

THE EDUCATIONAL REVIEW.

FOR THE ATLANTIC PROVINCES OF CANADA.

VOL. II.

SAINT JOHN, N. B., MARCH, 1889.

No. 10.

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ST. JOHN, N. B., February, 1889.

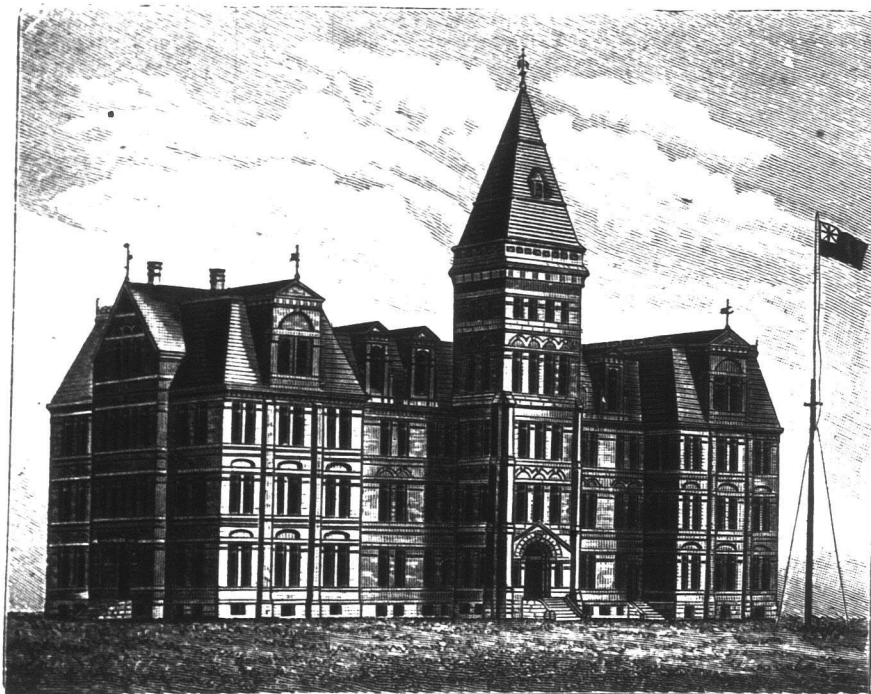
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The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

PUBLISHED MONTHLY.

ST. JOHN, N. B., MARCH, 1889.

VOL. II. No. 10

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Notice of Change of Address should be promptly sent to EDUCATIONAL REVIEW, St. John, N. B. The former as well as the new address should be given.

EDITORIAL NOTES.

SEE the advertisement of a teacher on page 199.

WE resume our course of plant lessons in this issue. In the April number will be found minuter details accompanied by drawings.

THE proposal to impose a postal tax on monthly publications in the Dominion of Canada would realize a revenue of perhaps \$2,000 a year, and cripple a literature that needs fostering. *Cui bono?*

REV. DR. PATTERSON, of Pictou, N. S., has handed over to Dalhousie University his valuable collection of objects, illustrative of the stone age.

WE have received the report of the Halifax School for the Blind. Among the excellent features of this admirably conducted and useful institution which mark the year just closed, are the introduction of the kindergarten methods and the establishment of a technical department for the training of the boys.

THE cut of the Canadian Pine Grosbeak in this issue, as well as that of the American robin to appear in our next, was made from drawings by Mr. Harry Piers, a graduate of the Halifax County Academy, from specimens in the Down's collection of Nova Scotian birds belonging to the Provincial Museum, Halifax.

WE have made arrangements whereby we will receive new subscriptions to the *Forum* with a subscription to the REVIEW for \$5.00. The price of the *Forum* alone is \$5.00 a year. This is an exceptional opportunity for every reader of the REVIEW to secure the *Forum*.

A good library has been instituted in connection with the Upper Woodstock, N. B., schools. The teachers have been chiefly instrumental in making this desirable addition to the educational facilities of the schools, and their efforts in this line have met with a very generous response. Some 150 volumes of standard works are now in use, and it is expected that this number will receive additions from time to time from friends of the schools.—*Carleton Sentinel*.

WE are pleased to notice this evidence of progress, and would like to chronicle the fact that every school in the Atlantic Provinces has a school library, in which, first of all, a good encyclopædia is a necessity; then books of history, travel, science, etc., should have a place.

READ the advertisement of the *Forum* in another column. Send \$5.00 and receive that magazine and the REVIEW for one year. Address: "EDUCATIONAL REVIEW, St. John, N. B."

