. They should constitute the most valuable kind of a certificate to be used professionally, and school boards cannot do better than give them due recognition; but to parade them in print seems rather a cheap mode of advertisement. It is not considered professional among doctors and lawyers to parade their triumphs professionally, and I think the same rule should hold among teachers.

I was passing through a county district a few days ago and was struck with the efforts of the people of the locality to make the road-sides attractive. They had been ploughed, harrowed and seeded, and trees had been planted on each side. In a very short time how proud these people will be of their work, and future generations will remember with gratitude the thoughtfulness of these people.

There is a hint in all this for the schools. Many school grounds have already been filled with trees. What is to prevent teachers and pupils going out on the road-sides, accompanied by all or as many people of the district as can be interested, and planting them with trees and otherwise rendering them pleasant to look upon. Have you ever driven along a stretch of road which was shaded on a hot day? You cannot do

so without a feeling of gratitude toward those whose work it was. Let the teachers think over this plan for next Arbor Day.

Another road-side feature that has impressed me is the provision made in some localities for watering troughs for animals and the total absence of them in others.

Some road commissioners have an impression that road money is not to be spent for watering privileges, and others more wisely consider them as necessary as good roads. Who will gainsay their advantages from a humanitarian standpoint? We all admonish our pupils against cruelty to animals. What is more cruel than for horses to travel for hours without a chance to drink? The provision of good watering troughs would not only bring down blessings from horses if they could talk, but from men and women, especially bicyclists, of whom the number is increasing. Would it not be a good idea for each school to equip or take charge of at least one good watering trough? Think over it, and let us take this much share in the movement for good roads.

At the last session of the Charlotte County Teachers' Institute the president drew the attention of the teachers to the advisability of preserving the old school registers and bring the same to the notice of the school secretaries. He remarked upon their value from a historical standpoint. Dr. MacKay, who was present, told what was being done in this respect in Nova Scotia, and from a school register which has been sent me from there I cannot but observe how much more careful they are than we in New Brunswick are.

Teachers are not only strictly enjoined to fill them in accurately, but the inspector has to report as well upon their preservation by the school sections. Not only the names of the pupils are enrolled, but also those of their fathers or guardians. The older these records become, the more valuable they are. Who would not like to look at the register kept when he attended school?

Let me ask the teachers, then, to use their influence with the secretaries to collect all the old registers in the districts, and if possible have them bound. I know of no locality, except the City of St. John, where the school registers have been bound and preserved since the beginning of the school law,—even some of our smaller towns being very lax in this respect.

Please remind your secretary, if he has not already done so, to send the inspector a copy of the minutes of the last school meeting in New Brunswick.

CORRESPONDENCE.

A Correction.

EDITOR EDUCATIONAL REVIEW :

Dear Sir,—In looking over the October number of your very excellent periodical I find at page 79, a proof, or shall I say, a so-called proof, of an interesting geometrical theorem, which, it seems to me, is very unsatisfactory. I beg to assure you that my criticism of it is not prompted by any spirit of carping or fault-finding; nor have I any reference whatever to a mistake in the demonstration which is obviously inadvertent, namely, the occurrence of "less" in the last line but three where *greater* was, no doubt, intended to be used.

1st. The proposition as given is not universally true, for if the sides containing the vertical angle be equal, then the line bisecting the base is *not* greater than the bisector of the angle, because the two are exactly coincident.

2nd. My chief objection, however, is that the geometrically unwarrantable assumption is made that the line bisecting the base meets the base at some point, to the right or left, as the case may be, of the point at which the bisector meets D without first establishing the right or left directions of the former point from the latter.

A similar assumption is made respecting the perpendicular drawn from the vertex to the base.

I subjoin the following proof which I think will be found to conform with the principles and logic of Geometry :

Let ABC be a triangle, and let $AC > AB$,

From the vertical angle A draw the bisector

AD , meeting the base in D . (I, 9)

From AC cut off $AE = AB$ (I, 3)

Then triangle $ABD =$ triangle AED (I, 4)

$\therefore BD = DE$

In triangle DEC the angle $DEC > ADE$ or $> ADB$. (I, 16)

Angle $ECD < ADB$ (I, 16)

\therefore Still less is angle ECD than angle CED .

$\therefore DC > DE$ (I 19)

or $DC > DB$

Hence the middle point of the base lies between D and C

Let it be at F .

Join AF .

Angle $ADF > ADE$ or $> ADB$ (ax.)

But angle $ADB > AFD$ (I, 16.)

Much greater then is angle ADF than AFD

$\therefore AF$ is greater than AD (I, 19.) Q. E. D.

M.A.C.

A Three Years' College Course.

TO THE EDITOR OF THE EDUCATIONAL REVIEW :

An idea is prevalent that it is the intention of the Senate of the University of N. B. to shorten the Arts Course to three years, and there has been some discussion over the matter. Whatever may be urged against it there is also something to be said in its favor, among other things that the president of one of the largest and most influential seats of learning in the United States has come out in favor of a three years' course. In a young country where the field for specialists is limited, four years seems a long time and a large slice of a man's years of usefulness to devote to an Arts Course, and if it be possible to limit the time consistently with thoroughness it is most desirable that it should be done, especially from the standpoint of the young man or woman who has to work his or her own way.

The colleges having a four years' course cease work in the spring and do not resume until autumn, taking four months or more summer vacation. Why should this be done? Are the labors of students or professors more arduous than those say of the schools? If not, why should they require a longer rest? With the students of the leisure classes these long recesses may be popular, but with those of less means, and having less time, they are the reverse. Some studying and reading may be done in the time, but in the case of most of the students and professors they pass their time as other people, having nothing particular to do. It is true that it affords opportunity to some to earn a little toward expenses, but the field for such is curtailed save in the direction of book agencies. There is no chance now open for teaching, and take it all in all the average student would prefer attendance at college during much of the long vacation if it would insure graduation one year earlier. After all the value of an Arts degree does not so much depend upon time as application. If length of time in attendance at lectures is to be the criterion, by shortening the vacations as much time can be put in in three years as with the existing ones in four years.

STUDENT.

Dr. Abernethy was very much annoyed by an old lady who was always sure to accost him in the street for the purpose of telling him her ailments. Once she met him when he was in a great hurry. "Ah! I see you are very feeble," said the doctor. "Shut your eyes and show me your tongue." She obeyed, and the doctor, moving off, left her standing there for some time in this ridiculous position, to the infinite amusement of all who witnessed the funny scene.

For the REVIEW.] NATURE LESSONS.

Agaricus (Amanita) Vernus, Bull.

(THE "DEADLY" OR "SPRING" AMANITA).



TEACHER. I have drawn here roughly, and I am sorry to say not very accurately, for I was never made to draw until I had to teach, seven stages in the growth of mushrooms and toadstools generally. The particular species whose life history I have endeavored to picture is one you should know in order to avoid it and its relatives. You have collected very many different kinds of these gill-caps, mushrooms, or toadstools, this fall; but not this species exactly, although we have got another next brother to it in considerable abundance. I mean the Fly-Poison Amanita, the top of whose cap is tinged a beautiful yellow or orange generally, although its spores are pure white like those of the one figured. And the ragged patches sticking on its cap are very conspicuous. But the Deadly Amanita appears in early summer, while the Fly-Poison Amanita is to be found abundantly in the fall only. The Deadly Amanita is also nearly white, and the scales as a rule are not nearly so conspicuous as I have figured them above. Sometimes they nearly altogether fall off; and the reason why I figured so many of them on this specimen, was rather

to call your attention to the fact that they are there at first, and you should look very carefully to see if any specimen which appears to have no such scales on them, have not at least a few to show that they were there. But some of you can draw just about as well as I can, if you try. Now tell me how you would change my picture of stage seven to make it the Fly-Poison Amanita?

SCHOLAR. I would color the skin of the cap under the patches a yellow or orange, for I have seen some with a very reddish yellow color, while others were a paler yellow.

T. Very good. But will you look at the base of the stem from which the rootlets come?

S. The Fly-Poison one does not show so distinct a cup around the stem. You can hardly see a cup at all. The base of the stem is large but instead of a regular rim there are only, as it were, fibres sticking out.

T. Very good again. But as you have a number of mushrooms and toadstools in all stages of growth, you can tell me some respect in which there is a difference between this one and the ordinary and other mushrooms.

S. I have a young mushroom here of some kind and there is a sort of a veil running out from the stem to the edge of the cap just as if it were to keep the gills in a chamber by themselves, and when the cap opens out the veil or curtain is torn and remains around the stem as in the figure. But I do not see any outer covering such as is shown plainly in the split specimen of stage 4, and which is being burst in stage 5, and which is completely burst in stage 6, leaving patches on the top of the cap and a rim or cup at the base.

