

THE EDUCATIONAL REVIEW.

FOR THE ATLANTIC PROVINCES OF CANADA.

VOL. XII. No. 8.

ST. JOHN, N. B., JANUARY, 1899.

WHOLE NUMBER, 140.

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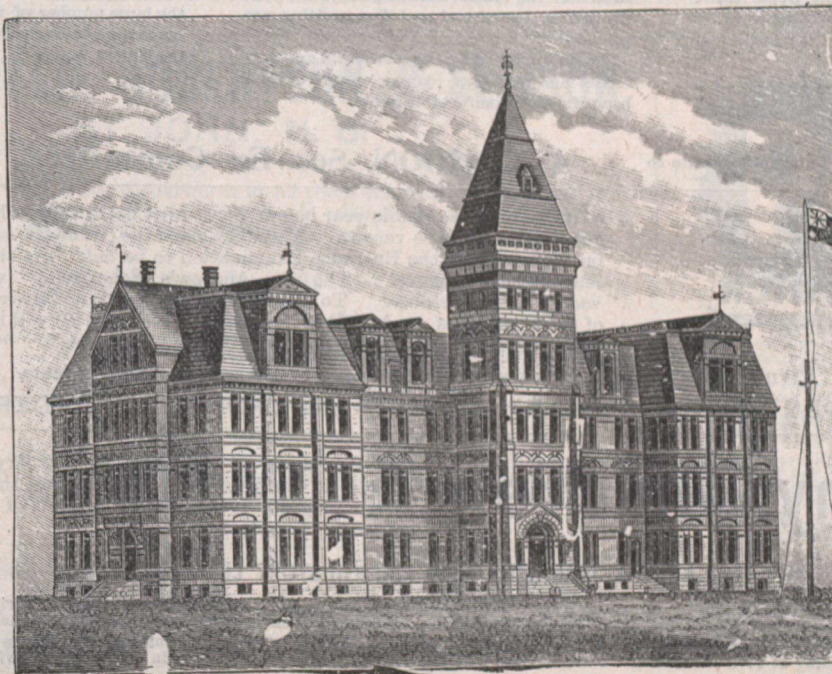
Session begins
September 1st,
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PUBLISHED MONTHLY.

ST. JOHN, N. B., JANUARY, 1899.

\$1.00 PER YEAR

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Editor for New Brunswick.

A. McKAY,
Editor for Nova Scotia

THE EDUCATIONAL REVIEW.

Office, Room 9, Bayard's Building, Prince Wm. Street, St. John, N. B.

PRINTED BY BARNES & Co., St. John, N. B.

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Always Read this Notice.

THE EDUCATIONAL REVIEW is published about the 10th of every month. If not received within a week after that date, write to the office.

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Beginning with February and March the number on the wrapper with your address tells to what whole number of the REVIEW the subscription is paid.

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EDUCATIONAL REVIEW,
St. John, N. B.

THE programme of the Summer School of Science published in this number will be read with great interest. The scenery of the Restigouche with a fortnight's outing there should be a great attraction.

STUDENTS will be interested in the advertisement of Kings College published on another page. This college confers degrees on students who pass the required examinations, whether the work is done at home or in the college.

WE are indebted to Mr. R. E. Gosnell, librarian of the legislature of British Columbia, for the annual report of the Board of Trade of that province—a finely illustrated volume, full of information.

INSPECTOR MERSEREAU will visit in January, if weather and roads permit, those schools in Northumberland and Gloucester Counties which were not visited last term.

THE Society for Plant Morphology and Physiology met at Columbia College, N. Y., Dec. 27th, and con-

tinued in session four days. Dr. W. F. Ganong, who is the secretary of the society read two papers on special subjects.

DR. J. V. ELLIS, M. P., of St. John, gives for four years, an annual scholarship of \$50, to the student who may need such help on entering the University of New Brunswick. Such an example is worthy of imitation.

MRS. WELLS, widow of the late Dr. J. E. Wells, has opened in London, Ontario, a Collegiate School for girls, named "Harding Hall" in memory of the loving friendship which existed between her husband and Dr. Theodore Harding Rand. Miss Blanche Bishop, M. A., of Wolfville, is one of the staff; and the school opens with excellent prospects.

THE honor of knighthood has been bestowed upon W. C. McDonald, the tobacco millionaire of Montreal, in recognition of his princely benefactions to McGill University. These amount, in the aggregate, to over two and a quarter millions of dollars; while those of Sir Donald Smith amount to nearly one and a half millions. Such gifts are a credit to Canada and to the fine university which is so worthy of them.

Over a year ago Acadia University started out to raise \$75,000. The Chicago millionaire, John D. Rockefeller, promised to contribute \$15,000 of this if the remaining \$60,000 were paid in cash or valid pledges by the first of January, 1899. Over \$63,000 have been raised by the friends of Acadia, so that the \$15,000 promised by Rockefeller is secured. The greater part of the money has come from the people of the Maritime Provinces in sums varying from \$5,000 to five dollars. Many of the small givers to this "Forward Movement of Acadia" have no doubt made greater sacrifices than either Sir William McDonald or Sir Donald Smith. But still one has to acknowledge that we need to be educated into a systematic giving to our institutions of learning. They ought not to be made to wait for millionaires' gifts which are like angels' visits. If a small fraction of the money which many people are selfishly hoarding or spending on themselves were spent on our half dozen colleges they would soon be in a position to enlarge their courses of study, increase their

equipments and do far more effective educational work than they can hope to do with their present narrow incomes.

No SYSTEM of promotion in graded schools is entirely satisfactory in its working; but that outlined on another page by Principal Foster, who has given much attention to this subject, has this merit in its favor, that it leaves with the teacher to a great extent the power of forming a sufficient estimate of the pupil's progress. And this places the responsibility where it naturally belongs; for no one else can judge of the pupil's fitness for promotion better than can his teacher. But the judgment of the too careless or the too conscientious teacher may both be at fault in advancing too readily or restraining pupils at the time of grading. The plan proposed would obviate this difficulty by calling in other expert opinion.

We hope to hear this subject of grading discussed fully, and even on broader lines than our correspondent has taken. Is our system of promotion flexible enough? If a scholar is kept too long in one grade simply because he is deficient in a certain subject, say arithmetic, is it not a manifest injustice to him? Should not our system of grading be elastic enough to allow grading according to ability? Would it not be a stimulus to everybody, including the teacher? Would not dull pupils as well as bright ones be spurred to greater effort, if they were moved forward as soon as they are prepared? or at least put to doing something outside the regular course.

IF that man is regarded as a public benefactor who makes two blades of grass grow where only one grew before, surely he who gives us a short and effective method to study a language, instead of a cumbrous and roundabout way, is equally entitled to our gratitude. It might be expected that those who spend from four to eight years in our schools in the study of Latin would be able to read easy passages at sight. But nine out of ten pupils are not able to do so. Further, they acquire a distaste for a study where so much time is taken up, as is usually the case in studying Latin or Greek, in memorizing rules, declensions and conjugations. Among the methods to acquire a good working knowledge of Latin in a comparatively short time is the De Brisay system, the aim of which is to enable students to read, write and speak Latin from the beginning of their course. Such a method, where the student may acquire a fair working knowledge of the language and a considerable acquaintance with the best Latin authors in a way that arouses the interest and pleasure at every step, ought to be worthy of the greatest consideration at a time when Latin is in danger of being excluded from many of our schools, not from a lack of appreciation of its many advantages, but from the unnatural and time-wasting methods used in acquiring merely a scanty and insufficient knowledge of it. We commend to the attention of our readers the De Brisay method, which already in the Maritime Provinces has over a hundred students engaged in the practical application of its principles to the study of Latin. A similar method is applied to the study of French.

NUMBER FOUR of the EDUCATIONAL REVIEW Series of Leaflets on Canadian History has been published and is even more interesting to the student than previous numbers. The opening article, by Mr. George Johnson, Dominion Statistician of Ottawa, is on Place-Names, and he shows what a wealth of interest and meaning is attached to such names in every section of Canada. Referring incidentally to Greenland he gives, together with a reason for the name, a most interesting history of that northern region which will be new to most of our readers. Mr. J. Vroom writes on the life and characteristics of the French *habitant*, quoting largely from Roberts' History. Miss Frances E. Murray gives in picturesque language the remarkable story of Laura Secord. Prof. W. F. Ganong, in an illustrated article, gives some interesting facts about early explorers and maps, and shows by a series of four of these how crude were the early attempts at map-making. It will be interesting for the student to compare these with the maps of modern times. Mr. Victor H. Paltsits, of the New York Public Library, writes on the attempted Conquest of Canada in 1746. The article is of great value to the student of history as it may serve to show the methods of the historian in pursuing his investigations and his plans of making notes. As these Leaflets come to be used more and more by teachers for supplementary readings their value will be increased, and boys and girls will see what a wealth of interest lies in the study of our own history.

THE Roman pronunciation of Latin and the accentual pronunciation of Greek are henceforth to be imperative in all the public schools of Nova Scotia. The largest academies and high schools adopted the standard pronunciation some years ago, as well as the leading universities. We presume that uniformity in the pronunciation of the ancient classics will now be universal throughout the province.

THERE has been a notable contest going on in Chicago between Superintendent Andrews and the school board over the matter of appointments. The Superintendent insisted that appointments should be made upon merit alone, while the members of the board were equally determined that they would continue to exercise the powers of patronage. A crisis arose over the appointment of a principal for one of the night schools. The candidate having the "pull" obtained the position over the more competent one recommended by the Superintendent. Dr. Andrews' resignation was soon on its way, but such was the public sentiment aroused by the action of the board that it was forced to re-consider, with the result that the Superintendent will in the future have the authority to select his own teachers. This, coming from Chicago, inspires the hope that a better day is dawning for the schools everywhere. Unscrupulous and self-seeking school boards have too long victimized the taxpayers under various specious pretexts, and the action of Chicago and other cities, where the appointment of teachers has been placed in the hands of experts, will bear fruit in many places.

Educational Advance in Nova Scotia.

The *Journal of Education*, the official organ of the Council of Public Instruction for Nova Scotia, in the last issue, November 17th, gives notice of some important improvements in the school regulations.

It is made imperative that all candidates for teachers' licenses shall be required to make at least thirty-three per cent on each imperative subject in the high school course up to and including the grade corresponding to the class applied for. Now as the subjects in the different classes vary somewhat, and as there is no provision by which a candidate can be examined in more than one grade each year, this regulation implies that the successive grades must be taken in successive years. For example, three examinations covering three years would be required for Grade B. Under the old regulation a teacher might obtain Grade B without having passed an examination in chemistry, mineralogy, botany, drawing, or book-keeping, — all subjects of great importance. This was a serious defect which has now been remedied. It is sometimes a hardship, however, for a candidate to have to wait one, two, or three years to obtain a grade for which he may be prepared at the time. He should be allowed a supplementary examination on those subjects of the lower grades which do not find a place in the grade for which he is applying. This regulation, requiring thirty-three per cent, does not apply to Normal school graduates who are, therefore, not required to be as good scholars as those of the same class, who have not attended the Normal school.