IN the March *Forum* is an article on "Canada and the United States," by Dr. J. G. Schurman, a native of Prince Edward Island, and now Professor of Philosophy in Cornell University. He is the latest contributor to the discussion in the *Forum* of the possible annexation of Canada to the United States. Prof. Schurman sees so great a career for Canada that he opposes annexation. He reviews the history of the provinces, describes their vast territory and resources, and concludes that in their development a rapidly increasing population will find labor and riches; and that the future holds too large a promise for Canadians to be willing to make such a breach of

their traditions as to become a part of the United States. "Look at a map," he writes, "and you will see that within the latitude of Canada are included, in the Old World, Norway and Sweden, European and Asiatic Russia (excepting only the most southerly projection), Denmark, Prussia, Holland, Belgium, the northern section of France, and the whole of Great Britain and Ireland. From these countries came the races that succeeded Rome in bearing, as they still largely bear, the civilization of the world. And analogy suggests that under the bracing climate of Canada, in centuries yet to be, civilization may, in the New World, find its sturdiest supporters. The new provinces will, in a very few years, be the regal home of prosperous millions. Nature has said it."

THE EDUCATIONAL REVIEW for February has a heap more of good things for teachers. The editors are unremitting in their labors to make the REVIEW something of practical worth to the teaching fraternity. They are succeeding well. Does every teacher in these provinces get the benefit of its pages monthly? —*Truro Sun*.

WE are requested to ask N. B. teachers who are in want of schools to furnish the inspectors of their respective districts with their address.

A SUMMER SCHOOL OF LANGUAGES.

Various persons have been mooting the extension of "Summer School" work beyond the province of elementary science. We should be the last to encourage filling up of vacation with labor, unless there should be an urgent cause for it. Yet sometimes labor and recreation may be combined. Whether that can be done or not on the proposed lines must be answered by our readers; and, therefore, we bring to their notice a suggestion just made by an eminent Nova Scotian linguist who is teaching in one of the great American universities. He writes: "Would it be possible to have, either separate or in connection with it (the Summer School of Science), a 'Summer School of Languages?' We have several of these here and they have proved of great benefit to teachers, very many of whom attend them. The idea is simply an idea submitted to you, and has not assumed any definite shape in my mind. The outline of it would be something like this: Halifax, as a central and easily reached point for a location; Dalhousie, for lecture rooms. Three courses, English, French and German. Classes for beginners and for advanced students. I now speak more particularly of foreign languages—readings and translations of classical and modern works—outlines of

literary history—comprehensive systems of study and explanation of main differences between English and foreign languages, chiefly difficulties of accidence and syntax elucidated by history of language. Weekly lectures in English on social and historical points illustrating and explaining literature. Course of, say, six weeks, from 1st July to middle of August. Attractions of Halifax as a summer resort would aid. There would, of course, be privileges of various kinds to students of the school."

THE FIRST STEP TAKEN.

The school commissioners of Dartmouth have voted \$600 for a kindergarten in connection with the public schools. The town of Dartmouth, it appears, has taken the lead in the Atlantic Provinces in the introduction of the kindergarten into the public school system. This honor is quite in keeping with the progressive spirit of this town for a number of years past. It is very fitting, too, that Dartmouth should be the residence of the energetic and accomplished president of the Nova Scotia Frœbel Institute, who has done so much to arouse and hold attention to this important phase of education. It is now but a question of time—time to learn the advantages they have been missing; when the people of our cities and towns will arise and demand the kindergarten as the foundation of their free school system.

The open letter in another column, addressed to school boards by Mrs. Condon, the President of the Nova Scotia Frœbel Institute, contains a plea for the introduction of the kindergarten system which should receive the marked attention of those to whom is entrusted local educational development. The earnestness of the plea and the soundness of the arguments employed are creditable alike to the broad philanthropy and self-sacrificing devotion of a lady who has given her mature years and a ripe judgment to solving the great problem of primary education.

MCGILL UNIVERSITY.

We have received the annual report of McGill University, Montreal, which contains a number of interesting facts concerning the progress that is being made in this great educational institution. Of degrees in course 102 were given last year, raising the number of its professional graduates to 1440 and that of graduates in arts to 449. The whole university at present consists of McGill college with four faculties of law, medicine, arts and applied science, with about 50 professors and 650 students, Morrin college, Quebec and St. Francis college, Richmond, four theological colleges and the normal school which is practically a professional college for teachers.