T. That is just what I wanted you to notice. You correctly named the membrane connecting the edge of the cap to the stem as the "veil," and the veil in some species is thinner than a cobweb, and in others a very conspicuous sheet. But the real difference between this and the other gill-caps you have been examining is in the conspicuous outer covering surrounding the whole plant, when it was young, like an egg shell, which, when it is burst, remains as patches sticking more or less firmly to the true skin of the cap and which forms a cup-like rim around the enlarged base. That cup should be shunned as a death cup, and when the cup is nearly invisible, as it is in the Fly-Poison, you should notice that it is really there, although when the covering is burst it does not leave so marked a cup as the other.

S. What do you call the outer covering, the remains of which make the scales on the top and the cup at the base?

T. It is called the "volva" to distinguish it from the "veil."

S. Are all toadstools with a volva poisonous!

T. No. There are two or three or more species which are edible, but there are several at least which are deadly poisonous and which may be responsible for the death of from twenty to thirty people each year in Canada and the United States. So we had better leave all those with the volva at the base, and the scales or the suspicion of them on the cap, than run a risk, especially as there are plenty other species good to eat.

S. How many other kinds are there good to eat?

T. Over a hundred they say. Some have eaten as many as three hundred different kinds and found them safe. But there are twenty or thirty which are abundant enough and give variety enough without our running any risk, if we take the proper care.

S. Why have you the long name under the drawing?

T. Well, *Agaricus* was the Latin name of the mushroom, and the botanists decided to call all gill-caps, very closely resembling the mushroom, by some name that French, Germans and others as well as the English could adopt, and as all the learned people of olden times learned Latin, "*Agaricus*" was selected as the name of the genus or little family. Now, there may be over one thousand different species of gill-caps in America, but of these there may be over four hundred which belong to the genus *Agaricus*, they are so much like the ordinary mushrooms in their manner of growth and their structure. The genus is, as it were, the surname of the plant, and the Christian name is the specific name which comes last. Do we say the surname first when speaking of each other?

S. No, but when the list of those who have to pay taxes is posted up, they put the surname first and the Christian name last. It is easier to find a name among a great number that way.

T. That is just the reason. Well, the botanists called the Deadly Amanita, *Agaricus vernus*, the specific name "*vernus*" meaning in Latin "belonging to Spring," because it appears earlier than other species. And the Fly-Poison Amanita they named *Agaricus muscarius*, L., "*muscarius*" meaning "belonging to a fly"—"*musca*" a fly. And the botanist who first described the plant and gave it the name has his initials put after the name, when writers are very careful. Thus the "L" in the last case means that the great botanist Linnæus described the fungus under the name given.

S. But why is "*Amanita*" put in brackets between the generic and the specific name?

T. Well, you see there are, say, over four hundred species of *Agaricus* in America, and botanists held that they were so near each other that they should be all in the same genus. But as there were groups having

characters more closely resembling each other than the rest, sub-genera were formed. And, say, fifteen white spored gill-caps with a very conspicuous volva were found among these 400, and they were placed by some botanists as belonging to the sub-genus "*Amanita*," really a Greek word for a poisonous fungus. The accent is on the "i" which is generally pronounced like an "ee." Some botanists would make these sub-genera regular genera, and perhaps it would be just as well. We would then call our two fungi "*Amanita vernus*" and "*Amanita muscarius*," respectively.

S. Does it take long for a mushroom to pass through all the stages from the small button to the full grown fungus?

T. There would be only a few hours between the several stages in our drawing. When the fine, invisible (to the naked eye) spores germinate in the proper soil, (and only one in a million finds these proper conditions probably) a fine, white thread-like plant grows and multiplies for a long time until a large spot of the earth is matted with the delicate, fine fibres which are called *mycelium*. The plant proper is this fine, white felt or mycelium. When the plant is mature enough, a small button begins to grow, as shown at 1, and it very rapidly progresses so that in less than twenty-four hours it may be a full grown mushroom. That is why they appear to grow in a night. It is very strange to find that all those minute fibres could be able to supply nourishment for so large a growth as some of them make in even a few hours. And then you see the gills are all formed in their rudiments when the cap is still in the button form.

S. Is the poison of the Amanitas different from that of the other poisonous fungi?

T. It is, and it is known as *amanitine*. Nearly all the other poisonous fungi are either so acrid to the taste and to the stomach, or so violently interfere with the digestion that one feels the effect quite promptly. Emetics will always relieve such cases. But in the case of *amanitine* poisoning, the effects are not felt until from six to twelve hours, and then any ordinary medicine appears to be useless. The injection of another deadly poison in very small quantities into the blood, the one hundredth part of a grain of atropine every six or eight hours under otherwise skilful medical treatment, appears to have saved some lives. The symptoms are very painful and distressing, but we need not describe them here.

Now, it is very curious that this peculiar poison has been found only in the amanita group; but it is equally strange that at least three species of that group are quite harmless. But the "*Spring Amanita*" especially,

the "Fly Amanita" and one or two more at least are as deadly as the venom of a tropical serpent. There appears to be some variation in the strength of the "Fly Amanita," perhaps due to the variety or its particular environment, and in some parts of the world its toxic power has been utilized without serious results. But as a rule it has been found to be deadly here, as *A. vernus* has been without any exception.

Moreover, there is evidence to show that at some times at least, the odor or handling of some amanitas has produced serious symptoms of poisoning immediately, and even a few hours after when absorption through the skin was suspected.

In addition it has been found that one poisonous fungus in a basket of good ones had communicated some of its poisonous properties to the others so as to make them poisonous. Such well attested cases show how careful we must be if we are to use the many delicious and nourishing species which are as valuable for food as the finest meat, as well as being specially appetizing.

Bearing all these points in mind, you can proceed with your study of the fungi more safely than before—in fact without any danger at all. And when you commence to observe next spring, be on the lookout not to be too free with any thing like the "Spring" or "Deadly" Amanita, even if you are only bringing it for examination to the schoolroom.

RULES FOR TESTING FUNGI.

(By W. Hamilton Gibson).

1. Avoid every mushroom having a cup or suggestion of such at the base of the stem (the volva of the Amanitas); the distinctly fatal poisonous ones are thus excluded.
2. Exclude those having an unpleasant odor, a peppery, bitter, or other unpalatable flavor, or tough consistency.
3. Exclude those infested with worms, or in advanced age or decay.
4. In testing others which will pass the above probation let the specimen be *kept by itself*, not in contact with or enclosed in the same basket with other species.

The modus operandi. Begin by a mere nibble, the size of a pea, and gentle mastication, being careful to swallow no saliva, and finally expelling all from the mouth. If no noticeable results follow, the next trial, with the *interval of a day*, with the same quantity, may permit the swallowing of a little of the juice, the fragments of the fungus being expelled as before.

No unpleasantness following for twenty-four hours, the third trial may permit of a similar entire fragment being swallowed, all of these experiments to be made on "an empty stomach." If this introduction of the actual

substance of the fungus into the stomach is succeeded by no disturbance in twenty-four hours, a larger piece, the size of a hazel-nut, may be attempted, and thus the amount increased day by day until the demonstration of the edibility, or at least harmlessness, is complete, and the species thus admitted into the safe list. By following this method with the utmost caution, the experimenter can, at best, suffer but a slight temporary indisposition as the result of his hardihood, in the event of a noisome species having been encountered, and will at least thus have the satisfaction of the discovery of an enemy or a friend.

It may be said that any mushroom, *omitting the Amanita*, which is pleasant to the taste and otherwise agreeable, as to odor and texture when raw, is probably harmless, and may safely be thus *ventured on* with a view of establishing its edibility. A prominent authority on our edible mushrooms, McIlvaine, applies this rule to all Agarics with confidence. "This rule may be established," he says: "All Agarics—excepting the Amanitas—mild to the taste when raw, if they commend themselves in other ways, are edible."

This claim is borne out in his experience, with the result that he now numbers over one hundred species among his habitual edible list out of the three hundred which he has actually found by personal test to be edible or harmless. "*So numerous are toadstools*," he continues, "*and so well does a study of them define their habits and habitats, that the writer never fails upon any day from April to December to find ample supply of healthy, nutritious, delicate toadstools for himself and family.*"

For the REVIEW].

The Study of the History of Art—A Suggestion.

The educational importance of the cultivation of taste is now so universally recognized that a suggestion for the systematic study of the History of Art can hardly be out of place in these pages.

Though a knowledge of technique may not be necessary to the enjoyment of Art, yet for the intelligent appreciation of the artist's motive and achievement some knowledge of his time and surroundings is indispensable. How utterly unjust it would be to compare the attenuated forms of Cimabue's Madonnas of the thirteenth century with the perfect drawings of Vedder and Abbey, and yet in our ignorance of what to expect we make just as foolish comparisons, laughing where we should reverence and criticising where we should humbly learn.

The History of Art teaches us what to expect in a picture, what to look for in a gallery, and why some of the least attractive looking works are the most valuable.

With a sound — even if limited — knowledge of the subject, we can walk the galleries of Europe, on our next vacation, with appreciation supplying the usual expression of vacancy, and with a manner befitting “the heir of all the ages.”

But how are we, remote from the great galleries and libraries, and with no such course in our schools and colleges, to acquire any thorough knowledge of this subject?