A proper certificate, showing that a pupil has made satisfactory proficiency in woodwork, cookery, or sewing, is taken in "lieu of the full value of any question on such work in the County Academy Entrance Examination." This important regulation helps to give manual training in our schools the higher status to which its educative value entitles it. The advisability of supplementing the ordinary written examination by actual laboratory work, or by satisfactory certificates of the same, is now more fully recognized,—a notable advance which inspires the hope that in the near future it may be possible to have practical science in place of book-science,—realities instead of mere words. Nova Scotia is to be congratulated on taking the lead among the provinces of the dominion in recognizing this important principle.

The twenty-third of May has been set apart as "Empire Day" in the schools. It is to be specially devoted to the cultivation of feelings of loyalty and attachment to our country, and to the institutions under which we live. It is expected that a British flag shall float over every schoolhouse in the land, that British or Canadian history lessons in the forenoon, and an interesting programme of patriotic songs, recitations, and speeches from local celebrities in the afternoon, shall inspire the pupils with deeper love for home, and country, and humanity. Teachers are expected to report to the inspector as to the manner in which the day was observed in their schools.

The text-book in formal grammar has at length been sent where it belongs—to the high school, and in its place, in the common school grades, we have in the hands of the teacher "Lessons in English," showing how by systematic practice the pupil is to become proficient in the use of his mother tongue. The arm-chair subjects are every year becoming less popular, as teachers are becoming alive to their work. We cannot help thinking, however, that a simple ten-cent primer of English grammar might still be useful. Our teachers generally have not yet obtained that mastery in their profession which makes them largely independent of the text-book.

TALKS WITH TEACHERS.

A school trustee remarked to me a few days ago, "You speak about progress in education. How do you explain the fact that twenty-five years ago many pupils went direct from our schools to business offices, whereas now, it is first necessary for them to take a course at a business college?" I replied, that twenty-five years ago such subjects as shorthand and type-writing were not required in business offices and that our schools had not made provision for such demands.

There are so many demands being made upon the schools, and the courses of instruction are already so crowded, that it is dangerous to open the door for any new departments. As we have always professed to give pupils a business education, it would seem that the high schools at least should keep pace with the requirements of commercial life. A strong indication of the demand for such is the number of business colleges that are springing up in all cities and small towns.

Another case of corporal punishment has been ventilated in New Brunswick, and it is said that recourse is to be had to the courts of law. A recent decision rendered in the United States, seems to be accepted there as covering all cases.

"Any corporal punishment commensurate with the offense is allowable, providing that no permanent bodily injury is inflicted: if the pupil resists he must take the consequences of so doing."

This subject has been pretty fully discussed in these "Talks" before, and it is sufficient to remark: avoid using corporal punishment in as far as possible; do not use it for any other reason than for offences against the morality of the school.

Advertising for teachers is not so common as in former times, not that fewer teachers are required, but that school boards have discovered more satisfactory means of securing them. A few such advertisements appear from time to time, and the past year has been no exception. Specimens may be given. In one, several teachers were required, and limit was placed upon the time in which they were to be received. Applicants were asked to "state salary." It is said that nearly every teacher within a radius of fifty miles applied whether he was provided with a school or not, and that some of them were very indignant, after two-thirds of the vacation had expired and no replies had been received. What could be expected of the business methods of a district that is willing to put its schools up at auction? In the other case a teacher was advertised for and the *salary stated*. The matter was decided promptly, and from

the inquiries made by the board no doubt a good man was secured. No teacher's chances of securing another school were put in peril by unnecessary delay.

Beware of all advertisements that ask you to state, as it is sometimes put, "lowest salary." They are the schools that are looking for "something for nothing," and they seldom think they secure it.

There is a point of etiquette upon which teachers are very remiss. It is not intentional on their part, but its consequences are none the less awkward.

After applying to an inspector for a position they should drop him a postal if in the meantime, unknown to him, they accept another position. It may be two or three weeks before he is in a position to reply. If, through his direction, they secure a school, they should notify him also, as, if negotiations have failed and no notification sent, a district may be left for some time without a teacher, and this has occurred many times.

Also please instruct trustees upon the following point: While they are under no obligation to apply to the inspector for a teacher, nor to accept one of his selection, yet the most intelligent ones do so because of his better opportunities of judging of teachers' merits. If they do so, they should in justice to him and the teacher whom he asks to apply, defer appointment until a reply has been received, and give the preference to that candidate. It makes an inspector feel very foolish to direct a teacher to apply for a school at the request of a school board, and to find that perhaps the same day the trustees have written him, another has been engaged.

Teachers very often write inspectors asking for certificates and perhaps feel hurt at not receiving them. No inspector is safe in giving an open certificate, as in a few years, conditions may have entirely changed, but the recommendation is still supposed to hold good. Again, a request is frequently made to write a school board regarding a teacher's qualification. This may be done if it is known that such information is desired, but the better way is to refer the school board to the inspector, when if it wishes information it can write and request it. This is the course now pursued in nearly all cases.

In January.

How can a little child be merry
In snowy, blowy January?
By each day doing what is best,
By thinking, working for the rest;
So can a little child be merry,
In snowy, blowy January.

—Sel.

NATURE STUDY.

Snow in Literature.

(A sequel to "Nature Study" in December REVIEW, page 131)

New Year day is well remembered by all the scholars although it was in the midst of the two weeks of holidays. Along the Atlantic coast the breath of the ocean was being chilled by an air wave coming from the far north. The fine specks of vapor in countless myriads were creeping into smaller and smaller size within their watery skins, until when the temperature fell to 32° Fahrenheit, each one suddenly blossomed out or exploded into a beautiful six-rayed fairy star of the brightest white. The wind carried them inland while they were still growing, each ray becoming longer and sending out still finer branches from their sides from the remaining moisture in the air in which they were floating. The moving air was several miles in depth, and as it went speeding on, some parts moved faster than others, and the crystal stars while floating in order several miles each hour, were also slowly whirling, now this way now that way, and running into each other they became entangled in great white flakes. Denser squalls of these could always be seen stalking over the water like great sheeted ghosts whose heads were lost in the gray clouds above, rushing up on to the land, over fences and fields and buildings and into the forest beyond. A muffled roar as if each of the myriad sheeted spectres were wailing its own particular dirge from pianissimo to fortissimo, filled the air and took possession of the senses. In the midst of this weird harmony in minor key but mighty mood, the storm spectres dashed themselves against the buildings into a sheet of spray, sliding over the roof and hiding in the lee, or scudded across the bare frozen furrows until they leapt the fence, where so many were tripped that a white bank grew up on both sides all along the line—banks of the spectres bones, the fairy snowflakes. The woods, the glens and the roads were piled up with them, and when the storm ceased the whole country was covered with a dazzling white tombstone, carved by the north-wind into fantastic forms, with epitaphs written in the wind language whose native home is around the Pole. While waiting for the resurrection of the buried provinces let us see how the snow has appeared to other people.

T. Further south than we are, between the Mediterranean and the Persian Gulf, and perhaps 3,000 years ago, a poet sang of the snow as follows:

He giveth snow like wool;
He scattereth the hoar frost like ashes.
He casteth forth his ice like morsels:
Who can stand before his cold.

—Hebrew Psalm, 147: 16, 17.

What can you say about the passage?

S. He tells what the snow was like. As snow is always white when it falls, we can learn that wool was generally white in that country, for the snow is likened to it. Wool is light, and so was the snow, just as it is here. The hoar frost covering the ground looks grayish like ordinary ashes, as the skiff of frost is always thin. The ashes of the poet's time and place must be grayish, as they generally are at the present time—when they are wood ashes more especially.

S. Hailstones are spoken of as junks of ice. They must have had hail storms there too.

S. And it must have been very cold sometimes, for no one is supposed to be able to resist the cold. I suppose they would have to go into a house, or cover themselves up with extra clothing.

S. As in Job's time, the phenomena are referred to as something inexplicable, as something done by God, as a miracle.

T. Well, perhaps so, we feel as if we would like to have more references to the phenomena in these times, in order to be able to picture fully what the world looked like then and there. Now let us take a Swedish picture: *Fridthjof at Sea*—

From the cold sky's field
Snows intense prevail,
And on deck and shield
Rattling storms of hail.

Lo, o'er all the vessel flying,
Night has placed her sable pall,
As in rooms where dead are lying,
Gloomy darkness covers all.
Wave implacable now lashes
Toward his doom the sailor brave,
White-gray as with sifted ashes
Frightful yawns a boundless grave.

—Tegner's "Fridthjof's Saga" (Holcomb).

S. "White-gray as with sifted ashes" is very like the Hebrew comparison we had.

T. And there are many other very evident thoughts suggested by the passage; but we must go on with as many of the passages which you have found as we have the time for.

S. Announced by all the trumpets of the sky,
Arrives the snow, and, driving o'er the field,
Seems nowhere to alight; the whited air
Hides hills and woods, the river, and the heaven,
And veils the farmhouse at the garden's end.

—Emerson—*The Snow-Storm*.

T. What is the boldest figure here?

S. The sound of the storm coming from the trumpets of the sky, I suppose.

S. Through the sharp air a flaky torrent flies,
Mocks the slow sight, and hides the gloomy skies;
The fleecy clouds their chilly bosoms bare,
And shed their substance on the floating air.

—Crabbe—*Inebriety*.

T. The boldest figure here?

S. The clouds baring their chilly bosoms.

S. Out of the bosom of the air,
Out of the cloud-folds of her garments shaken,
Over the woodlands brown and bare,
Over the harvest-fields forsaken,
Silent, and soft and slow
Descends the snow.

—Longfellow—*Snow-Flakes*.

T. Here we have the cloud folds of the bosom of the air shaken out. But don't mistake the poet's picture to mean that the store-houses of the snow are the folds of the garment, much less that this is a scientific explanation of the origin of snow.

S. This passage is poetic and it comes one step nearer the scientific conception of the origin of snow, I think, and is none the less beautiful on that account:

Lo, sifted through the winds that blow,
Down comes the soft and silent snow,
White petals from the flowers that grow
In the cold atmosphere.
These starry blossoms, pure and white,
Soft falling, falling, through the night,
Have draped the wood and mere.

—George W. Bungay—*The Artists of the Air*.

T. Very good. That poet has seen the snow crystals, and in his mind's eye sees them growing in the atmosphere. And he sees all that others see also. But our time is up. One more passage—picturing the scene when the storm is over, if you have got one.

S. One from Emerson:

Come see the north-winds masonry,
Out of an unseen quarry evermore
Furnished with tide, the fierce artificer
Curves his white bastions with projected roof
Round every windward stake, or tree, or door,
Speeding, the myriad-handed, his wild work
So fanciful, so savage, naught cares he
For number or proportion.

T. Very good. Some time we must pick out all the striking figures, and classify them. But it might be a good thing for you to try to make some rhymes on the snow yourselves now. If you do, I suppose some of you will endeavor to describe what you see exactly and literally say, like this:

The crystals of snow came down all day
And on the frozen ground they lay,
Until they heaped up as you see,
In great white banks some two feet three.

These might be all facts true to the letter, and there is good rhyme; but it is not good poetry. We must put the pictures in, the figures, and if they are pretty ones the poetry is pretty. It should be true also. That

is the figures should not lead any one to a wrong conception of the facts.

Wearied of floating, the crystals of snow
Tumbled to rest on the ground below.
There was no room for each, side by side,
So one on the top of the other did ride.
And that is the reason, if I must be frank,
Why the snow stands two feet three in a bank.