The development of the faculty of arts in recent years has been very rapid, more especially in connection with the addition of the Donalda special course for women, which has attracted a large number of students. Independently of this, however, the number of male students has rapidly increased. This is shown in a novel manner by a diagram prepared by the Dean of the faculty and attached to the report.

The total number in the faculty has doubled in about five years, viz: 310 against 157 in 1884. The number of men has doubled in 14 years. The number in all the faculties has doubled in about 25 years, (576 in 1888, against 291 in 1863).

MANUAL TRAINING IN THE SCHOOLS.

A valued correspondent who has been studying educational problems in the United States, writes:

"I was delighted and amazed at the educational progress in the States; the manual training was wonderful; and what a blessing it is proving in the south, where it will be the redemption of the colored people! The testimony was unvarying on one point, that so far from its interfering with scholarship, those taking it did their other studies the better for it, and the younger boys did far better with tools than the older ones, and were more disposed to carefully follow the directions. It was pleasant to find that it was not treated as a mere 'bread and butter' study, but as a valuable means of intellectual development and highly conducive to morality."

Revised Course of Instruction for N. B. Schools.

We have received an advance copy of the Revised Course of Instruction for N. B. Schools. This, which has been under consideration for some time past, and has received the approval of the board of education, goes into effect on the first of July next.

We regret that the length of this revised course—together with the late hour at which it came to hand—prevents our publishing it in full. We can only refer in a general way to a few of the changes made.

The revision leaves untouched the principles and subjects which formed the groundwork of the original course. Greater prominence has been given to those subjects which may be regarded as more useful, while at the same time the intellectual portion of the course has apparently suffered no diminution, but has been made more practical in character.

The superintendent and his co-workers, who, aided by suggestions from the teachers of the province, have made this revision, have taken a progressive step in our educational history, which will commend itself to all progressive teachers.

The following outline of the more prominent

features of the revised course are taken from the superintendent's forthcoming report:

The changes which have been made relate more particularly to the subjects of industrial drawing and those embraced under the head of Useful Knowledge. The study of industrial drawing has undoubtedly produced good results, though these fall short of what was expected when the subject was introduced. The course, for one thing, was too extensive, and few even in cities and towns have been able to complete it. It has also failed to call into exercise in any efficient degree the powers which it is the object of drawing to cultivate. It is believed that these defects are supplied in the amended course. The new drawing series—*Prang's Shorter Course in Form Study and Drawing*—comprises five books with an additional book in preparation dealing with geometrical drawing. This course is begun in Standard III and completed in Standard VIII. in graded schools—one book covering a year's work. In ungraded schools the subject is first taken up in Standard III. also, and the instruction for the first year is limited to the principles and exercises contained in the first book, but embraces two books during each of the next two years with simple geometrical exercises (taught orally) during the latter year. * * * * * The shorter course in Form Study and Drawing provides for the training of the hand as well as the eye. It provides for the examination of objects both by sight and touch, for making and modelling them before representing or drawing them. The practice of making the objects from paper, pasteboard, etc., by folding, clipping and cutting and of modelling them from clay introduces into schools, without disturbing their organic character or general aim, that kind of manual training which is daily becoming more and more important. The course also secures ability to make working drawings of objects and afterwards to make the object from the working drawings, to draw pictures from the actual object and to design and draw arrangements for decorations.

The requirements under the head of Useful Knowledge have, in most of the standards, been simplified and made more definite. The principles of classification have been deferred till the higher standards are reached, when the pupils from a wider acquaintance with facts, will be better prepared to deal with the subject. The use of Bailey's Natural History as a text-book is begun in Standard VI. of the graded course, and in Standard IV. in ungraded schools. The preliminary instruction on this subject is to be given orally in the underlying grades as indicated in the course. Lessons in natural history, whether given orally or prepared from the text-book, are of very little value, either as respects educative results or the acquisition of knowledge—hence the course enjoins the use of specimens. Lessons on the human system and how to take care of it are introduced from the outset and continued through the first six standards. These lessons will be found not only useful in themselves, but valuable as a means in leading the pupil up to an intelligent study of Palmer's Temperance Teachings of Science. The text is begun in Standard VI. Oral instruction on the effects of alcohol on the human system is begun in Standard IV., thus securing instruction on the harmful effects of intoxicating drinks for all pupils capable of receiv-

ing it. The course suggests that whenever it is practicable illustrative experiments be given on the lessons in the text-book. In ungraded schools formal lessons on the human system are not prescribed for pupils of the first three standards, but teachers are required to give the classes instruction on the conditions of health as specified in the note prefixed to the course. The text-book on Temperance Teachings is introduced in Standard IV., and explanatory lessons on the human system are to be given orally as aids to the intelligent study of it. The subject of physics is begun in Standard VI. and completed in Standard VIII. The teacher—not the pupil—is referred to Hotze's First Lessons in Physics as a guide to the instructions which are to be given orally.