Now here, I think, is an opportunity for the home reading club to do a good winter's work, and by co-operation the necessary books and illustrations may be obtained at small expense. The latest editions of Art books are so richly illustrated that fewer photographs will be needed*.

Of course, each club or class must choose its own line of study, but in view of a natural feeling of bewilderment at the vastness of the subject, I venture to submit the following examples of courses:

1. General Survey of Art of Peoples, from primitive times down to the complexities of Medieval Art when it must be divided into the great branches,—Architecture, Sculpture, Painting.

Text-Book, “Outlines of the History of Art,” Wilhelm Lübke. Translated by Clarence Cook—2 vols. Dodd, Mead & Co., New York, 1886.

Other books valuable for reference:

“Painters, Sculptors, Architects, Engravers and their Work.” Clara Erskine Clement. Houghton, Mifflin & Co. Boston and N. Y., 1893.

The Catalogue of Casts of the Boston Museum of Fine Arts. Houghton, Mifflin & Co. (Valuable hand-book).

“A History of Ancient Sculpture.” Lucy M. Mitchell, New York, 1883. (Highly recommended).

“European Architecture,” Russel Sturgis.

“Roma Sotteranea.” Northcote & Brownlow, Longmans, Green & Co., London, 1879.

2. The Art of any country may be studied in all its branches. Following are a few of the many books that may be consulted:

“Principal Painters of Dutch and Flemish Schools.” Stanley.

“Hand-book of Painting, German, Flemish and Dutch.” Head. (Also Spanish).

“Renaissance of Art in France.” Mrs. N. Pattison.

“A History of French Painting.” C. H. Strahan. Chas. Scribner's Sons, N. Y., 1893.

“Cathedrals of England.” Archdeacon Farrar. T. Whittaker, N. Y., 1893.

“The English School of Painting.” Ernest

Chesneau. Translated by Lucy Etherington. Cassel & Co., London and New York, 1887.

“History of Painting in Italy from Second to Sixteenth Century.” Crow & Cavalcaselle.

“Pictures by Italian Masters.” W. B. Scott. London, 1876.

“Mornings in Florence.” Ruskin.

“Renaissance in Italy.” L. Scott, London, 1883.

“Pictures by Venetian Painters.” W. B. Scott, 1875.

“Stones of Venice.” Ruskin.

3. Art as Divided by Periods,—Primitive, Classic, Early Christian, Medieval, Renaissance, Modern.

Text-book, Lübke's “Outlines of the History of Art.”

Other reference books:

“The Art Schools of Medieval Christendom.” A. C. Owen. Edited by John Ruskin. Mozley & Smith, London, 1876.

“Historical Studies of Church Building in the Middle Ages.” Charles Eliot Norton.

(See also books in other courses).

4. Sacred Art — from which Legendary Art cannot be separated.

“Sacred and Legendary Art,” “Legends of the Madonna,” “Legends of the Monastic Orders,” Anna Jameson. Edited by Estelle M. Hurl. 5 vols. Houghton, Mifflin & Co., Boston and New York, 1896.

“Hand-book of Christian Art.” Clara Erskine Clement.

“The History of Our Lord,” commenced by Mrs. Jameson, completed by Lady Eastlake.

“The Life of Christ as Represented in Art.” Archdeacon Farrar. A. & C. Black, London, 1894.

“The Christ Child in Art.” Henry Van Dyke.

“Christian Art and Symbolism.” Rev. R. St. John Tyrwhitt. Smith, Elder & Co., London, 1872.

Articles in *Century Magazine* for 1890 by W. J. Stillman.

Any of these courses would furnish material for a winter's work. If the club is literally *beginning* the study, the first course will be decidedly the most logical, and for a starting point nothing can be better than a careful study of Lübke's “Outlines of the History of Art.” The following will serve as an example of meetings of class studying Lübke:

First Meeting—Subject, “Ancient Art of the East”; Introduction and First Book to be read carefully at home by entire class, and an abstract of each chapter to be given in class by four appointed members; maps, illustrations and references.

Second Meeting—Subject, “Classic Art”; Second Book, first chapter, first two divisions; abstracts from five members; references, illustrations, etc.

* A catalogue of photographic reproductions of works of Art may be obtained of the Scule Photograph Co., 340 Washington street, Boston, Mass. Price 15 cents.

Third Meeting—Subject, "Greek Plastic Art and Greek Painting"; Second Book, first chapter, divisions three and four; abstracts from six members. And so on. This dividing of the long chapters among the members will be found to lessen the labor while increasing the interest and thoroughness of the work. Reference books may be passed from one to another till all are familiar with their contents. Photographs should be mounted on cardboard or fastened by the corners to a stiff background, as constant unrolling injures them.

The spirit of inquiry once caught from this absorbing subject, plans and outlines will suggest themselves; and I may safely leave the awakening of *interest* to the authors recommended.

JEAN M. GANONG.

TEACHERS' CONVENTIONS.

UNITED MEETING OF WESTMORLAND AND KENT TEACHERS.

The united meeting of the Institutes of Westmorland and Kent, N. B., was held at Moncton, Oct. 14th and 15th. There was an attendance of over 100 teachers. President Allan, of the Westmorland County Institute, occupied the chair, and Chief Superintendent Dr. Inch and Inspector Smith were present. There was much interest in the proceedings. Papers were read by Miss Harriett Ramsay, of Kent County, on Natural History; by Miss Kate Willis, of Moncton, on English Literature; by W. A. Cowperthwaite, B. A., of Kent, on Canadian History; and by E. D. Cormier, of Kent County, on The Teaching Profession. A discussion on Practical Education in our Schools was opened by Geo. J. Oulton, A. M., principal of the Moncton High School. Principal O'Blenus, of Salisbury, W. W. Anderson, of Moncton, Inspector Smith, R. D. Hanson, of Petitcodiac, N. W. Brown, of Dorchester, and Dr. Inch took part in the discussion.

The public meeting on Thursday evening, Oct. 14th, was largely attended. President Allan occupied the chair, and addresses were delivered by Mayor Robinson and D. Grant, chairman of the Moncton School Board, welcoming the teachers, to which responses were made by Messrs. Cowperthwaite of Kent and Brown of Westmorland. Addresses were made by Dr. Inch, Secretary McCully of the Moncton schools, Revs. Hinson, Robinson and Lodge. The proceedings were enlivened by music.

Miss Nicholson and Miss Dupuis gave a creditable exhibition of kindergarten work, which was highly spoken of.

The following officers were elected for the Kent County Institute: President, Inspector Smith; Vice-

President, Miss Chrystal; Secretary, W. A. Cowperthwaite; Executive, Miss N. Ferguson and Geo. Hutchison. For the Westmorland Institute: H. L. Brittain, of Moncton, President; Miss Grierson, of Dorchester, Vice, and S. W. Irons, of Moncton, Secretary-Treasurer.

The latter Institute will meet at Moncton next year.

Touching reference was made by Principal Irons to the loss sustained by the death of several teachers during the past year, and the following resolution was passed:

Inasmuch as it has pleased Providence to remove from our midst since our last annual meeting the old, experienced and well-known teachers whose interest in our Teachers' Institute was always manifest by their presence and counsel, viz., Mr. S. C. Wilbur, M. A., who was for nearly twenty years teacher in Moncton and for many years principal of Moncton High School, and more than once president of this Institute; Mr. D. M. Trites, also a teacher in this city for more than thirty years, and one of the few teachers who taught before the inauguration of the present school system; and also Miss Sarah Forster, a most successful teacher for many years in Kent and Westmorland Counties; and, further, a somewhat younger teacher, but one of excellent qualities, who was for some years teacher in Dorchester and Kent, viz., Miss Lauretta Phinney;

Therefore we, the United Institute for Westmorland and Kent, desire to place on record an expression of the sense of loss which we feel we have sustained by their death, and sincere regrets on account of their removal from us.

S. W. IRONS, }
G. J. OULTON, } For Institute.
A. M. GRIERSON, }

To Young Teachers.

Having a vivid recollection of my own haps and mishaps when I first entered upon what has become my life work, I feel moved to write something for the benefit of young and inexperienced teachers, hoping that it may prove the means of encouraging them, and aiding them to avoid some of my mistakes.

* * * In the first place, my dear young teachers, I know you are entering upon your work with high resolves and bright anticipations, and I am glad of it, for if your ideals are high you will be much more likely to succeed than if they were not. I know it is the fashion among a certain class of teachers whose pedagogical liver is out of order to smile pityingly at the enthusiasm of young teachers, and even to sneer at them because they refuse to accept their jaundiced views; but you will do well to pay no attention to them, for you cannot succeed without enthusiasm; it makes you more cheerful, lends a rosy hue to the school-room atmosphere, aids you when you encounter perplexities, and reacts upon the pupils, making them more in sympathy with you, and more interested in their work. Without enthusiasm the pupils will be dull and lifeless, the hours will drag their slow length along, the only welcomed one being the hour of dismissal. A teacher without enthusiasm is like April without its showers, or June without its roses, and I, for one, will say nothing to lessen it.