Find out what is wrong with this. Then try to do as well as the poets quoted without copying them.

The Heavens in January.

At 10 o'clock, p. m. in the middle of January the array of constellations is the finest that the heavens, in our latitudes ever present. Orion is on the meridian, in the most favorable position for the exhibition of his splendors. The two great stars that adorn his shoulder and his foot, Betelgeuse and Rigel, show their contrast of colors admirably, sparkling through the crisp air. Betelgeuse glows like a Brazilian topaz, while Rigel's light is of diamond purity. Midway between them glitters the Belt with its three bright stars in a row, so accurately spaced and aligned that they seem to have just obeyed the command, "Eyes front!" In themselves they would hold attention, but on a dark clear night the sky about them is seen to be sprinkled with a multitude of tiny stars, whose twinkling affects the eye like half-illuminated frost-work. Below the Belt hangs the sword, sheathed in the mysterious haze of the Great Nebula.

Following the direction indicated by the stars of the Belt, downward toward the left hand, at a distance of some twenty degrees, the eye is led to Sirius, ablaze, if the air be a little unsteady, with prismatic hues. The spectacle of Sirius shining above a snow-clad hill on a January night is a surprising revelation of the power of a star to enhance the beauty of a terrestrial landscape.

Westward from Orion runs the winding "river of stars," Eridanus, with Cetus just setting beyond it, while toward the east, above Sirius, appears Monoceros, followed by the interminable Hydra, dragging its slow length above the horizon.

Next in attractiveness to Orion and his immediate neighbors, which include Auriga, with the brilliant Capella, nearly overhead, is the winter arch of the Zodiac, beginning at the level of the hills in the west with Pisces, and rising through Aries to Taurus (the tip of whose horns touches the meridian above Orion), and then descending in the east through Gemini, Cancer and Leo, to Virgo, whose westernmost stars are just poised on the horizon.

Under Gemini and Cancer, the latter being easily recognized by the glimmer of the beehive cluster, shines Procyon, the leading star of Canis Major.

Glancing northwestward, Perseus, Andromeda, and Pegasus are seen aligned in a downward slope to the horizon, while Cassiopeia's "W" shines between them and the Pole, balanced against the Great Dipper, which is rising, bowl upward in the northeast.

THE PLANETS.

Mercury is a morning star, in the constellation Sagittarius. It reaches its greatest western elongation on January 11, when it may be seen nearly two hours before sunrise.

Venus is a morning star and very brilliant, rising at the beginning of the month, about 4.30 a. m. It travels from Scorpio into Ophiuchus. On the 25th it will be in conjunction with Saturn.

Mars has become the "star" of the planetary company, being in opposition to the sun on January 18, and therefore visible the entire night. It is in the constellation Gemini. On the 15th it will be about 60,000,000 miles from the earth, so that a telescope magnifying 250 diameters will bring it within an apparent distance equal to the real distance of the moon. A comparison of the lunar features seen by the naked eye with those of Mars seen with the telescopic power mentioned, will be an object lesson in the difficulties of planetary observation. This is a very unfavorable opposition of Mars, but its red color and its conspicuous position will serve to attract all eyes.

Jupiter, in the constellation Libra, is a morning star rising at the opening of the month, soon after 2 a. m.

Saturn is also a morning star, in the constellation Ophiuchus. It rises on the 1st about 5.40 a. m., and those who get up early to see Mercury about the 11th will enjoy a sight of the ringed planet also, as well as of the brilliant Venus.

Uranus is a morning star in Scorpio, and Neptune an evening star in Taurus.—*Garret P. Serviss in Scientific American.*

The total eclipse of the moon, December 27th, was viewed with considerable success at the various observatories in Europe and America. The scientific value of the eclipse will be chiefly verifying the knowledge obtained by other methods of the diameter of the moon.

The eclipse was viewed with great success in Berlin. The moon entered into totality at a quarter to twelve o'clock, when the colors became brighter than previously. It was first a dark brown with a streak of yellow; next a reddish brown, and lastly a beautiful combination of colors, as though pierced by the rays of the sun. The

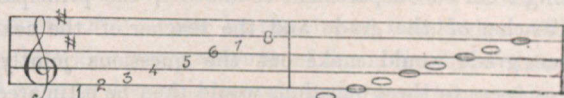
silver-white line then kept spreading, and at twenty-five minutes past twelve it was at the maximum. In every phase the delineation of the moon was visible; that of the shadow of the earth was much less clear. It is stated that Mars became very red during the period, becoming more intense according to the color assumed by the earth's shadows.—*Condensed from Scientific American.*

FOR THE REVIEW.]

Music Lessons in School.—II.

BY LUELLA E. BLANCH.

When the class can sing readily and well the scale of *C* draw once more the staff *G* clef. Place a sig-



nature of two sharps (*F* and *C*) and commence with 1 on the space below the staff. This is the scale of *D*. Teach the class that *do* can be in any position on the staff without affecting the relative values of the tones of the scale; *i. e.*, that the pitch of *do* becomes lower or higher, but the scale of any key is sung in the same manner as the scale of *C*. To illustrate this draw a staff with four sharps as a signature, and *do* on the first line; again, with one flat as a signature, and *do* in the first space, completing the scale in every case, and having it sung by the class. Teach, incidentally, the terms; whole rest, half-note, half-rest, quarter-note, quarter-rest, eighth-note, and eighth-rest. The following may be given as slate exercises: Scales of *D*, *E*, *F*, in whole, half, and quarter-notes; staff, *G* clef, signature of one sharp, whole note, bar, two half-notes and double bar. Teach that each piece of music has a time mark and that this exercise is written in $\frac{4}{4}$ time. Primary classes can make notes, rests, clef, sharps and flats on slates, as a change from ordinary work.

A Wish for the New Year.

May every soul that touches thine,
Be it the slightest contact, get therefrom some good,
Some little grace, one kindly thought,
One aspiration yet unfelt; one bit of courage
For the darkening sky, one gleam of faith

To brave the thickening ills of life,
One glimpse of brighter sky beyond the gathering mists,
To make this life worth while,
And heaven a surer heritage.

—Primary Education.

Be good, dear child, and let who will be clever;
Do noble things, do not dream them all day long;
And that will make your life and work forever
One grand sweet song.

—Kingsley.

FOR THE REVIEW.]

Grading.—II.

BERTON C. FOSTER, Principal Collegiate School, Fredericton.

The law places the power of grading pupils in the hands of school trustees. But no legal enactment could possibly furnish the necessary technical knowledge. So, as was doubtless contemplated by the act, the responsibility rests with them, while the task of determining fitness for promotion has been by them delegated to officials having the requisite knowledge. The only departure from this rule is in grading into the grammar and high schools, where the Board of Education assumes the responsibility, and appoints a board of examiners to hold the necessary examinations and determine the results.

In ninety-nine per cent of these cases the trustees wisely entrust this power to the teacher. The truth of this will be apparent when we remember that of the sixteen or seventeen hundred schools in our province all but a very few are in country districts. In practically all of these the teacher is the sole grading official. Indeed, in the schools even in the cities, towns and larger villages while methods differ, the ultimate power of determining who shall and who shall not grade rests with the teachers; Fredericton and Woodstock, as far as I have been able to learn, being the only exceptions to the rule.

In Fredericton an examiner appointed by the board of trustees grades pupils passing from one department to another; but even here the teacher determines promotions from the lower to the higher grade in his own department. In Woodstock precisely the same system obtains, the principal of the grammar school, however, acting as grading examiner.

In St. John and Moncton the grading is done on the recommendation of the teachers, such recommendation being based on the results of frequent examinations, both written and oral, held regularly during the year. In Newcastle a similar method is pursued, the teacher's recommendation being, however, subject to revision by his principal.

In St. Stephen the idea prevails that the teacher of a department should pass upon the efficiency of pupils coming into his department from the next lower. Thus the teacher of Grades III and IV determines what pupils are fit to pass from Grade II to III, and the teacher of Grades V and VI who shall grade out of IV, and so on, while each teacher grades from the lower to the higher grade in his own department.

The system adopted in St. Andrews appears to me to be so excellent, combining, as it does, so many of the best features of the other methods, that I will take the

liberty of quoting at some length from a letter on this subject kindly sent me by the principal of the grammar school :

The grading of the St. Andrews' schools has, for several years, been conducted in accordance with the following regulations, approved by a joint meeting of trustees and teachers :

1st. The grading shall begin on the third Tuesday in June.

2nd. The pupils shall be examined and marked according to proficiency by the teacher of the grade into which they desire to pass.

3rd. The papers for a written examination shall be prepared by the teacher of the next higher grade, and submitted to the trustees for approval.

4th. If, on announcement of result, a teacher requests a second trial for some pupil, who, through illness, or for other sufficient reason, has failed to qualify, such request may be granted. This request must be made, however, on the day of the announcement.

The date of the examination has since been changed to agree with that appointed by the Board of Education for the high school entrance examination.

On the morning of the examination—or rather the first morning, for in the higher grades it extends over the greater part of three days—the secretary of trustees comes to the grammar school to relieve me by presiding while my pupils are engaged in a written examination; I go to the principal's room in the intermediate; he to the next lower; and so on down to the primary. The trustees move about from grade to grade to exercise a general oversight, and see that all is being done fairly.

Before the examination takes place each teacher places in the hands of the trustees a list of his or her pupils classified as "qualified," "doubtful," "not qualified," basing the judgment upon the work done during the year. This list is carefully compared with the result of the examination, and from a consideration of the two the trustees come to their decision.

Any adequate scheme of grading must be based on the assumption that a complete and thorough knowledge of each pupil's acquirements and ability is indispensable. As such knowledge can be had only by the teacher, his carefully formed judgment must be the most important factor in the determination. Since opinions differ, however honestly formed, some means must be adopted to obtain a uniform standard. Besides, the scheme must be simple; any elaborate system, even if excellently well planned, would be apt to work ill in practice.

Bearing these requirements in mind, I will suggest a scheme for the reader's consideration which, I hope, will embody them. The plan will be designed for a town where each teacher has charge of two grades, and a number of teachers are under one principal.

First, then, I would place the grading entirely in the hands of the principal and his staff. They alone are in a position to obtain that minute and thorough knowledge of the pupils' attainments and powers, without which the work cannot be properly and justly done; and, besides, they are so vitally interested in having the

grading thoroughly done that they would not fail to take the necessary steps to accomplish it, even though it entailed much labor.

Secondly, I would have the pupils graded upon the teachers' recommendation. But the recommendation should be based upon no superficial observation, but upon the results of comprehensive and systematic tests applied at regular intervals.

In grades V, VI, VII, VIII, these tests would be for the most part *written*. Three examinations annually in all the subjects of the course would be sufficient to determine with accuracy the standing of the pupils. In the first two examinations the questions would be set and answers estimated by the teacher alone, the answers being then handed over to the principal for inspection, while in the final examination, in the case of pupils passing from one department to another, the principal, the teacher of the grade and the teacher of the next higher grade would make out the questions jointly. The answers to these questions would then be estimated by the teacher of the grade jointly with the teacher of the next higher.

In the lower grades the tests might be more frequent and must be to a greater extent *oral*, but the same method would be adopted.

In every grade an accurate record of the standing of each pupil in all the subjects of the course should be kept by the teacher.