A very few remarks on some of the other changes of the course must suffice. Standards III. and IV. of ungraded schools, which have heretofore embraced a period of one year and a half each, have been so modified as to form three standards, each covering a year. There are thus five standards in these schools instead of four as formerly. It is hoped that this provision will lead to a more exact classification than has yet obtained in these schools. It will be seen from the provision respecting the employment of a qualified assistant that the general interests of the school are guarded in the event of pupils taking the more advanced subjects after completing the prescribed course, and also that if the five standards are taught and the enrolled number of pupils fifty or upwards, the employment of a class-room assistant is *obligatory*.

Object lessons as a separate subject have been struck out of the graded course. They are amply provided for under useful knowledge lessons and form study, and can be thus much more effectively taught.

The lesson sheets which are provided for use in connection with Reader I. will supply a much needed want. They will afford the teacher an opportunity of drilling the class upon sentences, phrases or words in any order, and thus secure their ready recognition wherever and whenever met. Many teachers have, it is true, been in the habit of reprinting the lessons on the blackboard for this purpose, and others have sought to test the pupils from the book, but both practices have occasioned much loss of time.

The course in geography is more complete—supplying some important omissions and defining more clearly the requirements in respect of map drawing. General and not detailed geography is asked for and more attention is suggested to physical features than to topography.

The course in mathematics has been modified in some important respects. Instruction in arithmetic (not including number in the primary grades) is limited to the principles contained in the elementary text-book, except that instruction is to be given orally to pupils in Standard VIII. on the square root and its applications. Provision has been made as indicated in the course for the omission of certain portions which the teacher may deem unessential till a later stage. Considerable attention is to be given to business arithmetic, commercial forms and the practical application of rules. With respect to geometry it has been assumed that geometrical conceptions have been gained through exercises in form study and drawing before the subject is formally taken up, and hence the pupil is introduced earlier than in the original course to the logic demonstration of propositions.

A small but a very important addition has been made to the requirement in algebra for Standard VIII. It is prescribed that easy equations and problems be taken up. As the common school course is completed with Standard VIII., and many pupils then leave school for life, it is very desirable that they should carry with them some knowledge of the practical application of the subject.

The requirement in Latin has been reduced. Few pupils have found it possible to overtake the allotment previously prescribed."

WHAT SHALL WE STUDY?

We do not suppose that many will dispute the accuracy of our assertion, that there are few educational questions of greater moment than the one at the head of this paper. And if we take into consideration the amount of discussion which has been expended upon it, the distinguished men in all departments of thought and activity who have taken a leading part in presenting their views on it to the public, and the issues that are involved in its settlement on a rational basis, we shall not overstate its importance if we pronounce it supreme.

A satisfactory answer to the question takes precedence of all speculation respecting methods of instruction. It embraces the instruments by which the educational wants of the community are to be satisfied, the subjects which are best fitted to evoke and cultivate the talents, tastes and character of the children and youth, and equip them for an efficient performance of the duties of life both as individuals and members of a great society. It therefore imposes upon us the obligation of specifying what subjects ought to engage the attention of the pupils in elementary schools; what higher branches ought, in addition, to be included in a course for intermediate schools, and what would be our idea of a curriculum for the university. But as study should not end when the youth leaves school or college to enter upon the business of life, it is incumbent upon us to complete our answer to the question, "What shall we study?" by offering some suggestions as to the employment of intervals of leisure, and the desirability of continuing in after life that discipline which most of all contributes to form the taste and train the intellect.