The next element of success is earnestness, and you

each possess a good share of that. Earnestness wins in the school-room as well as out of it. Even if we differ from our neighbor's opinions and practices, we respect him if he is sincere and in earnest. Pupils will soon discover whether their teacher is thoroughly in earnest or not, and the first sign of indifference will be noted by them. Earnestness wins their hearty co-operation and respect; carelessness and indifference calls forth like characteristics from them.

Many a teacher, bright, intelligent, well educated, and with attractive personality, fails for lack of earnestness, while many, on the contrary, succeed, not because they are pre-eminently endowed with all the moral and intellectual qualities, but because they possess that characteristic. They impress their pupils with the fact that they are thoroughly in earnest, and that they expect them, too, to be in earnest; and they generally succeed in making their pupils earnest; for "like begets like," you know, especially in the school-room.

A third essential is sincerity, without which all else is of no account. If your pupils suspect your honesty of purpose; if you give them cause to think that your words of commendation are not earned—that you are flattering them; if you are not straightforward in everything, your influence for good is greatly weakened, if not altogether destroyed. "Do things honest in the sight of all men" does not necessarily apply to grown-up men only, but to the little men and women in the school-room as well. One of the great needs of the world to-day is sincerity, and if the children do not find it in their teacher their chances for the future are not very bright, for, strange to say, and sad to think, too often parents are lacking in this quality of character, so that the only place children have an example of honesty to imitate is in the school-room and in the person of their teacher. Is the above remark too severe upon parents? Think for a moment. How many parents tell their children that bitter medicine is sweet? or if they are not good the "black man" will catch them? or make them promises which they never mean to keep? I repeat, that in too many cases the teacher is the only example of absolute honesty with which the children come in contact; so it may be readily seen how essential this quality is to the teacher. To be successful in the highest and truest sense, teachers must be genuine, not only in word, but in action; not only in outward appearance, but in intention. If you are not, your children will soon detect the false metal in your composition, and will never believe in you afterward, and it is no light thing to forfeit the faith of "these little ones." Paraphrasing, not irreverently, the closing words of that wonderful thirteenth chapter of Corinthians: And now abide with enthusiasm, earnestness, sincerity, these three; but the greatest of these is sincerity.—*E. L. Cowdrick, in Western School Journal.*

SUPPLEMENTARY READING.

Science Utilizes All the Ox.

In an article on the "Wonders of the World's Waste," William George Jordan, in the October *Ladies' Home Journal*, details how science at the present day utilizes the ox. "Not many years ago," he says, "when an ox was slaughtered forty per cent. of the animal was wasted; at the present time 'nothing is lost but its dying breath.' As but one-third of the weight of the animal consists of products that can be eaten the question of utilizing the waste is a serious one. The blood is used in refining sugar and in sizing paper, or manufactured into door knobs and buttons. The hide goes to the tanner; horns and hoofs are transformed into combs and buttons: thigh bones, worth eighty dollars per ton, are cut into handles for clothes brushes; fore leg bones sell for thirty dollars per ton for collar buttons, parasol handles and jewelry; the water in which bones are boiled is reduced to glue; the dust from sawing the bones is food for cattle and poultry; the smallest bones are made into boneblack. Each foot yields a quarter of a pint of neat's foot oil; the tail goes to the soup; while the brush of hair at the end of the tail is sold to the mattress maker. The choicer parts of the fat make the basis of butterine; the intestines are used for sausage casings or bought by gold beaters. The undigested food in the stomach, which formerly cost the packers of Chicago thirty thousand dollars a year to remove and destroy, is now made into paper. These are but a few of the products of abattoirs. All scraps unfit for any other use find welcome in the glue pot or they do missionary work for farmers by acting as fertilizers."

A most phenomenal island is that of Bornholm, in the Baltic, belonging to the kingdom of Denmark. It is famous for its geological peculiarities, consisting as it does almost entirely of magnetite, and its magnetic influence is not only very well known to the navigators of those waters, but also much feared by them, on account of its influence on the magnetic needles, which makes the steering of a ship correctly a matter of much difficulty. In fact, this influence is felt even at a distance of miles, and so palpably that, on the island being sighted by mariners on the Baltic, they at once discontinue steering their course by the needle, and turn, instead, to the well-known lighthouses and other holds to direct their craft. Between Bornholm and the mainland there is also a bank of rock under water, which is very dangerous to navigation, and because of its being constantly submerged, vessels have been frequently wrecked at that point. The peculiar fact in this case is that the magnetic influence of this ore bank is so powerful that a magnetic needle suspended freely in a boat over the bank will point down, and, if not disturbed, will remain in a perfectly perpendicular line.

How Glooscap Found the Summer.

The following pretty legend is one of those told around the campfires of the Passamaquoddy Indians; and listened to again and again with unabated interest, as we would listen to our favorite songs. Neither the writer nor the friend to whom he is indebted for the story (Mrs. W. W. Brown, of Calais), understands the meaning of the expression, "When people lived always in the early red morning before sunrise"; nor could the Indian who recited it in broken English give any explanation of it, although he insisted that it was part of the legend.—J. VROOM, St. Stephen.

In the long ago,
When people lived always in the early red morning
Before the rising of the sun,
Before the land of the Wabanaki* was peopled as to-day,
Glooscap went very far north, where all was ice.

He came to a wigwam,
Therein he found a giant,
A mighty giant, whose name was Winter.
Glooscap entered. He sat down.
Winter gave him a pipe. He smoked,
And the giant told tales of the olden time.

The charm was upon him;
The giant talked on, and Glooscap-fell asleep.
He slept for six months, like the toad;
Then the charm fled, and he awoke.

He went his way home.
He went toward the south; and at every step it grew warmer:
And the flowers began to come up and talk to him.
He came to where many little ones† were dancing in the forest.

Their queen was Summer.
I am singing the truth; it was Summer,
The most beautiful one ever born.

The fairies surrounded their queen;
But the Master deceived them by a crafty trick;
He cut a moose hide into a narrow strip and bade them
them hold one end;
Then, running away with Summer, he let the end trail
behind.
The fairies of light pulled at the cord;
Glooscap ran on; the cord ran out;
And, though they pulled, he left them far away.

So he returned to the lodge of Winter;
But now he had Summer in his bosom.
And Winter welcomed him again,
For he hoped to freeze him again to sleep.
I am singing the song of Summer.

But this time the Master did the talking;
This time his magic was the stronger;
And the sweat soon ran down Winter's face.
And he and his wigwam melted more and more,
Until they had melted quite away.

Then everything awoke:
The grass grew; the fairies came out;
The melted snow ran down the rivers, carrying off the
dead leaves,
And Glooscap left Summer with them and went home.

* The tribes of Nova Scotia, New Brunswick and Northern Maine.

† The flower spirits.

PRIMARY DEPARTMENT.**For the Little Ones.**

What words were left out in these lines:—

There were — squirrels up in a tree,
One came down and then there were three.

Nine little chickens belong to one hen,
Hen and chickens all told make —.

Six little girls in a class at school.
— little boys came in one day.

Then there were — little boys and girls
When they all went out to play.

Seven fat hens and a rooster straight
Walked into the house, and that made —.

The hen lays eggs, one, two, three, four,
Fred wants five, so she lays — more.

In the fields the lambs are bleating;
What do you think the sheep are —?

—“*The Riverside Primer and Reader*,” Houghton,
Mifflin & Co.

In the October REVIEW some hints were given about school-room decorations for that month and October. Some few additions may be made for the Thanksgiving season. It will be easy to add blackboard drawings of fruits and vegetables, and bright-colored pictures of these from seed catalogues may easily be obtained, and placed in rustic frames, bordered with spruce or pine cones. Ears of corn, vegetables, fruits, may be brought into the room and tastefully arranged. These will serve to close up the year's lessons on plant life and give reasons why this season should be set apart for special thanksgiving. Bunches of wheat, oats, and other cereals, with loops, made by stringing kernels of different colored corn on twine, will give a chance for appropriate and artistic decorations. A small hemlock, fir, or spruce tree, about a foot or two in height, placed in a large flower-pot or small wooden tub, makes an effective ornament. Make a special effort to have your school-room bright for Thanksgiving, and the same decorations, with a sprinkling of evergreens and mottoes, will do for Christmas.

Miss Alice Longfellow, in the *Youth's Companion*, thus writes of her father: "He never endured any sarcastic word to a child, especially from a teacher, and considered it most dangerous and blighting to any originality or imagination. Sympathy first, and then criticism, when needed, but a criticism that cleared away difficulties and showed the right path, never a criticism that left merely discouragement and bewilderment behind."

"About the House" Sentences.

[The merit of this exercise is in having the children think and say something especially good. One thoughtful sentence well expressed is of greater value than many weak, thoughtless sentences.]

Write one good sentence about

floor	carpet	windows
latch	laths	stove
oven	rafters	roof
shed	shelf	kitchen
cupboard	sink	hearth
fireplace	bookcase	table
pantry	stairs	cellar
ceiling	flue	door
sash	wall-paper	register
radiator	rug	under the sink
furnace	blinds	piazza
chimney	coal-hod	tongs
bed	bureau	rocking-chair.