In case of pupils passing from one department to another, the principal, the teacher of the grade and the teacher of the next higher grade, basing their judgment upon the pupils' record and having regard to all the circumstances which they would know as no one else could, would, I think, arrive at a decision as nearly just as could possibly be attained. In passing from grade to grade in the same department the teacher and the principal would decide. Such are the outlines of a scheme of grading which, I believe, would prove satisfactory. The details could easily be worked out and might vary to suit varying conditions.

Such a plan, besides furnishing accurate data on which to grade the pupils, would, *inter alia*, provide both teachers and pupils with a fair test of the success which was attending their efforts, and also keep the principal in close touch with the several departments under his charge—two consummations devoutly to be wished.

Being convinced that there has been a great loss of power in the working of the educational machine on account of carelessness in this matter of grading, I have written this article, not so much to put forward a scheme which all will approve, as to arouse the attention of the readers of the REVIEW to the importance of the subject, to evoke discussion upon it, and to contribute something towards keeping us all from falling into that apathetic state which I fear is too common with teachers as well as trustees, "where inconsistencies cease from troubling and logic is at rest."

For the REVIEW.]

Manual Training.

To the question "Why should Manual Training be a subject in the course of study," we answer "Because it is one of the most effectual means of educating the child." Just as a passage from Milton or Tennyson may educate the child's imagination to the perceptions of visions of beauty and the sense of hearing by the music of the verse, so is the child's eye educated to the existence of form when he produces the form with his own hand and eye. Strength and delicacy of touch are qualities which no educated person need think lightly of.

Views of education similar to these aroused Mr. F. H. Rindge, of Cambridge, Massachusetts, to found a Manual Training School, which was one of the first of its kind in America. This school is to be taken over at the beginning of next year by the city of Cambridge. We may here give some account of it in the hope that it will serve to deepen in our minds the importance of such an education. The school is held in two buildings, one of which is used for academic studies which are directed by the teachers of the English High School. The other contains the work rooms. Over the main door of this building is the inscription: "Work is one of our greatest blessings; Every one should have an honest occupation." On the left is the wood-working room. Here one sees some of the youngest boys learning to plane, make and fit joints, and construct boxes and chests. As they get more advanced, they are put to work at the lathe and taught pattern-making. In the iron-working room work is done on all sorts of metals. The boys make, for example, cog-wheels, steel chisels, hammers, and even steam engines. Welding and other forms of blacksmithing are taught in the forge-room. Courses in drawing, both mathematical and freehand, are given. The instructor in the latter finds models of mathematical solids the best material.

The course of study for the class corresponding to the first year of our high school is:

Elementary Algebra,	Drawing.
English History,	Carpentry and Joinery.
Civil Government,	Iron-fitting.
English Language, }	
English Literature. }	

The carpentry and joinery includes saw and chisel exercises, mortise and tenon joints, dove-tailed joints, boring exercises, table-leg and rail, tool-chest, shoe-blacking stand, etc. The course in iron-fitting includes chipping, filing, scraping, polishing, drilling, bolt-cutting, etc.

Such is an example of the course of study for one class in a highly-systematized manual-training school.

On its educational value we may quote the following from the catalogue of the school just referred to.

"To make or read a working drawing; to see in its lines the outline of something into which crude material whether of wood or iron is to be wrought; to form and hold in mind the perfect image of that which is to be made; to think out and through the manipulations by which it is to be wrought; to test and prove the final result as the exact and perfect product sought from the beginning.

"Such a process involves a series of mental activities of as wide range and as great intensity as are involved in establishing a principle in physical science or solving a problem in algebra. And the educational product of the one may be quite as great and valuable a preparation for right and efficient living as that of the other. Nor is there lacking an ethical product of large value as the effect of this process. To do things with exactness, to seek the highest perfection in the product of one's skill, even if that product be the simplest form into which wood or iron can be wrought, is to seek the true, and may be to seek the beautiful as well. Such seeking * * * can hardly fail to result in that highest of educational products—habit."

The boys who have taken this course, and a larger number take it by preference, have adopted very various pursuits. Some have gone to engineering schools and will become mechanical or electrical engineers. Others hold places as machinists, draughtsmen, mechanical assistants, and instructors in manual training schools.

The good will of the tradesmen towards the school is shown by a diploma given to the school by the Massachusetts Charitable Mechanics' Association. The diploma is given for "superiority of methods of manual training."

What can be done in our own schools for the education of the hands and eyes of our children? Increased attention can be given to drawing, and greater efforts put forth to obtain a well-finished piece of work in every drawing. Work can be done in fitting the school room with useful appliances. The teacher can take pains to show her respect for the occupations of the mechanic, the engineer, and humble but vitally necessary tasks of the dressmaker, the cook, and the farmer. As time goes on we may expect to see patriotic Canadians continuing and enlarging the opportunities for manual training given at Halifax, Wolfville, Truro and other places.

T. C. M.

Cambridge, Mass., Dec. 1898.

I find the REVIEW full of helpful suggestions, and am not disappointed when I look for something new in each number.

[FOR THE REVIEW.]

English Literature in the Lower Grades.

FIDELITY—ROYAL READER, No. IV., p. 71.

This poem was written by William Wordsworth, one of the very greatest of English poets. He lived from 1770 till 1850, and spent most of his life in what is called the Lake country in the North of England. If you look for Helvellyn on a large map of England, you will see that it is in a very hilly country, and among the hills are many lakes. Wordsworth never tired of this beautiful scenery, and he wrote a great deal about it and so made it very famous. Although he was such a great poet he did not write equally well at all times and on all subjects, and this is not one of his best poems. The fourth verse is left out in this book. It describes the place thus:

Then sometimes doth a leaping fish
Send through the tarn a lonely cheer;
The crags repeat the raven's croak
In symphony austere.

Thither the rainbow comes—the cloud—
And mists that spread the flying shroud;
And sunbeams; and the sounding blast;
That, if it could, would hurry past;
But that enormous barrier holds it fast."

This verse helps to make us feel the loneliness of the mountain. Perhaps it was in one of those "mists that spread the flying shroud" that the dog's master had lost his way and so fallen over the precipice.

What are "boding thoughts?"

What does the poet mean by "a lasting monument of words?" Can you recall any other dumb animals that have had such monuments raised to them or deserved to have? On page 93 we have another story of a faithful dog. Which do you like best?

What do you remember about the Poet Cowper who wrote the "Loss of the Royal George?"

The other poems of his that we have here are very different from that and from each other, and show how he could write well in various ways. Everyone who reads English poetry at all has laughed over "The Diverting History of John Gilpin, showing how he went farther than he intended, and came safe home again." For this is the full title. Cowper has told us how he came to write it. He had a very pleasant lively friend, Lady Austen, who used often to cheer him when he was ill and sad. One evening she noticed that he seemed very melancholy, and to amuse him she told this funny story that she had heard about a man being run away with and losing his hat and wig. The poet was so delighted that before he went to bed that night he turned the story into verse, and read it to his

friends next the morning at breakfast, to their surprise and amusement.

It was Lady Austen who persuaded Cowper to write a greater poem, "The Task," so called because it was a piece of work set for him by his friend. He said he had nothing to write about, and she told him to write about the sofa on which she was sitting. So the first part of the work is called "The Sofa;" it begins by telling how we came to have sofas, and then goes on to describe the walks that he liked to take when he was a boy, before he was old enough to be easily tired. He tells us about the country in winter and brings it all before us in simple and beautiful words. "The Task" has many lines that are often quoted, such as—

"The cups that cheer but not inebriate."

"Slaves cannot breathe in England; if their lungs
Receive our air, that moment they are free,"

and

"God made the country, but Man made the town."

Cowper wrote fine prose as well as good poetry. His letters are delightful reading, and by his writings he has given pleasure and comfort to many people, though his own life was dull and sad.

[FOR THE REVIEW.]

A Rare Postage Stamp.

BY GEORGE STEWART, D. C. L.

To the Province of New Brunswick belongs the distinction of having produced one of the rarest postage stamps in the world. This was the famous "Connell" stamp. In 1861, decimal currency was introduced into the province, and the uncouth pence issue of postage labels were replaced by a set of graceful stamps representing cents. A locomotive adorned the one cent issue, while the Queen's head, a portrait of the Prince of Wales, and a steamship supplied the designs used on the ten cents, twelve and a half cents, and seventeen cents stamps. The Hon. Charles Connell was Postmaster General at the time. Without consulting his colleagues, he ordered his own effigy to be engraved on the five cent stamps, and they were duly printed in brown and issued to the public. The stamp aroused the utmost indignation. Mr. Connell's associates in the cabinet were furious, while the members of the opposition ridiculed the Postmaster General and the government to their hearts' content. The stamp was immediately withdrawn from circulation and destroyed. The plates were broken up, and Mr. Connell was forced to resign his post. This he very promptly did, and for a year or two he remained in private life. The stamps were used for one day and a sheet or two of them found their way into the hands of collectors. A short time afterwards

they commanded the price of five dollars each. To-day they fetch at least one hundred dollars apiece, and very hard to get even at that cost. A good many forgeries appeared of this label, the most dangerous counterfeits being photographs, the color readily lending itself to the deception. The stamp was perforated. The new five cents issue, which replaced it, bore the head of Queen Victoria, and the color was a very pretty green. The lampooners of the time made Mr. Connell suffer very much. One rhymist furnished a ballad, part of which may be quoted here :

“Twas gallantrie that prompted him,
As anyone might see,
Such business was too servile for
Her gracious Majestie.
A man can rougher usage bear,
Therefore he placed his visage there.

Such little minds pretend to see
His vanitie quite playne ;
Yet who e'er heard of such a sin
Lodged in a manlie braine,
Tho' true upon the stampe you see
Ye look of kind complaisancie.

Collector, you should bend before
That image on your booke,
Just as ye miser does his gold,
In hidden box or nooke.
Remember that ye essay cost
Ye salarie—oh lost ! lost !! lost !!!”

York County Teachers' Institute.

The York County Teachers' Institute met at Frederickton on Thursday and Friday, December 22nd and 23rd. The president, H. H. Hagerman, in his opening address, spoke of the necessity of organization among teachers, and greater recognition for their services in advanced salaries. Fewer and better qualified teachers are needed, with more professional training. To secure this result, entrance to Normal school should be made more difficult, and the course there might be extended with advantage.

Mr. L. Burpee, principal of the Gibson school, taught a lesson in geography to a class from his school. The lesson plan was to form a map of Australia on the board and place the capes. After this was done the drawing was rubbed from the board and the children were required to restore the map and its features as fully as possible.

Model lessons in arithmetic were given by Principal Rogers of the Model school and Principal McFarlane of the Charlotte street school, and Principal Foster of the High School gave a lesson on the subject, How all Operations in Fractions are Based on a few Simple Principles.

The following officers were elected for the coming year: President, H. V. B. Bridges ; Vice-Pres., J. F. Rogers; Sec.-Treas., Miss E. L. Thorne ; Executive Committee, B. C. Foster, H. C. Henderson, Miss Grace Porter.

The Board of Education was asked to grant the request of the Queens and Sunbury Institute to meet with the teachers of York county in 1899.

Prof. Raymond, of the University of New Brunswick, read an instructive paper on the Study of the Greek Language ; Mr. Hagerman gave a practical paper on Penmanship ; and Mr. John Brittain, of the Normal School, one on Nature Studies in the Common Schools.