In the first place we proceed to inquire what ought to be the subjects of instruction in the elementary school? Schools of this class affect and interest every section of the people more intimately and directly than those of a higher grade. Located in every settlement, village or town they bring educative influences within the reach of the poor man, prepare his children for the occupation of farmer or mechanic, and if he has one of more than ordinary promise that

child has there the opportunity of taking the first step in a career, to the possibilities of which—from the nature of constitutional government and the educational facilities of the land—we cannot set any limits. And here, also, occupying the same bench, learning the same lessons, subject to the same discipline, and competing in the same class, the son of a poor man and the son of parents in more fortunate circumstances are together stimulated to exertion, and know no rivalry but in industry and talent. Both, at this stage in their educational life, have to work together at the same lessons, whatever their prospects for the future. They must be taught to read, write and cipher. This is the fundamental duty of the elementary school teacher. But, besides, he is bound to direct his pupils to such subjects as shall promote the formation of a steadfast and honorable character, cultivate their general intelligence, and qualify them to discharge in after years their duties as citizens. And what teacher is there, who is worthy of the name, who will not spontaneously sacrifice a small fraction of his leisure, that his more talented and ambitious scholars may enter upon more advanced studies?

There is no difference of opinion respecting the necessity of teaching boys and girls reading, writing and arithmetic. All are convinced that their children must acquire a certain familiarity and ease in these exercises to succeed in any vocation whatever. But there is more involved in the trio of R's than people generally imagine. *Reading* requires a knowledge of the meanings of words and the construction of sentences, a comprehension of the subject-matter of the passage which is read, and the faculty by emphasis and inflection to express what the reader regards to be its true rendering. Hence, English grammar is an indispensable branch of study in the elementary school; and not only analysis and parsing but composition as well. To be able to write down his thoughts in tolerable English is, undoubtedly, one of the most valuable acquisitions with which a boy can leave school, whether we view it as an intellectual exercise or in its utilitarian aspect. And the lessons which he reads in his class-book introduce him to the study of biography, natural history, geography, physical science and literature. They suggest matters upon which he desires more information. Books are consulted and the teacher is questioned; and as his difficulties are solved and his knowledge increases, he can look abroad upon nature with an intelligent eye and an inquiring mind and derive both pleasure and profit from the survey. He learns to observe and think and listen with an attentive ear, and if his interest has been effectually aroused, when he leaves

school and enters upon the occupation of the farm or the workshop he will find his recreation and delight in the pursuits to which he was introduced in the class-room, and the serious business of the day greatly facilitated by the possession of industrious habits and a trained intelligence.

But it is the right and duty of every man in a free country to take his share in its government. That he may do this as a well-informed, independent member of the community, and that he may vote and otherwise conduct himself as a man deserving the privilege of citizenship, he ought to understand the constitution under which he lives and the various steps by which it emerged from its primitive form, and be able to trace the struggle for liberty of thought and action, in Great Britain, by which these blessings were secured, and in consequence of which they have become our inheritance. It is incumbent upon him to know the history of the race to which he belongs, and the country of which he is a citizen. He ought to be familiar with the great questions which agitates the public mind with every measure which has for its object the elevation of the people and the amelioration of their condition, and with the plans which are proposed for the development of the trade and commerce of the country, its settlement and the opening up of its resources. Hence the necessity for the study of history and geography, not as accomplishments which lead to no practical result, but as a preparative for a full, untrammelled and manly discharge of public duty.

There are other, and for some pupils necessary, subjects which demand attention. Elementary science having particular reference to the special industry of the neighborhood, whether agriculture, mechanics, natural history, or some other branch must have allotted to its study a reasonable portion of time. Latin, also, is required by those who propose entering one of the learned professions. But instruction in this subject need not interfere with or usurp the time which might be devoted to some other purpose. Being only the grammar of the language, it can be undertaken by the whole of the senior class; and to a thinking lad, whatever his business may afterwards be, the study of the Latin grammar—from the assistance he thereby receives in understanding grammatical principles—will prove of great service in the study of his own language.

Such, with music and drawing where they can be taught, would be our course of studies in the elementary school. It is eminently practical in as far as every subject comprised in it, if rightly studied, will lead to some definite and useful end. Nor does it aim too high. Its intention is to send boys out into

the world to be farmers or mechanics. Not as mere mechanics, but as well educated, thinking, reading men, and to encourage others whose ambition and ability mark them out for a different career, to take the first step in their outward course. It has been customary to talk of the farmer and mechanic as the bone and sinew of the country, but unless the education provided for them be calculated to quicken their intellect and elevate their character they will never be anything else. We believe that such an education can be based upon the course delineated above.

(To be continued.)

Atlantic Province Students at McGill.