—*American Primary Education.*

Spelling for Little Folks.

by	no	meat	road
of	kncw	rain	rowed
off	new	reign	write
I	knew	fly's	right
eye	sail	flies	lamb
son	sale	bow	many
sun	bear	bough	through
any	bare	hopped	threw
ate	led	hoped	limb
eight	lead	boys	Wednesday
sum	pane	boy's	February
some	pain	rose	

These words, selected from the journal above named, may also be used as drill in sentence-writing, but guard against the sentence that means nothing or costs no thought. If children can be led to make sentences involving descriptions of their walks to and from school, incidents of the home or school-room, facts that they have learned in previous lessons,—such composition exercises will be a delight to them; as, "Passing *by* a house this morning I saw some pretty plants in the window," "Paper is made of rags" (or straw, or wood), etc.

Story for Reproduction.

An Italian boy was selling statues of well-known public men and others, when a man passing by accidentally knocked one over, breaking an arm off, which caused the boy to cry. A sailor close by inquired the nature of the boy's grief, and he replied, "My statue of Mr. Gladstone is broken." "Can't you mend it?" asked the man. "No," replied the boy tearfully. "Then knock one of his eyes out and sell him for Nelson," replied the seaman, much to the amusement of the crowd around.

THE CLASS-ROOM.**A Lesson on Teaching Composition.**

The object of all language teaching, the correct use of our mother tongue, is that the pupil may acquire ease and correctness in expressing thought both in speaking and writing. By far the most important factor in language teaching is composition. By this I do not mean setting the pupils to write essays on abstract subjects. What I mean is the practice, oral and written, in the use of good language. Here we must begin with the primary grades. The little ones love to listen to stories, and with a little encouragement they can be led to tell the story themselves. Get them to talk to you by all the means at your command. Encourage them to tell about the games they play, the walks they take, anything in which they are interested. Let written composition begin as soon as they can write and spell with some degree of ease.

In dealing with answering the questions in writing on each reading lesson I prescribe the questions to be studied with the lesson. Then next morning these questions are answered in their exercise books before the reading of the lesson. In correction of wrong forms of speech my plan is to note and have corrected each error in grammar. But I have found most difficulty in getting the pupils either to repeat the substance of the reading lesson orally or to reproduce it on paper. The reason of the difficulty is that by the time the children have read the lesson several times they become so well acquainted with it that they adhere too closely to the words of the book instead of using their own language. In order to overcome this difficulty I have tried different plans, and have found them more successful in leading the pupils to express their thoughts in their own words than the reproducing of the reading lesson. One plan which I have found to interest the children is to ask them to write a short account of any visit they have made during vacation or at any time, or of anything which they have seen or of which they have read. Then a certain number read their story to the class. Another good plan is to distribute pictures, one to each pupil, and ask them to write a short story about what they see in the picture, one pupil putting his story on the blackboard, so that the class may criticise, and then a number of others reading their compositions, holding the picture so that all may see it. These plans, I have found, lead the children to think and to express their thoughts in words, which is one of the difficulties to be overcome in the work of the intermediate department.

Last winter I began to read to my school, consisting of grades V, VI and VII, Dickens' *Child's History of*

England. I would read a few paragraphs and then require the pupils to write. If there were any words which they would be likely to misspell, I wrote them on the blackboard, remembering that 'prevention is better than cure.' From the very first the children were delighted with the exercise. By this work the children gained much. It was practice in listening attentively, for they soon found that if they only half listened some things would slip out of the mind before they could be written down. Then it is an exercise in writing, for a carelessly written exercise must be done over again. Then they are getting a taste for good literature and more interest in books and in reading generally. One teacher told me that after trying in vain to awaken an interest in the art of composition she hit upon the following plan, which succeeded beyond her expectation and it gave her a good opportunity to study the likes and dislikes and the inclinations of her pupils. On Monday morning she announced to her pupils that the only subjects for composition the following Friday would be descriptions of something each scholar had seen being done; these were to be accounts of the actual working of some business or occupation, and each writer was to be familiar with his subject. At the appointed hour all went industriously and eagerly to writing. She told me that twelve girls described the process of making bread, and their directions were for the most part safe to follow. Three boys, the sons of blacksmiths, described intelligently and minutely the work of horse-shoeing. The sons of artisans looked after the trades of their fathers, for seven boys wrote about the building of wooden houses. I agree with that teacher; that is a good plan and I recommend it to the consideration of others.

Anything we desire to learn is best learned by practice on successive days. Therefore, I think there should be a period, however short, devoted to composition writing on each school day. The matter of the composition should be selected from the class work in which the pupil is engaged—his history, his geography, his reading.

The pupils of a given class are asked to write what they can on a topic selected from the class work of the preceding day. They are allowed from ten to fifteen minutes in which to write. Then each pupil is asked to read silently his own composition, to discover whether each division of the subject-matter has a paragraph to itself and whether all he has to say on that division is contained in that paragraph. If he finds his work faulty he is told to correct it at once. Then the pupils are told to read each his composition a second time to determine (1) whether each sentence has only one central thought. In answering this query he should

mentally divide each sentence into its complete subject and complete predicate. (2) Whether there are any mistakes in capitalization and punctuation. When the pupil is in doubt he should at once look up the word in a dictionary. After a few trials all this work can be done within a period of thirty minutes. The reading aloud of two or three compositions each day, and the questions referred by the pupils to their teacher, show how well the work of correction has been performed.
—*Maggie H. Mowatt, Chatham, N. B.*

Self respect is the basis of all self-government, which is the only true government for children and youth; and just in proportion as we injure or destroy that fundamental element of real order, we create the very faults we are seeking to eradicate. To rob a child of its self-respect is like removing the mainspring from a watch; and the constant looking for faults will soon give occasion that we shall not look in vain, for by that very means we are planting and cultivating the seeds we most earnestly wish rooted out, and we come to be looked upon as the natural enemy of the children whom we really love and honestly wish to benefit.—*Preston Papers.*

QUESTION DEPARTMENT.

CONSTANT READER.—Ascertain the effect of gravity upon the pressure of water at different depths, and greatly oblige a constant reader and subscriber.

The pressure upon any horizontal area of a liquid at rest is due to the weight of the atmosphere pressing on an equal area on the surface of the liquid and the weight of the liquid vertically above the given area. The pressure from the weight of the superincumbent liquid will be very nearly proportional to the specific gravity of the liquid and to the height of the liquid above the given area. The result will be very slightly modified by the compressibility of the liquid and by the distance of its various parts from the centre of gravity, but these results are so small as never to be taken into account. The pressure on a horizontal square foot of water at the depth of one foot will be 62.3 lbs. At the depth of two feet it will be double that, and so on according to the depth.

(1) A person buys 6 per cent. City of Toronto bonds, the interest on which is paid yearly, and which are to be paid off at par, 3 years after the time of purchase; if money be worth 5 per cent., what price should he give for the bonds?

This is an algebraic exercise. Let P represent the present value of the bonds.

$$\begin{aligned} \text{Then } P(105)^3 &= 100 + 6(1.05)^2 + 6(1.05) + 6 \\ &= 118.915 \end{aligned}$$

Therefore, $102.723 + =$ Price of bonds.

(2) H. S. Arithmetic, Ex. Papers, p. 215, Part II, Ex. 4.

For solutions see EDUCATIONAL REVIEW, May, 1895, or March, 1896.

Grade D., N. S. School Examinations.

ENGLISH GRAMMAR.

3.10 to 4.10 P. M., FRIDAY, 9TH JULY, 1897.

1. What parts of speech may each of the following words be: *Deck, stone, but, past, after and round*. Write short sentences illustrating the several uses of them.

Consult a good dictionary.

2. Give the past tense and the past participle of the following verbs: *Arise, burst, rise, raise, lead, swim, teach, ride, spit, split, shave*. Distinguish between the uses of the past tense and past participle.

3. Define, *Adverb, Conjunction, Preposition*, and state the various ways in which the *subject* may be enlarged.

4. Parse: He who would search for pearls must dive below.

"He" subject of "must." "Who" is subject of "would."

"Would," a verb, weak, indicative, past, etc.

"Search," a verb, infinitive, etc.

"Must," a verb, intransitive, indicative, present, etc.

"Dive," a verb, infinitive, etc.

5. Analyze: I have heard that in the mountainous districts of Scotland, shepherds shoot the hill-fox, which is most destructive to lambs.

"I have heard," principal clause; "that in the * * * hill-fox," noun-clause, object of "I have heard"; "which * * * lambs," adjective clause qualifying "hill-fox."

LATIN.

10.10 to 11.10 A. M., WEDNESDAY, 7TH JULY, 1897.

1. Decline together, in the singular: *Lapis asper* and *animal velox*; in the plural *Filia bona*, and *gradus longus*. Translate: *Habent columbae caudas*? What is the meaning of *ne*?

2. Deline *qui* and *is*. Compare *pulcher, levis, humilis, malus, multus*. Name the prepositions followed by the ablative.