CURRENT EVENTS.

The new year opened in Canada with an important change in postal arrangements. The letter rate has been reduced from three to two cents to all parts of Canada and the United States. On Christmas day the rate of postage from Canada to Great Britain and the British possessions, except Australia and a few minor dependencies, was also reduced to two cents. Newspaper postage at the rate of one fourth cent a pound was imposed on the first of January, to continue until July 1st, when the rate will become one-half cent a pound.

Thos. Cook & Sons, the tourist agents, offer to carry excursionists to Paris and back, to the French Exposition in 1900, for \$100, which pays all expenses from Montreal or New York and return, the trip to occupy one month.

Dr. Becquerel has announced to the Academy of Sciences at Paris the discovery of a new supposedly elementary substance which has a close affinity to barium. The correspondent of the *New York Sun*, who cables the news, states that its discoverers, MM. Curie and Bremona, have named it “radium.” It is so sensitive to light that it will take photographic impressions.

The formal surrender of Spanish sovereignty over Cuba was made on Sunday, January first. The proceedings were conducted quietly.

For a Happy New Year.

Suppose we think little about number one,
Suppose we all help some one else to have fun ;
Suppose we ne'er speak of the faults of a friend,
Suppose we are ready our own to amend ;
Suppose we laugh *with*, and not *at*, other folk,
And never hurt anyone “ just for the joke ;”
Suppose we hide trouble and show only cheer—
’Tis likely we'll have quite a Happy New Year!

—St. Nicholas.

THE SUMMER SCHOOL OF SCIENCE.

Session of 1899.

The Summer School of Science for the Atlantic Provinces of Canada, will be held this year at Campbellton, on the far-famed Restigouche River. The occasion will be one of more than ordinary interest. The Nova Scotia Institute of Science, the Natural History Society of New Brunswick, and other scientific societies, have been invited, and have consented to participate in the gathering, which, it is confidently expected, will be one

in Quebec and north-western New Brunswick. To the south, just back of the town, is Sugar Loaf Mountain, from the top of which one of the most commanding views in northern New Brunswick may be obtained. No more advantageous place could possibly be chosen. The scenery is such as to delight every lover of nature; and to spend two weeks amid such scenes and in a cool and invigorating atmosphere will refresh and delight many tired spirits. The student of natural science will here find unequalled opportunities for investigation. Geologists and botanists will have before them one of the most interesting districts in Canada for exploration. The zoologist will have abundance of marine and fresh



TYPICAL SUMMER SCHOOL GROUP.— PLASTER QUARRIES, ALBERT CO., N. B., JULY, 1898.

of the most representative in science ever assembled in these provinces.

The Location.

There is no more romantic and picturesque river in the Atlantic Provinces than the Restigouche, and the choice of Campbellton for the Summer School Session of 1899 is a happy one. The scenery in the vicinity is magnificent. To the north and west are the lofty hills of Quebec and northern New Brunswick. To the east is the Baie de Chaleur, towards which flows the cool waters of the Restigouche from their mountain sources

water forms within easy reach, while the historical student will find himself on ground famous in early history, for here was fought the final battle between the English and French in Canada.

Campbellton is not only picturesquely situated. It is an important railway centre and commercial port. Situated on the estuary of the Restigouche, its waters are navigable for the largest ocean steamships. The citizens are noted for their public spirit and hospitality. The fine school building recently opened and containing eight large classrooms, and an assembly hall capable of

accommodating an audience of six hundred, has been placed at the disposal of the Summer School.

What the School is and What it Does.

This school was established for the purpose of affording teachers and others the opportunity of combining the study of some speciality, with the rest and recreation of a delightful and *inexpensive* two weeks' outing. Work and recreation are combined in a most attractive way: the mornings are given to lectures and laboratory work; the afternoons to field work and excursions, and the evenings to lectures and discussions to which the public are invited. The excursions this year will embrace visits to points on the Baie de Chaleur, the Restigouche and Metapedia, the romantic scenery of which must be seen to be appreciated. Leading scientific men have been invited to take part in the evening meetings and exceptional opportunities will be afforded for discussing scientific and educational questions.

Subjects and Results.

There are three classes of subjects taught: The physical sciences, embracing physics, chemistry, geology and mineralogy; the biological sciences, including botany, zoology, physiology and entomology; literature and music, which embrace English literature, psychology, education, expression, music.

Provision is made for those who wish to continue their studies for a second year by providing, in certain subjects, a higher course. Students intending to take a second year's course should notify the secretary of their intention not later than May 1st.

Certificates will be granted by the faculty to those who finish the required work and obtain at least fifty per cent. of marks in the examinations. In these examinations credit is given for original and practical work done in the laboratory, and for collections, mounting, and apparatus made. All laboratory work will be done by aid of the simplest and least expensive apparatus, thus giving teachers valuable suggestions how to incorporate such equipments in the work of their schools.

The faculty of the Truro Normal School, also of Mount Allison University, Sackville, N. B., will give students credit for successful work done at the Summer School of Science.

Tuition and Expenses.

Each student is charged a registration fee of \$2.50, to be paid to the Secretary-Treasurer on enrolment. This registration fee entitles the student to admission to all the ordinary classes. An additional fee of \$2 per subject will be charged for advanced classes, to be

paid to the instructor. Visitors and others who may wish to avail themselves of the privileges of the school by occasional attendance at the classes and at the evening lectures, may do so by paying a fee of one dollar.

Board can be secured for from \$2.50 to \$5 per week. To secure board at reduced rates application must be made to the Secretary of the Local Committee, E. W. Lewis, Esq., Campbellton, N. B., not later than June 20th. Neglect in making application for board has caused great inconvenience in the past to local secretaries, and disappointment to the members of the school. *Do not neglect to apply in time.*

Be Careful to Notice

that intending students should notify the Secretary not later than June 1st, of their intention to attend the school and the subjects they purpose studying; that the lowest possible rates will be given by all railway and steamship lines; that a standard certificate must be procured, when purchasing tickets, to secure reduced rates; that fuller information will be published in the EDUCATIONAL REVIEW from time to time giving further particulars; and that the Secretary, J. D. Seamar, Charlottetown, P. E. I., will send a copy of the calendar, and any information of a special character, on application.

Weigh Well the Advantages

that the Summer School will afford teachers and students: the opportunity to gather fresh ideas from those who are pursuing advanced work in science and education; it will furnish a delightful period of recreation amid the most romantic and charming scenery in north-eastern America; and the meeting socially with a body of earnest teachers and co-workers will be a stimulus to the work of succeeding years; the evening meetings alone will be of great benefit, as those who will take part in them are men noted for their attainments in science and education.

Opening.

The opening exercises of the school will take place on Tuesday evening, July 25th, at 8 o'clock. The programme will consist of addresses, music, etc. The regular work of the school will begin at 9 a. m., on Wednesday, July 26th.

Officers, 1899.

PATRONS.—Prof. J. G. MacGregor, F.R.S.E. and C., Halifax, N. S.; G. F. Matthew, D. Sc., F.R.S.C., St. John, N. B.; Hon. R. R. Fitzgerald, Judge Supreme Court, Charlottetown, P. E. I.

PRESIDENT.—G. U. Hay, M.A., F.R.S.C., St. John, N. B.

VICE-PRESIDENTS.—W. R. Campbell, M.A., Truro, N. S.; W. A. Hickman, Pictou, N. S.; R. H. Campbell, Summerside, P. E. I.

SECRETARY-TREASURER.—J. D. Seaman, Charlottetown, P. E. I.

BOARD OF DIRECTORS.—The President, Secretary-Treasurer; L. W. Bailey, Ph.D., Fredericton, N. B.; Geo. J. Oulton, M.A., Moncton, N. B.; John Brittain, Fredericton, N. B.; A. Cameron, Yarmouth, N. S.; W. W. Andrews, M.A., Sackville, N. B.

LOCAL COMMITTEE.—D. Murray, M.D., A. E. G. McKenzie, E.W. Lewis, B.A., Secretary, Campbellton, N. B.

Subjects and Instructors.

BOTANY.—J. Brittain, Normal School, Fredericton, N. B.

ANHYDROUS CHEMISTRY OR BLOW PIPE ANALYSIS.—W. W. Andrews, M. A., Mount Allison University, Sackville, N. B.

CHEMISTRY.—W. H. Magee, Ph. D., High School, Parrsboro, N. S.

EDUCATION.—J. B. Hall, Ph. D., Normal School, Truro, N. S.

EXPRESSION.—Miss Mina A. Read, Normal School, Truro, N. S.

ENGLISH LITERATURE.—A. Cameron, Academy, Yarmouth, N. S.

GEOLOGY.—L. W. Bailey, Ph. D., University of New Brunswick, Fredericton, N. B.

KINDERGARTEN.—Mrs. S. B. Patterson, Normal School, Truro, N. S.

MUSIC (TONIC SOL-FA).—Miss Ada F. Ryan, Halifax, N. S.

PHYSICS AND METEOROLOGY.—W. R. Campbell, M. A. Academy, Truro, N. S.

PHYSIOLOGY AND HYGIENE.—J. A. Starrett, Yarmouth, N. S.

ZOOLOGY AND ENTOMOLOGY.—G. J. Oulton, M. A., High School, Moncton, N. B. W. A. Hickman, Pictou, N. S.

Course of Study.

ASTRONOMY.—In this subject no regular course is laid down, but should the weather be favorable, parts of evenings will be devoted to *star-gazing*, when Principal Cameron, of Yarmouth, will give some elementary talks on the heavenly bodies then visible.

BOTANY.—(First year.) 1, Roots, Stems and Leaves; 2 and 3, Flowers—their forms and structure; 4, Inflorescence; 5, Fruits—their development and structure; 6, Seeds—their structure and forms; 7, the Compositæ; 8, the Gymnosperms. Each student should bring a copy of Spotton's Botany or of Gray's Manual.

The Botany for the second or advanced year will be on the minute structure of plants, as seen by the microscope; methods of growth and reproduction, and some general ideas of plant physiology. J. B.

ANHYDROUS CHEMISTRY, OR BLOWPIPE ANALYSIS.—In this course an effort will be made to give a good start in methods of chemical research with the blowpipe, to show the great range and simplicity of the gypsum tablet method, and to demonstrate that with a cheap and almost meagre equipment a great number of chemical experiments is possible; and that therefore chemistry, according to laboratory methods, may be taught in our common schools at a cost within the ability of the poorest school. Apparatus required—a three cent blowpipe lamp, a thirty-five cent blowpipe, some paraffin wax, a supply of gypsum tablets, costing two cents a dozen, four small bottles for reagents, three dipping tubes, and a supply of matches. W. W. A.

CHEMISTRY.—(First year.) Lectures will be given on—1, Matter, energy, chemical affinity, elements and compounds; symbols and formulæ, reactions and equations; 2, Preparation and properties of oxygen, oxidation, combustion, oxides, ozone; 3, Hydrogen—preparation and properties, synthesis and analysis of water, properties of pure water; 4, Acid and base-forming elements, radicals, acids, bases, salts; 5, Preparation and properties of acids and bases; 6, Nitrogen—its oxides and acids, ammonia; 7, Carbon—its oxides and their properties, carbonates; 8, the Halogens and their uses. The practical work will be illustrative of what is given in each lecture.