3. Give the principal parts of: *Volo, fero, fruor, duco, scribo, venio, impleo, sedeo, canto, eo*. Write the Future Indicative Active of *audio*, and the Perfect Indicative Passive of *amo*.

4. Translate into Latin any four of the following sentences: (1) Many horses and horsemen are seen in the town. (2) The prisoners were wounded by the soldiers with their swords. (3) There are swift eagles in the mountains. (4) Caesar conquered all his enemies. (5) Even your own friend will blame you. (6) He is a bad man, who does not respect any one. (7) Regulus returned from Africa to Rome.

In oppido equi et equites multi videntur. Captivi a militibus gladiis vulnerati sunt. In montibus sunt aquilae celeres. Caesar hostes suos omnes superaverunt. Tuus amicus ipse te reprehendet. Malus est qui neminem veretur. Regulus Romam ab Africa rediit.

5. Translate into English any five of the following sentences: (1) Liber vini erat deus et in Italia templa multa habebat. (2) Mores boni et diligentia a magistro laudabuntur. (3) Alii virtute, alii dolis hostes superant. (4) Amicus fidus non aberit ab amico in casibus fortunae. (5) Multi peccata sua excusare quam deponere malunt. (6) Populus solet non nunquam dignos praeterire. (7) Longa nobis est omnis mora quae gaudia differt.

Bacchus was the god of wine, and used to have many temples in Italy. Good habits and diligence will be praised by the master. Some overcome their enemies by courage, others by guile. A faithful friend will not be wanting to a friend in the vicissitudes of fortune. Many would rather justify than get rid of their faults. The populace is wont sometimes to neglect the worthy. All delay which defers pleasures to us is tedious.

FRENCH.

3.10 to 4 P. M. WEDNESDAY, 7TH JULY, 1897.

1. Translate into English: A qui le fermier a-t-il vendu les moutons? Aux bouchers. Qu'arriverait-il, si les loups se devaient entre eux? Je pense qu'il y aurait moins de brebis croquées. Distinguish between *dix mille* and *dix milles*.

To whom has the farmer sold the sheep? To the butchers. What would happen if the wolves ate each other? I think there would be fewer sheep devoured. Dix mille, ten thousand. Dix milles, ten miles.

2. Translate into French: There is not enough milk in the coffee. How many hours are there in a day? Whose shoes are these? Mine. If he is in need of money here is some. Do they think of me? No. Myself, himself, herself, one's self, ourselves.

Il n'y a pas assez de lait dans le café. Combien d'heures y a-t-il dans un jour? A qui sont ces souliers? A moi. S'il a besoin d'argent en voici. Pensent-ils à moi? Non. Moi-même, lui-même, elle-même, soi-même, nous-mêmes.

3. Write the Indicative Mood of *être*, the Imperative of *punir*, the Conditional of *recevoir*.

4. Translate into English: Il n'y a pas tant de canaux en Suisse qu'en Hollande. Si la laitière n'avait pas sauté de joie, elle n'aurait pas perdu son lait. Ce n'est pas à lui que je pense, je vous assure. Quand les chats n'y sont pas, les souris dansent. Il y avait déjà une demi-heure que je les attendais, quand elles sont arrivées.

There are not so many canals in Switzerland as in Holland. If the milkmaid had not leapt for joy, she would not have lost her milk. It is not of him I am thinking, I assure you. When the cats are away the mice play. I had already waited for them half an hour before they came.

5. Translate into French any five of the following: (1) These young ladies are not my sisters; they are my cousins. (2) January has thirty-one days; June has only thirty. (3) I have money, but not so much as the merchant. (4) At what o'clock will the train from Ottawa arrive? (5) Speak to him and he will answer you. (6) He has always the toothache when the lesson commences. (7) I receive letters from Boston every day.

Ces demoiselles ne sont pas mes sœurs; elles sont mes cousines. Janvier a trente et un jours; June n'en a que trente. J'ai de l'argent, mais pas tant que le marchand. Le train d'Ottawa quand arrivera-t-il? Parlez-lui et il vous répondra. Il a toujours mal aux dents quand la leçon commence. Je reçois des lettres de Boston tous les jours.

ARITHMETIC.

9.00 to 10.00 A. M., FRIDAY, 9TH JULY, 1897.

(All the work, except what is mental, should be plainly expressed on the paper. Answers without the work leading up to them will be assumed to be guesses, etc., and therefore of no value.)

1. (a) Simplify

$$.004 \div .0005$$

$$2.423 + 3.576 + 2.0001911$$

(b) Find the value of 3.16875 of £1.

$$(a) \quad .004 \div .0005$$

$$2.423 + 3.576 + 2.0001911$$

$$= \frac{2.4232323 + 3.5765765 + 2.0001911}{8}$$

$$= \frac{8}{7.9} = \frac{8}{8} = 1 \text{ Ans.}$$

(b) Ans. £3 3s. 4½d.

2. (a) Two cog-wheels, containing 210 and 330 cogs respectively, are working together. After how many revolutions of the larger wheel will two cogs which once touched, touch again?

(b) Extract the square root of $11\frac{37}{9}$.

(a) Find the least common multiple of 210 and 330 = 2310. Divide by the number of cogs in the larger wheel, $2310 \div 330 = 7$. *Ans.*

(b) $\sqrt{11\frac{37}{9}} = \sqrt{\frac{578}{9}} = \frac{24}{3}$. *Ans.*

3. (a) Find the cost of 3768½ articles at £1 7s. 4½d.

(b) If 3 men can earn \$15 in 4 days, what sum will 18 men earn in 12 days?

(a) *Ans.* £5158 2s. 8¼d.

(b) *Ans.* \$270

4. Make out an account of the following sales, supplying names and dates of your own selection: 6 pairs of blankets @ \$5.50; 12½ yds. merino, @ 45 cts.; 15¾ yds. cloth, @ \$3.25; 5¼ yds. of flannel, @ 30 cts.; 2 counterpanes, @ \$4.25 each; 25¼ yds. of calico, @ 15 cts.

Ans. \$103.70.

5. (a) Find the interest on \$1,000 at 3 per cent. per annum from the 11th January, 1895, to the 9th July, 1897.

(b) At what rate per cent. will \$520 amount to \$800.80 in 6 years, simple interest?

(a) *Ans.* \$74.71, if leap year is not taken into account.

(b) \$800.80 - \$520 = \$280.80 interest for 6 years
\$46.80 interest for one year.
If \$520 gives \$46.80
\$100 will give \$9.

DRAWING AND BOOK-KEEPING.

10.10 TO 11.10 A. M., FRIDAY, 9TH JULY, 1897.

(Values need not be expected in this paper for answers in which the *Drawing* and *Writing* are not good, for this paper is designed to test the degree to which the hand has been trained to do beautiful and accurate work.)

1. The two sides of a triangle are 325 and 479, and the angle opposite the former side is 36°. Construct the triangle (on the scale of 100 to an inch if convenient, but any other scale will do as well), and find the other angles and side. If this problem has two solutions, find the other parts of each triangle.

Problems like this have two solutions when the side opposite the given angle is less than the other given side.

Ans. 1st solution: Third side about 225, angles 120° and 24°.

2nd solution: Third side 550, angles 60° and 84°.

2. Draw (a) the front of a house, or (b) a vase or pitcher standing on a rectilinear surface.

3. Draw (a) any original design you choose, or (b) any object in connection with your "science" or "nature" studies.

4. Draw out a form of a Cash Book, and explain its use.

What sums entered in the Cash Book for Single Entry are found in the Ledger? Describe the process of balancing the Cash Book.

5. Write out the form of a "Due Bill payable in goods," a "Receipt in full," and a "Joint Promissory Note." Explain Voucher, Discount, Draft, Invoice, Assets.

ALGEBRA.

9.00 TO 10.00 A. M., WEDNESDAY, 7TH JULY, 1897.

1. (a) If $a = 0$, $b = 1$, $c = -2$, $d = 3$, find the value of $(3abc - 2bcd) \sqrt{a^3bc - c^3bd + 3}$.

(b) Simplify $4\{a - \frac{2}{3}(b - \frac{1}{3})\} \{\frac{1}{2}(2a - b) + 2(b - c)\}$.

(a) *Ans.* 36.

(b) *Ans.* $4a^2 - 9b^2 + 24bc - 16c^2$.

2. (a) Write down five consecutive numbers, of which x is the middle one.

(b) Given the equation $\frac{x + .75}{.125} - \frac{x - .25}{.25} = 15$, find the value of x .

(a) *Ans.* $x - 2, x - 1, x, x + 1, x + 2$.

(b) *Ans.* 2.

3. The width of a room is two-thirds of its length. If the width had been 3 feet more and the length 3 feet less, the room would have been square; find its dimensions.

3. Let $x =$ length then $\frac{2}{3}x =$ breadth
 $x - 3 = \frac{2}{3}x + 3$
 $x = 18$. *Ans.*

4. Given $x - \frac{y}{5} = 6$
 $y - \frac{z}{7} = 8$, find x, y and z .
 $z - \frac{x}{2} = 10$

$x = 8, y = 10, z = 14$.