A course in Elementary Qualitative Analysis will be offered to sufficiently advanced pupils for a second year's course, if director is notified before May 1st. W. H. M.

EDUCATION.—1 Introductory. Education in History. 2. What is Teaching? 3. Educative Instruction 4. Correlation of Studies. 5. Child Study. 6. School House-keeping. 7. The School as a preparation for practical life. The above course of study is subject to revisions and is therefore only tentative. J. B. H.

EXPRESSION.—*Vocal and Physical Culture, Reading.*

(First Year.)—Evolution of Expression, Animation, Smoothness and Volume of Voice, Clear and Definite Enunciation. Comparison of various methods of teaching reading to beginners in primary schools.

(Second Year.)—Evolution of Expression, Inflections, Slides, and Literary Analysis, Application of the Philosophy of Expression to reading as taught in the public schools. In addition to the regular class work, private lessons will be given to individuals desiring them, or to classes of four to six. Terms, \$1.00 an hour. M. A. R.

ENGLISH LITERATURE.—The selection for study is *Milton's Comus*. Students purposing to attend the literature class for 1899 will procure the edition of *L'Allegro Il Penseroso, Lycidas and Comus*, and will read all four poems, paying special attention to *Comus*. They will also do as much of the work as possible suggested in the introduction and notes. SEC.

GEOLOGY.—Syllabus of Lectures on the Physical and Geological Features of the River and Gulf of St. Lawrence.

1. *Physical Features*.—(a) Position, form and depth of the St. Lawrence Basin, bordering lands, climate, relations to other parts of the continent. (b) The St. Lawrence River, distinctive features. (c) Evidences of change, operations of winds, waves, tides and currents, erosion, formation of bars, sounds, bays, islands, promontories, etc.; nature of soundings, relation to marine life, ice effects.

2. *Geological Features*.—Evidences of earlier changes, formations distinguished, their origin, inferences as to former geography, the coal era, the Devonian and Silurian eras, their fossils, relation to existing forms, inferences as to former life, inferences to climate, etc.; evolution of St. Lawrence River and Gulf.

The above lectures will cover a considerable portion of dynamical geology, as well as the geological structure and history of the Maritime Provinces, and will, as far as possible, be based upon the results of actual studies in the field, made each day by the students of the Summer School. L. W. B.

KINDERGARTEN COURSE.—This course is intended to give some definite knowledge of those principles which lie at the foundation of all true education, as well as in the grades of the common schools and in the home as in the kindergarten. Not only teachers, but mothers, and all interested in little children, may derive from this study both profit and pleasure. It will be the aim so to present Fröbel's views through simple talks as to make them of practical use in the Sunday-school, the day-school, and the home. A number of Fröbel's "Mother Plays" will be analyzed to show the true philosophy of his work. The training of the senses, discipline, games, songs and stories will be discussed. In order to give an opportunity of studying its methods in operation, it will be arranged, if at all practicable, to have a kindergarten in connection with the Summer School. Extra time will be given, if desired, to the intelligent and practical use of such kindergarten materials as may be helpful in the school-room. S. B. P.

VOCAL MUSIC (Tonic Sol Fa).—(First year.) Correct method of breathing, first principles of voice culture,

the tones of the scale and their relations to one another, constitution of the principal chords of the scale, the modulator, first, second and third step voluntaries; time, as regulated by accent, time names, elementary rhythms, measures, pulse divisions; ear exercises; books—Tonic Sol Fa Music Reader and School Day Melodies, Part I.

A second year's course will be given to pupils who hold the elementary certificate or who are prepared to take it. Certificates of the London Tonic Sol Fa College will be granted to successful candidates. Students should study and practice as much as possible during the year. Books—Standard Course (\$1.25) School Day Melodies, Part II.

Books will be supplied at the school for those pupils only who write to the teacher to engage them. Address, Miss Ada F. Ryan, 17 Spring Garden Road, Halifax. Private lessons \$1 an hour. A. F. R.

PHYSICS AND METEOROLOGY.—(First Year.) Physical Properties of Matter, such as Weight, Density, Porosity, Divisibility, Cohesion, Elasticity, Capillarity, etc.

Dynamics of Fluids. Barometer. Siphon. Pump. Specific Gravity. Motion. Energy. Heat. Conduction. Convection. Radiation. Thermometer. Experiments will be conducted as far as possible with the simplest apparatus. Students will find it to their advantage, to have read beforehand, Gage's Introduction to Physical Science.

A second years' course will include Light, Sound, Electricity. For those desiring it, a special course will be given in the use of Meteorological Instruments and Keeping of Records. A course of lectures will also be given on the more common atmospheric phenomena, such as rain, hail, snow, frost, dew, storms, etc. W. R. C.

PHYSIOLOGY AND HYGIENE.—Man's place in Zoology; Composition of the Body with simple tests; Bones, their Composition and Structure; Muscles and Sinews; The Digestive Organs; Digestion; Respiration; Ventilation; The Eye; Voice.

An hour each day will be devoted to dissection and microscopic examination. Students who wish to take the second year's course would do well to notify the secretary of their intention at least a month before the opening of the schools, so that apparatus may be collected for experiment. Only those who advise the instructor, at least a fortnight before the school opens, that they intend to take the first year's course can, with any degree of surety, expect to be furnished with specimens for dissection; an honest effort will be made to furnish those who take that trouble with the necessary subject. S. A. S.

ZOOLOGY AND ENTOMOLOGY. *Zoology.*—Its relation to other natural sciences; different kinds of cellular tissue and their functions; life history of some groups of animals; how to study animals, their food, habits, habitats, classification and relation to human welfare.

Laboratory Work.—Dissection and study of a number of typical forms, clearly revealing their external and internal anatomy. As far as time will permit the following will be studied: (1) a radiate, (2) a mollusk, (3) a fish, (4) an amphibian, (5) an arthropod, (6) a bird, (7) a mammal. This work will include the muscular, nervous, bony, digestive, circulatory and respiratory systems, as well as special senses and organs.

Entomology.—Some instruction will also be given in insect life,—forms and structure, metamorphoses, modes of development, food, habits, habitats, injuriousness to fruits, etc., or usefulness in nature; classification. How to collect and preserve specimens.

Apparatus.—Each member of the class should have a sharp pocket-knife, a pair of small scissors, a pair of forceps and a magnifying lens.

Mr. A. J. Hickman, of Harvard University, will be associated with Mr. Oulton in zoology and entomology.

G. J. O.

Text Books.

BOTANY.—Gray's How Plants Grow (new edition) 75 cents. Spotton's Botany, for Beginners, and Gray's Manual.

CHEMISTRY.—Williams' Introduction to Chemical Science, 75 cents. Williams' Laboratory Manual of Chemical Science, 35 cents. Remsen's Organic Chemistry, \$1.20

EXPRESSION.—Emerson's Evolution of Expression, Vol. I. 50 cents. Emerson's Evolution of Expression, Vol. II., 50 cents.

GEOLOGY.—Schaler's First Book in Geology, \$1.25. Dana's Geological Story Briefly Told, \$1.25.

LITERATURE.—Milton's L'Allegro Il Penseroso, Comus, Lycidas. T. C. Allen & Co., Halifax, 15 cents.

MINERALOGY.—Crosby's Rocks and Minerals. Crosby's Key to Mineralogy. J. R. Dana's Physical Mineralogy.

MUSIC.—Seaward and Unseld's Tonic Sol-Fa Music Reader, 35 cents. The Standard Course, \$1.25.

PHYSICS.—Gage's Introduction to Physical Science, \$1.00.

PHYSIOLOGY.—Martin's Human Body, \$1.00.

ZOOLOGY.—Dawson's Handbook of Zoology, \$1.25. Colton's Practical Zoology, 90c.

PROVISIONAL TIME TABLE.

TUESDAY, JULY 25th, to WEDNESDAY, AUGUST 9th, 1899.

TIME	TUE.	WED.	THURS.	FRI.	SAT.	MON.	TUES.	WED.	THUR.	FRI.	SAT.	MON.	TUES.	WED.
A. M.														
8.30	}	Physical Culture	Music	Phys Cul	Music	Phys Cul	Music	Phys Cul	Music	Phys Cul	Music	Phys Cul	Music	Phys Cul
9.00														
9.00	}	Botany	Bot	Bot	Bot	Bot	Bot	Bot	Bot	Bot	Bot	Bot	Bot	Bot
10.00			Music	Music	Music	Music	Music	Music	Music	Music	Music	Music	Music	Music
10.00	}	Chemistry	Chem	Chem	Chem	Chem	Chem	Chem	Chem	Chem	Chem	Chem	Chem	Chem
11.00			Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys
11.00	}	Blow-pipe An	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal
12.00			Exp	Exp	Exp	Exp	Exp	Exp	Exp	Exp	Exp	Exp	Exp	Exp
P. M.														
12.00	}	Kindergarten	Kind	Kind	Kind	Kind	Kind	Kind	Kind	Kind	Kind	Kind	Kind	Kind
1.00			Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys
7.30	}	Literature	Lit	Lit	Lit	Lit	Lit	Lit	Lit	Lit	Lit	Lit	Lit	Lit
Opening Meeting			Lecture	Lect	Lect	Lect	Lect	Lect	Lect	Lect	Lect	Concert	Lect	Lect

EXAMINATIONS.

This Time Table is subject to change. If, however, before the opening of the school, ten students intimate to the Secretary their intention of joining any class, and express a desire to have the time specified in the Time Table, no change will be made in that subject. This Time Table refers to regular classes. Instructors will arrange with their classes the time for advanced work; also for field and laboratory work. The afternoon of each day is left free for excursions and field work. One whole day, perhaps two, will be given to excursions, in which case the regular class work will be discontinued. Evening lectures will be followed by discussions. On evenings that give opportunities for star-gazing the discussions will be shortened.

A system of popular education cannot possibly be kept down to the mere elements. This was the effort in England but it has signally failed. Says the *School Board Chronicle*: Again and again, after the triennial elections came new members to the school boards breathing fire and slaughter against specific subjects, higher departments, manual training, laundry work, over-pay,

and over-pressure, extravagances and fads, and all the rest of it. Again and again those who came to destroy found it their duty, as honest men and good citizens, to remain to uphold what they found to be a natural, necessary, harmonious and relatively inexpensive development of the work of which the three R's were but the bare, though costliest beginning.—*Education.*

HOME AND SCHOOL.

Some teachers may be interested to know how parents have been made to see more clearly their duty to the public school in District Number 3, of Elmira, N. Y.

To begin with I sent by the pupils the following circular invitation to every parent in the district, and to some others interested in the cause of education, including the superintendent and local commissioner :

GRAMMAR SCHOOL NO. 3, ELMIRA, N. Y. October 1898.

1. Do you know the teacher of your child?
2. Do you know what the teachers are trying to do for your child?
3. Do you wish to see where your child spends his school hours?
4. Have you not many questions to ask those working for the education of your child?
5. Have you any complaints against the school, the teachers, or the principal?
6. Can you suggest new subjects, or lines of thought, which should be taught your child, if so what?
7. In your judgment should some subject be omitted from the present course of study, if so, what and why?
8. Do you believe in united effort?
9. Do you know that the teachers need and desire more of your help, co-operation and cheer?
10. Do not these questions appeal to you? If so you are earnestly INVITED TO ATTEND an informal meeting of all those parents, guardians, teachers and others interested in Number Three School of Elmira, to be held at the School Building, Saturday afternoon, October 15, at three o'clock.