5. (a) Simplify $\sqrt[5]{(-32x^{10}y^{15})}$; and

(b) Extract the cube root of $108x + 90x^2 - 8x^3 + 48x^4 - 60x^5 - 80x^3 + 27$.

5. (a) $-2x^2y^3$

(b) $12x^4 - 24x^3 + 16x^2$

$12x^4 - 48x^3 + 48x^2$
 $-18x^2 + 36x + 9$
 $12x^4 - 48x^3 + 30x^2 + 36x + 9$
 $-8x^5 + 48x^5 - 60x^4 - 80x^3 + 90x^2 + 108x + 27$
 $-8x^6$ *Ans.* $(-2x^2 + 4x + 3)$
 $48x^5 - 60x^4 - 80x^3$
 $48x^5 - 96x^4 + 64x^3$
 $36x^4 - 144x^3 + 90x^2 + 108x + 27$
 $36x^4 - 144x^3 + 90x^2 + 108x + 27$

GEOMETRY.

9.00 TO 10.00 A. M., THURSDAY, 8TH JULY, 1897.

(Only five questions to be answered.)

1. (a) What is a rhombus? (b) Write out the general enunciation of Euclid I. 24. (c) Which of the axioms in your book according to your opinion might be placed among the postulates with the least objections, and why?

In Euclid there is much confusion of definitions, axioms and postulates. If in the first place it required the genius of a Helmholtz to make clear the distinctions between them it is manifestly impossible for the ordinary academic student to understand them fully. Axioms may, however, be considered as relating to magnitudes; and postulates, to space; so that the 4th, 5th and 6th axioms might be classed as postulates.

2. Let B C D be an angle. Bisect it by a straight line C K, and prove the correctness of your construction.

Book I, 9.

3. The sides of a parallelogram are 12 inches and 8 inches; and the perpendicular distance between the two longest sides is 5 inches. What proposition of Euclid shows how you can find its area by the aid of Arithmetic? Find the area, and explain briefly the reason of your method.

Book I, 36. The area of the parallelogram would be equal to that of the rectangle on the base 12, equal to 12×5 .

4. B C D and F G K are two triangles which have their bases B D and F K equal, and the two angles at B and D equal respectively to those at F and K. Show that the triangles are equal in area. Are they equal in any other respects?

Book I, 26.

5. The triangle M N P has its base M P produced to Q. The exterior angle N P Q is equal to a right angle. Prove that the side M N must be greater than N. P.

The angle N P Q is greater than the angle N M P (I, 16). But the angle N P Q = the angle N P M (I, 13). Therefore the angle N P M is greater than the angle N M P. Therefore N M is greater than N P (I, 19).

9. If in the above triangle N M is equal to the algebraic quantity a , and N P equal to b ; what will the base M P be equal to algebraically according to the facts proven in Euclid I, 47.

Ans. $\sqrt{a^2 - b^2}$.

7. The straight line which joins the middle points of two sides of a triangle is parallel to the base, and equal to the half of it.

Let N M P be the triangle and A and B the middle points on the sides N M and N P.

Then the triangles A B M and A B P are each equal to the triangle A B N (I, 38) and therefore equal to each other. Therefore A B is parallel to M P (I, 39). Draw B C parallel to A M. Then A B can be shown equal to C P (I, 26) and equal to M C (I, 34).

GEOGRAPHY AND HISTORY.

2.00 TO 3.00 P. M., FRIDAY, 9TH JULY, 1897.

(Only five questions to be answered.)

1. Describe the Anglo-Saxon methods by which accused persons could prove their innocence.

2. Sketch the career of Henry V. or Richard III.

3. Write notes on Domesday Book, Constitutions of Clarendon, Magna Charta, Provisions of Oxford, Mise of Lewes, Battle of Bosworth Field.

4. Explain the terms: *Monarchical, responsible, representative, federal*, as applied to the form of government in the Dominion of Canada.

5. Name the counties of Nova Scotia and New Brunswick through which the Intercolonial Railway runs. Name and locate the chief cities of Ontario; or, write a note on the railways of Canada.

6. Give as full a description as you can of the *industries, exports and imports* of the British Isles.

7. Describe any one of the following: Spain, Greece, Holland, Russia, California or Cuba.

(Answers can be readily obtained from the text book).

N. B. Normal School Entrance Examinations.

With Notes and Explanations.

Class I. GEOGRAPHY. Time, 1 hr. 45 min.

1. Where are the following, and what interest, present or recent, is attached to each, viz.: Canea, Rossland, Rhodesia, Larissa, Delagoa Bay, The Transvaal, The North Frigid Zone.

2. Draw a memory map of any one of the following, viz.: (a) Australia, (b) the seat of the recent Turco-Grecian war, (c) the New England States, (d) Scotland. In any map drawn mark all important physical features and towns.

3. Name the five largest islands in the world, exclusive of Australia, in the order of their area. Give two important facts in the general geography of each.

4. Describe the canal systems of Canada, and show their commercial importance.

5. State the resemblances and differences between the Continents of Asia and Europe in respect to direction of mountain chains, plateaus, plains, slopes, peninsulas, length and direction of chief rivers, variety and extent of natural resources.

6. Starting from England, show that "her morning drum-beat circles the globe," by naming colonies, fortified towns, naval and coaling stations.

Questions 1 and 4 and the questions in history below show the importance of keeping children in touch with what is going on in the world. It would be a good plan to have ten minutes devoted each morning, where daily newspapers circulate, to a discussion of the chief events of the previous day, with frequent references to blackboard and map. Where weekly newspapers circulate, it would be well to have a half hour on Friday or Monday devoted to this purpose.

In map-drawing have frequent exercises of five or ten minutes for drawing an outline of countries like those named in question 2, with bold outlines, filling in a few of the chief physical features and important places.

Class I. HISTORY. Time, 1 hr. 45 min.

A.—CANADIAN.

1. When and where were the first Spanish, French, Dutch and English settlements made in America.
2. Give a summary, in chronological order of the course of events in the history of Canada from Champlain to Montcalm.
3. Write an account of the causes, events, and results of the war of 1812.
4. Write brief notes on Frontenac, Pontiac, Earl Durham, Papineau, Howe, Sir John A. Macdonald;
or,
5. Write a summary of the political history of the last year.

B.—BRITISH.

1. Describe the Conquest of India. How is it related to the Conquest of Canada?
2. Describe the expansion of the British Empire within the last century;
or,
3. Contrast the Empire of 1837 with that of 1897.
4. What share did England take in the Turco-Grecian war?
5. What is meant by Preferential Trade? The Concert of Europe.

Classes II. and III. HISTORY. Time, 1 hr. 45 min.

B.—CANADIAN.

1. Describe the chief events in the history of Acadia between 1700 and 1760.
2. Give a summary of the leading events in the history of Canada from the death of Champlain to 1700.
3. Write short notes on LaSalle, Frontenac, Sir William Alexander, Sir Howard Douglas, the Earl of Aberdeen, Hon. Wilfrid Laurier.

B.—BRITISH.

1. When did Britain become England, and how?
2. Describe the Norman Conquest.
3. Write an account of the life and times of Cromwell.
4. Give a summary of the reign of Queen Victoria.

For writing summaries, such as those required to answer most of the above questions, pupils should be required frequently to make a brief outline of the leading events in their history lesson, detailing the chief points only—the best one to be written out on the blackboard, either for general criticism or to serve as a model. Such outlines are a good practice in rapid composition writing, and they train pupils to distinguish important events from those that are unimportant or trivial.

Singing is as natural to man as speaking, and for any reason that appears to the contrary, it should be as universal.—*James Currie.*

SCHOOL AND COLLEGE.

Thanksgiving Day is on Thursday, November 25th.

St. John appears to be the only city in Canada in which University Extension lectures have been maintained with any degree of permanence. The course this year was opened by Prof. Davidson, who is giving a series of lectures on the Commercial Relations between Great Britain and her Colonies. The subject is of great interest, and Dr. Davidson, who has devoted special attention to this and kindred subjects for many years, has already enlisted the keenest interest on the part of his class by the clear presentation of his facts and the force and precision of his argument.

Miss M. E. Knowlton, of the St. John High School, who makes her début as a University Extension lecturer this year, is giving lectures — or, as she modestly calls them, “talks,” — on Browning, to the evident enjoyment of those who would obtain a clearer insight into the masterpieces of this poet.

The second course in January and February will be awaited with great interest from the fact that three St. John editors — J. V. Ellis, M. P., of the *Globe*, Jas. Hannay of the *Telegraph*, and S. D. Scott of the *Sun*, will, in two lectures each, deal with important epochs of Canadian history, and Prof. Stockley will deliver a course of eight lectures on Molière.

The Truro normal school has re-opened this year with over a hundred students in attendance, and there is every indication that the year will be a successful one, to judge from the unabated energy which Principal Calkin still brings to his work, and the earnestness which seems to characterize the efforts of his colleagues and the students under their charge.