Yours in the interest of your child,

A. D. CALL, Principal.

Two days before the meeting I had an article printed in one of the local papers of which I give an extract :

What are you, parent of a growing boy, what are you doing that you yourself may grow? Are you in any way helping organizations for the uplifting of the race? In giving your physical self for your girl are you giving your intellectual and spiritual self as well? Do you keep constantly before you the importance of the never-failing study of your child's many-sided tendencies and disposition? Are you a church worker? Are you watching and directing with care the technical skill of your child? Do you keep in mind that the vital, intuitive, emotional impressions of your offspring are most governable while he is young and, more, that the time will soon come when he will have no such intuitional capacity if it is for long neglected? Are you reading ethical and inspirational literature, systematically and intelligently, that your child may do the same because of the contagion of your example? Are you satisfied with the spiritual and physical influence you are exerting over him who calls you father or mother? Are you frequently visiting your boy's teacher? Do you frequently go to the school there to compare notes, to give and receive new light?

In this day and generation we can ill afford to leave the "education" of our children entirely to the school.

There is a crying necessity for a greater sympathy between parent and teacher. This can only be aroused by a better mutual understanding, and this mutual understanding will follow, as the night the day, if each will take the initiative, lovingly forbear with one another, honestly confer together, and studiously work for the salvation of the young by intelligent steps and earnest co-operation.

How bring about this co-operation? The answer is plain. Come together. When? To-day, certainly not later than this week. Organize. Elect officers. Confer. Discuss. Mistakes will be made. Surmount them. There is contagion in numbers. Have committees. Plan the work for each meeting in advance. Above all go, and in a kindly spirit of mutual helpfulness.

What subjects should be discussed? Bless you, it's your boy and your girl. The question really is what subjects shall be left out. Home work, baths, contagious diseases, underclothing, play and playgrounds, eyes and ears, books, pictures, music, child study, hygiene, motives, temper, punishments, technical drill or manual training, kindergarten, newspapers, clubs, writing, drawing, ventilation, work, nervous diseases, and thousands of others. Why are we not trying to solve the questions? Why not go to-day to see the teacher, the principal, and talk it over? When it is our children, our very own who are interested, why are we not doing more to bring more closely together the home and the school?

A. D. C.

The day came, Saturday, October 15, cold, windy, and rainy; but sixty mothers appeared and two clergymen, including the venerable Thomas K. Beecher. The superintendent was there, and one member of the board of education. All of the teachers in the school were on hand and some of the practical results were: Those mothers who were present now know the teachers of their children and feel more sympathetically toward them and toward the school; the compulsory education law was outlined and applied to the system of excuses for tardiness and absence now in vogue in No. 3 school; the advantages to be derived from frequent consultation were emphasized; many suggestions were made concerning cleanliness in the school-room and of the pupils; the mothers see now that there is a real duty for them to perform if the school is to be a success; and all are enthusiastically in favor of continuing the meetings during the winter. They are to be continued.—*A. D. Call in N. Y. School Journal.*

An interesting attempt is to be made in England, during the coming winter, to unite more closely all who

are interested in education, whether parents or teachers. A conference has been formed in Oldham and Rochester of all people who have the good of the schools at heart, and meetings will be held in each town, for the purpose of discussing educational subjects and of listening to lectures by skilled experts.

Sympathetic Kipling.

A writer in the San Francisco *Argonaut* tells the following anecdote as coming from the lips of an American traveller who spent some time in the company of Rudyard Kipling in London :

One afternoon we went together to the Zoo, and while strolling about our ears were assailed by the most melancholy sound I have ever heard, a complaining, fretting, lamenting sound proceeding from the elephant house.

"What's the matter in there?" asked Mr. Kipling of the keeper.

"A sick elephant, sir. He cries all the time. We don't know what to do with him," was the answer.

Mr. Kipling hurried away from me in the direction of the lament, which was growing louder and more painful. I followed and saw him go up close to the cage, where stood an elephant with sadly drooped ears and trunk. He was crying actual tears at the same time that he mourned his lot most audibly. In another moment Mr. Kipling was right up to the bars, and I heard him speak to the sick beast in a language that may have been elephantese, but certainly was not English. Instantly the whining stopped, the ears were lifted, the monster turned his sleepy little suffering eyes upon his visitor and put out his trunk. Mr. Kipling began to caress it, still speaking in the same soothing tone and in words unintelligible to me at least. After a few minutes the beast began to answer in a much lowered tone of voice and evidently recounted his woes. Possibly elephants when "enjoying poor health," like to confide their symptoms to sympathizing listeners, as much as do some human invalids. Certain it was that Mr. Kipling and that elephant carried on a conversation, with the result that the elephant found his spirits much cheered and improved. The whine went out of his voice, he forgot that he was much to be pitied, he began to exchange experiences with his friend, and he was quite unconscious, as was Mr. Kipling, of the amused and interested crowd collecting about the cage. At last, with a start, Mr. Kipling found himself and his elephant the observed of all observers and beat a hasty retreat, leaving behind him a very different creature from the one he had found.

"Doesn't that beat anything you ever saw?" ejaculated a compatriot of mine, as the elephant trumpeted a loud

and cheerful goodby to the back of his vanishing visitor, and I agreed with him that it did.

"What language were you talking to that elephant?" I asked when I overtook my friend.

"Language? What do you mean?" he answered with a laugh.

"Are you a mowgli," I persisted, "and can you talk to all those beasts in their own tongues?" but he only smiled in reply.

'ROUND TABLE TALKS.

SUBSCRIBER.—Please solve Example XXIX, 34th, Todhunter's Algebra for Beginners,

$$1. \quad \begin{aligned} x^2 + 2xy - y^2 &= a^2 + 2a - 1 \\ (a-1) \times (x+y) &= a(a+1)y(x-y) \end{aligned}$$

$$\text{Let } y = vx$$

Then from the second equation

$$(a-1) \times (x+vx) = a(a+1)vx(x-vx)$$

$$(a-1)(1+v) = a(a+1)v(1-v)$$

$$v^2(a^2+a) - v(a^2+1) = 1-a$$

$$v^2 - v \left(\frac{a^2+1}{a^2+a} \right) = \frac{1-a}{a^2+a}$$

$$v^2 - v \left(\frac{a^2+1}{a^2+a} \right) + \frac{(a^2+1)^2}{4(a^2+a)^2} = \frac{1-a}{a^2+a} + \frac{(a^2+1)^2}{4(a^2+a)^2}$$

$$= \frac{4(1-a)(a^2+a) + (a^2+1)^2}{4(a^2+a)^2} = \frac{a^4 - 4a^3 - 2a^2 + 4a + 1}{4(a^2+a)^2}$$

$$= \frac{(a^2 - 2a - 1)^2}{4(a^2+a)^2}$$

$$\text{Therefore } v \pm \frac{a^2+1}{2(a^2+a)} \pm \frac{a^2-2a-1}{2(a^2+a)}$$

$$v = \frac{a-1}{a+1} \text{ or } \frac{1}{a}$$

$$\text{Therefore } y = x \left(\frac{a-1}{a+1} \right) \text{ or } \frac{x}{a}$$

substituting these values for y in the first equation we obtained the values of x , etc.

The solutions of the other examples asked for by "Subscriber," are given in the REVIEW for February, 1893 and 1895.

W. P. F.—Would you kindly answer the following through the EDUCATIONAL REVIEW: A pupil holds a B certificate, but has omitted the D and C examinations. Would he be granted a license as before the recent changes if he takes the subjects of D and C, not covered in the B certificate, and makes the required average on such subjects; or will it be necessary to take the whole examinations of C and D?

There is nothing in the Regulations requiring him to take the whole of the C and D subjects. He would be

required to take only those subjects not covered in the B certificate. It is understood that there will be a supplementary examination next July to meet such cases if they occur.

J. F. D.—To construct a right angled triangle, having given the hypotenuse and the difference of the sides.

Given two lines AB = the hypotenuse, and CD = the difference of the sides of a right angled triangle, construct the triangle. Produce CD to E . Make the angle $EDF = \frac{1}{2}$ a right angle. With the centre C and radius AB describe a circle cutting DF in G . Join CG , and from G let fall GH perpendicular to CE . Then CGH will be the required triangle. HDG and HGD are each of them one half a right angle. Therefore $HD = HG$ and CD is the difference of the sides.

SCHOOL AND COLLEGE.

Principal Mack of the Lockeport High School, Shelburne County, N. S., is looking for a substitute and a successor to assume charge in March. This is one of the good high schools of the Province, and candidates would do well to communicate with the principal promptly.

Notwithstanding the announcement of the Superintendent of Education for Nova Scotia that no "permission licenses" would be issued in that Province after the close of the school year which ended on the 31st of July, 1898, he has been induced to issue for the current school year *one half* as many of such licenses in and for the Municipality of Clare, Digby Co., as were issued last year on the understanding that no such licenses will be demanded hereafter. This course was rendered necessary in order to prevent the closing of a number of French schools for which French-speaking teachers are absolutely necessary. For a number of years past the granting of about fifteen "permissive licenses" each year in that Municipality was rendered necessary owing to the scarcity of French teachers. If this anomaly can be eradicated in one or two years—as we believe it can be—it will tend to bring the French schools of Clare to a higher state of efficiency than that to which they have attained in the past. The County Academy for Clare should furnish an adequate supply of French teachers for the French schools and we have no doubt that such would be the case if female pupils were permitted to enjoy in that institution equal rights and privileges with the males.

The following Atlantic Province students are pursuing post-graduate work in the University of Chicago: J. N. Haddon MacLean (Acadia) '92, in the department of History; Miss Annie M. MacLean (Acadia) '93, formerly teacher in the Frances Shimar Academy, Mt. Carroll, Ill., in the department of Sociology; D. P. MacMillan (Acadia) '95, Ph. D. (Chicago) '98, Sage Scholar Cornell University, '95-'96, Fellow, University of Chicago '96-'98, in the department of Philosophy.

A very successful school concert was held at Hopewell Hill, Albert Co., Dec. 24th, which netted \$22.50. The amount has been expended chiefly for the reading room in connection with the school, and for natural history supplies. The concert was

conducted by Mr. A. C. M. Lawson, the principal, and his associate Miss A. Grace McGorman. Mr. Lawson begins his sixth year at Hopewell Hill and the REVIEW extends its congratulations, wishing him and his associate another happy and prosperous year.

Misses Maud Kavanah, Mascarene, A. M. Waldron, Oak Bay, Lucy McKenize, Scotch Ridge, and F. G. Calder, Whitehead, Charlotte Co., have, by means of school entertainments, added materially to their school appliances.

Mr. T. E. McLeod, teacher at Grand Harbor, Grand Manan, assisted by residents of that district, has largely added to his school library and apparatus. Mr. McLeod has accepted the principalship of the superior school at Apohaqui, Kings Co.

Miss Stella Kelly, teacher at Coldbrook, St. John Co., assisted by friends from St. John, has been able to add largely to her school apparatus.