Schools in New Brunswick will close this year for the Christmas vacation on Friday, December 17th, and re-open on January 3rd, 1898. In Nova Scotia they close Thursday, December 23rd.

Miss Jessie Dickie, teacher at Caithness, Charlotte County, assisted by friends, has raised fifteen dollars, with which slate blackboards and needful apparatus have been procured for the school.

Miss Maggie Thomson, for two years one of Summerside's most popular teachers, has resigned her position much to the regret of her associate teachers and the school trustees. She is succeeded by Miss Agnes Ramsay.

Miss Mabel Morrell, teacher at McMinn, Charlotte County, has, by a recent school entertainment, raised enough money to procure some necessary maps.

Miss Mary B. Conley, former teacher at Bay Road, Charlotte County, has been able to furnish her school with a fine flag and maps.

Miss Annie M. Hyslop, teacher at Tower Hill, Charlotte County, has, by means of a concert, raised enough money to fence neatly her school grounds and otherwise to add greatly to her school appointments.

Miss Sarah M. Daly, teacher at Carter's Point, Westfield, Kings County, has raised sixteen dollars by means of a school concert. She proposes to fence her school grounds in a manner that will be an example to surrounding districts.

The house at Coldbrook, St. John County, has been thoroughly repaired and furnished with a hardwood floor. The teacher, Miss Maggie Donovan, has also raised enough money to provide blackboards of slate, an imperial map of the world, and some new seats and desks.

The trustees of Elmsville, Charlotte County, at the last annual meeting obtained a vote to start a school library. Mr. C. H. Acheson, a former pupil, has added a generous contribution. The example of this district is one worthy of imitation.

Inspector Carter will be engaged during the months of November and December with schools in the City of St. John.

Through the exertions of Miss Sarah Scullin, teacher at Bonny River, Charlotte County, slate blackboard surface has been procured.

D. J. McLeod, Esq., Superintendent of Education, P. E. Island, delivered his popular lecture, "The Old Log School-house," to a large and appreciative audience in Brookfield Hall on Thursday, the 14th ult.

Prof. Shaw, of Prince of Wales College, Charlottetown, has successfully passed the matriculation examination for the university of London.

The school-house at Castalia, Grand Manan, was recently burned. The rate-payers at the annual meeting voted money to build a new one.

Judge Trueman, accompanied by Supt. Bridges, has been visiting the Boston schools to gather ideas for the St. John schools, and incidentally to find out what is wrong with the ventilation system in the new high school, which does not work satisfactorily.

During November and December Inspector Mersereau will continue his work among the ungraded schools of Northumberland County.

Principal Hetherington has had issued a neat catalogue of books in the Bathurst grammar school library. This library consists of 405 volumes, nearly all standard works, gathered during Mr. Hetherington's incumbency, and mainly through his efforts.

New school-houses are being built at Lepreaux and Richardsonville, Charlotte County.

Mr. John A. Gillis, teacher at Montague Bridge, P. E. Island, on retiring from the teaching profession, was presented with addresses by rate-payers and pupils, accompanied with valuable gifts.

We regret to have to record that Mr. Matthias Smith, teacher of Emerald, P. E. Island, met with a painful accident while driving a short time ago—his horse taking fright and upsetting the carriage, giving him a bad shaking up, with a highly disfigured face.

The Teacher's Association of Charlottetown have sent Miss Scott, Miss Finlayson and Miss Farmer as delegates to represent them at the formation of the Local Women's Council.

We regret to learn of the death of Mr. Edison Stavert, teacher at Freetown, P. E. Island. The deceased was a very bright and popular teacher, and was highly esteemed by the people of Freetown.

The Charlottetown Business College was favored recently with a visit from the Superintendent of Education. In his admirable address the superintendent complimented the students on the interest taken by them in their work, and Principal Miller on the excellence of the work performed.

R. E. Stevenson, Esq., who has taught the P. E. Island, New Glasgow, high school, has resigned his position to take a course in the Kentucky University. On the eve of his departure he was presented by his pupils with a costly watch chain and charm, accompanied by an address.

Inspector Murphy, of Kings County, P. E. Island, after a protracted illness, died at his home, Souris West, on Monday, the 11th ult. Mr. Murphy was a painstaking official and an indefatigable worker. Appointed to the position of school inspector at an early age, he entered upon the duties of his office with much zeal, and performed the work of inspection to the satisfaction of the department.

BOOK REVIEWS.

A WORKING SYSTEM OF CHILD STUDY FOR SCHOOLS, by M. P. E. Groszman, Ph. D., late Superintendent of the Schools of Ethical Culture, New York. Pages 70, price 50 cents. Publisher C. W. Bardeen, Syracuse, N. Y. This is an important book for teachers, dealing with the problems of daily occurrence in the life of the child at school. No parents or teachers can read such a book without realizing in a great degree their responsibility, and forming a clearer estimate of the right plans to be pursued in the proper training and development of child nature.

A MANUAL OF COMPOSITION AND RHETORIC, for use in schools and colleges, by John S. Hart, LL. D., revised edition by Jas. Morgan Hart, Professor of English Philology and Rhetoric in Cornell University, N. Y. Pages 341, price one dollar. Publishers Eldredge and Brother, Philadelphia. This book has several claims for recognition. For nearly a third of a century the original edition has been a standard text book in schools; the present edition adds several new features in addition to treating more concisely and with greater simplicity the text of the preceding edition; the arrangement is admirable,—direct, practical and clear, especially in its treatment of English composition. As a reference book teachers and advanced students will find this meets their requirements to an extent that very few text-books on this subject even approach. The orderly arrangement of the subjects and the clearness of the text are excellent features.

MACMILLAN'S ELEMENTARY LATIN-ENGLISH DICTIONARY, by Rev. G. H. Nall, M. A., assistant master at Westminster School. Pages 432; price 3s. 6d. This has been prepared to meet the wants of young pupils. It is printed in much larger and clearer type than is usually found in dictionaries, which is a very great advantage. It is sufficiently full of examples of words to meet the requirements of those reading Cæsar, Sallust, Nepos, Livy, Cicero, Virgil, Horace, Ovid and some others, and its definitions while concise are sufficiently full.

A HISTORY OF ROME FOR BEGINNERS, by Evelyn S. Shuckburgh, M. A., late Fellow of Emanuel College, Cambridge. Pages 339; cloth; price 3s. 6d. This presents a history of Rome from its foundation to the death of Augustus. It is a very compact and clearly printed volume, with such abundance of maps and illustrations as will make the book pleasing and profitable to young students.

LESSONS IN PLANT LIFE, for little children, by Mrs. H. H. Richardson. Pages 114, price 40 cents. Publishers B. F. Johnson Publishing Co., Richmond, Va. This is an attempt, from the author's own teaching and experience, to make young pupils acquainted with the elements of botany. It insists on original work for the pupil—in observation, drawing, language and a systematic arrangement of the simple principles taught. It is well adapted to stimulate teachers to a better presentation of plant life to young pupils. It is a neatly printed volume, with clear type, but with a crudeness and lack of naturalness in its illustrations.

NOVEMBER MAGAZINES.

The opening contribution in the *Atlantic Monthly* is a review of the new *Life of Tennyson*. The reading public of both the Eastern and Western Hemispheres has been looking forward with interest to the publication of the authoritative life of the great poet by his son. This is an important literary event, and the *Atlantic* publishes, by special arrangement, the first extended review of this notable book... An Experiment in Citizen Training, in *Popular Science Monthly*, describes an experiment in education among the poorer classes of New York, which has, it seems, been in progress for the last four years, and is now far enough advanced to present results worthy of study... The *Forum* is well to the front this month with a varied and excellent table of contents. Sir Lewis Morris, the eminent English poet, contributes a pleasing paper on *The Disuse of Laughter*, in which he argues that the good honest laugh is dying out... The November number of the *Century* begins a new volume of that magazine. A new serial novel of New York life, *Good Americans*, is begun and will run for half a year... With the November number, *St. Nicholas* begins a new volume, and enters upon its twenty-fifth year. A *Funny Little School* is an account of a little colored girl who teaches a class of "uncles" and "aunties" many times her own age, and gets much amusement from it, for herself as well as for the reader... The current number of *The Ladies' Home Journal* (Philadelphia) is bright with illustrations and replete with articles of interest to ladies... The contents of *McClure's Magazine* (S. S. McClure Co., New York City) are of an unusually high order of excellence for this month... The *Chautauquan* has two articles of great interest to teachers: *Goethe, His Life and Work*, and *The Friendly Letter*... *The School Review* contains *Field Work in Geology and Physical Geography*, being a supplement to *The Teacher's Outfit in Physical Geography* which appeared in the March and April numbers.

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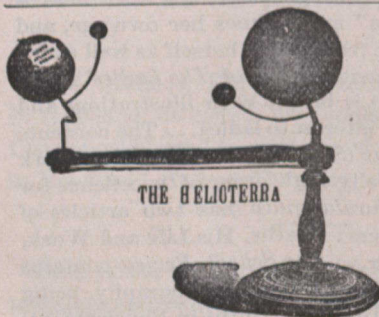
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