Inspector Carter hopes to be able to carry out the following programme of visitation of schools for the present term: January and part of February, schools on the mainland of Charlotte Co.; last part of February and March, schools in St. John and Kings Counties; April and May, schools in St. John city, S. and the towns of Charlotte County; June, the Islands of Charlotte County.

The semi-annual conference of the Chief Superintendent, (N. B.) with the inspectors was held in Fredericton, beginning January 4th and continuing two days. All the inspectors were present.

At the annual meeting last held, at North Head, Grand Manan, it was voted, subject to the approval of the Board of Education, to carry into effect the provisions of the Act passed recently for the conveyance of pupils to the central school. This is believed to be the first move in that direction in New Brunswick.

Misses Maud Hannah, Carrie Young and Bessie Myles, of the St. John teaching staff, have resigned. The REVIEW extends congratulations, not to the school board, but to the fortunate young men.

The retirement of Miss Madeline Sisson, of the St. Stephen staff, owing to ill health, is much regretted.

Mr. C. H. Acheson has been appointed to the staff of the Moncton High School, Mr. S. A. Morrell to that of Fairville, Mr. W. A. Nelson to Milford, and Mr. Fred. Morrell to Grand Harbor, Grand Manan.

Statistics show that Massachusetts spends \$25 yearly on an average for each pupil in her schools. For the United States the sum is \$15. The average production of the whole nation was forty cents a day for each inhabitant; that of Massachusetts was eighty cents. From the standpoint of dollars and cents alone education pays. It is concluded that where an illiterate person will produce \$1, a person able to read and write fairly well will produce \$2; a person having a good common school education will produce \$3; a high school graduate will produce \$4; and a college graduate will produce \$6; and better than all this an education will not only make money—it will make money worth having.

As the result of a calculation made by a Moncton school trustee the school books needed by a pupil who has completed the high school course in New Brunswick will have cost nearly \$25. Of course the largest item in the cost is for books used in the most advanced grades. When the matter is considered this amount does not seem excessive, though this is not the opinion of the trustee. It must be remembered that one set of books does for a family. It is not probable that the pupil's school books, if the course be completed, will cost more than one-half what his morning paper will amount to for the same time. Why not try the system of free texts? It will reduce the cost more than one-half.

RECENT BOOKS.

The interest awakened in child-study is shown to a great extent by the many books and articles on this subject that have recently appeared. Among these, one that will awaken curiosity and quicken thought in this direction, is the book published recently by Harper Brothers.¹ It is the record of a child from his first to his eighth year, containing his sayings and doings, illustrated by over five hundred original drawings by the child. The book is one that parents and teachers will be deeply interested in, as it shows how children, under proper direction, may develop naturally and be always happy if not interfered with too much in their activities.

The *Hiawatha Primer*² marks a new era in children's readers. It gives Longfellow's story of *Hiawatha*, with a dozen full page (eight colored) and over sixty part page illustrations. It has reading and writing lessons in vertical script, and so many other attractive features that it will fascinate young children and open their eyes to some of the charms of literature. Miss Holbrook has shown us—what the authors of the old-fashioned, stupid primers never seemed to fathom—that real literature may be introduced to children both in and out of school when they begin to read.

The study of Physical Geography³ is in itself so fascinating that one turns with interest to this new book³ to see how the authors treat the subject. They have devoted themselves rigidly to the subject under consideration, confining themselves to the earth and its atmosphere, disregarding the stellar world beyond and geologic periods far remote. Man and his environment, distribution of plants and animals, the ocean and its work, are all treated with a fulness that leave nothing to be desired. The text and illustrations are creditable to the publishers.

These Exercises⁴ will be useful to teachers of advanced pupils. The selections are well chosen from the best authors,

¹A STUDY OF A CHILD, by Louise E. Hogan. Cloth; pages 220; Publishers, Harper Brothers, New York and London.

²THE HIAWATHA PRIMER, by Florence Holbrook. Cloth; pages 139; price 40 cents. Houghton, Mifflin & Company, Publishers, Boston.

³PHYSICAL GEOGRAPHY, by William Morris Davis, Professor of Physical Geography in Harvard University, assisted by W. H. Snyder. Cloth; pages 428, with maps and plates; price \$1.40. Publishers, Ginn & Co., Boston.

⁴ANALYSIS, PARSING AND SUPPLEMENTARY READING, by Rev. J. O. Miller, M. A., Principal of Ridley College. Boards; pages, 72; price 20 cents. The Copp, Clark Company, Publishers, Toronto.

and will serve the purposes of supplementary reading better than for any purposes of analysis and parsing; and this we hope, was the author's intention.

This volume by Miss Catherwood,¹ contains a condensed but carefully balanced set of narrative-stories covering the entire period of the discovery and occupation of the middle west by the French. It begins with the voyage of Marquette and Joliet, and ends with the surrender of Fort Chartres to the English. Its geography and historical detail are graphic and exact. This is the first time that young readers have been offered in so small a space, striking pictures covering the entire period of a race's occupation of the west.

*Bird World*² is another very attractive reader for intermediate grades. Mr. J. H. Stickney, well known for his series of readers, has associated with him Mr. Hoffmann, a sympathetic student of birds. The book is dedicated to the publishers, Ginn & Co., who in this as in other works of a similar kind, have spared no pains to make the text and illustrations attractive.

A book with such an unusual title as *Ideals and Programmes*³ should have something to repay the reader for a perusal, and he will not be disappointed. The book is written by a practical teacher, one in sympathy with pupils, and with a strong, clear, common sense manifested in all the methods of dealing with pupils.

In the four books of foreign classics named below,⁴ students will find selections suitable to individual needs and requirements.

A more valuable and interesting work than Ratzell's *History of Mankind*⁵ it would be difficult to think of for the general student. Dealing with the different nations of the earth, their habits, customs, mode of living, characteristics, with illustrations of racial types, it forms a library in itself, and one that the student will be sure to find instructive as well as interesting. Part 30, with an index, has just come to hand, completing this valuable work.

¹HEROES OF THE MIDDLE WEST, by Mary Hartwell Catherwood. Cloth; pages 141; price 60 cents. Publishers, Ginn & Co., Boston, Mass.

²BIRD WORLD, a book for children, by J. H. Stickney and Ralph Hoffmann. Cloth; pages, 214; price 70 cents. Ginn & Co., Publishers, Boston.

³IDEALS AND PROGRAMMES, by Jean L. Gowdy, Principal Washington School, Minneapolis, Minn. Cloth; pages, 102; price 75 cents. Publishers, C. W. Bardeen, Syracuse, N. Y.

⁴THE EASIEST GERMAN READING FOR LEARNERS YOUNG OR OLD, by George Hempl, Ph.D. Cloth; pages, 82; price 45 cents. Ginn & Co., Publishers.

MON ONCLE ET MON CURÉ, by Jean de la Brète, adapted and edited by E. C. Goldberg, M. A. Cloth; pages, 150; price 2s 6d. Publishers, Macmillan & Co., London.

LE SIÈGE DE PARIS, by Francisque Sarcey, edited with introduction and notes by I. H. A. Spiers. Boards; pages, 188; price 35 cents.

AUF DER SONNENSEITE, selected and edited with notes and vocabulary by Dr. Wilhelm Bernhardt. Boards; pages, 146; price 35 cents. Both in *Heath's Modern Language Series*; Publishers, D. C. Heath & Co., Boston.

⁵THE HISTORY OF MANKIND, by F. Ratzell, Part 30. Complete in 30 monthly parts. Price 1s. each. Publishers, Macmillan & Co., London, Eng.

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LITTLE PEOPLE'S SEAT WORK, No. 2. For Second Grade. Arranged by Miss M. Nimmons, Winnipeg. 64 pages. Price 10 cents.

ENGLISH GRAMMAR FOR BEGINNERS. By Alfred S. West, M. A., author of Elements of English Grammar. Price 25 cents.

HIGH SCHOOL CADET DRILL MANUAL. Arranged by W. Bennett Munro, M. A., LL. B., Capt. 42nd Batt. Cloth 40 cents.

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JANUARY MAGAZINES.

An attractive feature of the January *Ladies' Home Journal* is the collection of photographs of Some Remarkable Old Ladies artistically grouped on a single page. Of the fourteen old ladies, all are above four score, and five are centenarians. Among the latter is Mrs. Harriet B. Townsend, St. Stephen, N. B., 102 years old. The photograph of each one reflects the beauty of a happy life of well-doing—a beauty that time cannot obliterate. . . . Several features of striking interest will be found in the opening numbers of *The Living Age* for the new year. The number for January 14, gives the full text of Lord Rosebery's recent address on Literary Statesmen, which has been the subject of general comment; an article from Blackwood on The Ethics of Conquest, which relates to the Philippines; and a bright paper on The Madness of Mr. Kipling. . . . *The Canadian Magazine* for January has three articles devoted to a discussion of our relations with the United States. In the one by Robt. McConnell, of Halifax, it is maintained that "there is room enough and scope enough on this continent for the two Anglo-Saxon nations, Canada and the United States—daughters of a common mother, custodians of a common liberty—to work out their separate destinies without being jealous of each other or coveting each other's patrimony and birthright." . . . In the January *Atlantic* LeBaron R. Briggs, Dean of Harvard College, arraigns frankly and sharply many parents for sins which are visited on their children, or committed by them in their college courses. Such college misbehavers are so because their parents have so formed them, or because their fathers look with indifference, or even approval, upon conduct which they ought to condemn. . . . In *Appleton's Popular Science Monthly* J. Norman Lockyer, the astronomer, reviews The History of Scientific Instruction, and calls attention to some of the more serious defects in the modern school. G. T. W. Patrick asks the question, Should Children under Ten Years of Age Learn to Read and Write? and finds a negative answer; that the necessary methods of instruction in these branches are not adapted to either the bodily or mental conditions of the children; that nature study, morals, manual dexterity, and spoken language may be taught more profitably at that time, while these sedentary branches should be remanded to a later period. . . . In the January *Century* there are interesting articles on War and on Peace. Chas. G. D. Roberts contributes a vigorous poem on Jonathan and John. Mr. Herford's Child's Primer of Natural History, the third instalment of which appears this month, bids fair to become a classic in its kind. . . . *St. Nicholas* starts out upon the new year with drums beating and colors flying,

though it is wholly innocent of references to the war. Its nearest approach to the subject is the opening article, Three Little Spanish Princesses, by Isabel McDougall, with three full-page reproduction of paintings by the greatest of Spanish portrait painters, Velasquez. . . . The January number of *Chautauquan* contains an article by Miss Mary H. Krout on English Journalism, which is marked for its fairness and breadth. . . . Two valuable educational articles in *Forum* for January are: Social Ethics in the Schools, by Julia E. Bulkley, of the University of Chicago, and Are the Germans Still a Nation of Thinkers? by Rudolf Eucken, of the University of Jena.

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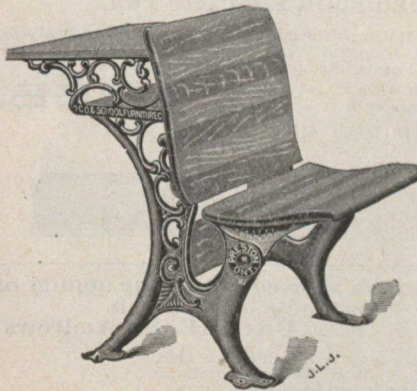
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