Last month by the kindness of a correspondent at Harvard we were able to lay before our readers a complete list of Atlantic Province students at that university. Below will be found a list of students from these Provinces now in attendance at McGill University, Montreal, prepared for the REVIEW by a student from St. John. As will be seen a large majority of these are taking the course in medicine, there being no less than fifty, while in the courses in arts and science there are fifteen students, making a total of sixty-five from the Atlantic Provinces.

In Medicine.

NOVA SCOTIA.

C. P. Bissett, River Bourgeois.
H. B. Calkin, Kentville.
G. G. Campbell, Truro.
R. J. Chipman, Halifax.
J. W. Clarke, Tatamagouche.
F. G. Corbin, Bedford.
F. G. Esson, Halifax.
R. W. Fletcher, Londonderry.
R. T. Glendenning, Amherst.
W. H. Hattie, New Glasgow.
W. E. Jenkins, Conquerell.
H. V. Kent, Truro.
A. Love, New Glasgow.
A. I. Mader, New Canada.
W. S. Morrow, Halifax.
D. A. Murray, Back Meadows.
H. H. McKay, Pictou.
T. H. McKinnon, Lockport.
J. H. McMillan, Pictou.
J. Ross, Halifax.
T. H. Smith, North Sydney.
F. S. Yorston, Truro.

NEW BRUNSWICK.

G. A. Addy, St. John.
A. W. K. Akerly, Fredericton.
E. J. Broderick, "
A. D. Coburn, "
W. L. Ellis, St. John.
W. F. Hamilton, Sackville.
J. D. Harrison, Fredericton.
J. Hayes, Nelson.

DuV. Jack, Fredericton.
A. A. Lewin, St. John.
O. E. Moorehouse, Gibson.
F. X. Morris, St. John.
H. D. McManus, Fredericton.
H. H. McNally, "
J. Peake, "
W. T. Scovill, "
J. B. Travers, St. John.

P. E. ISLAND.

G. A. Brown, Charlottetown.
D. A. Bruce, Orwell.
E. J. Keir, Princeton.
M. McL. Martin, Brown's Creek.
J. M. Martin, "
C. S. Mathieson, Harrington.
D. T. McKay, Clifton.
A. I. McKinnon, Orwell.
A. McJellan, Indian River.
A. A. McLellan, Summerside.
H. S. McLeod, Charlottetown.

Arts.

NOVA SCOTIA.

J. R. Dobson, Pictou.
W. R. Ellenwood, Yarmouth.
N. McLeod, Lochsides.
T. A. Mitchell, Linden.
C. Moore, Amherst.
H. M. Tory, Guysboro.
C. J. Tory, "

P. E. ISLAND.

D. J. Fraser, Alberton.

Science.

NOVA SCOTIA.

G. C. Cooke, Canso.
G. Mitchell, New Glasgow.
J. Purves, Sidney.
A. W. Strong, Halifax.
J. P. Tuplin, Pictou.
P. E. ISLAND.
S. R. Lea, Charlottetown.
L. Simpson, Summerside.

The 750 students in attendance at the University Medical College, New York, come from all parts of the United States, Canada, and a few from Europe. Nova Scotia is well represented, there being twelve gentlemen from this province, as follows:

A. Archibald, Musquodoboit, Halifax.
S. Anderson, Pictou.
O. F. Best, Wolfville.
M. S. Dickson, Pictou.
C. H. Eaton, Canning.
F. F. Eaton, B. A., Parrsboro.
H. M. Hare, Bedford, Halifax.
L. J. Lovitt, Kentville.
C. H. Miller, B. A., Bridgetown.
D. H. McKenzie, Pictou.
J. W. Proctor, M. D., North Sydney.
E. J. Torey, B. A., Windsor.



GEORGE R. PARKIN, M. A.

Geo. R. Parkin, M. A., recently head master of the Collegiate School, Fredericton, and now on his way to Australia as commissioner of the Imperial Federation Scheme, is a native of New Brunswick. He was born at Salisbury, in Westmorland county, in 1846. Mr. Parkin's tastes are English as well as Canadian, which may be partly explained by the fact that his father was born in Yorkshire, England, whilst his mother was a native Canadian.

Mr. Parkin received his early education in the common schools of his native place; afterwards attended the normal school of New Brunswick, and began to teach while in the seventeenth year of his age. He entered the University of New Brunswick at the age of nineteen, and was graduated three years after. Among his fellow-students were men who have risen to distinguished positions in politics and literature: Hon. Geo. E. Foster, the present Minister of Finance; Hon. Dr. Pugsley, speaker of the House of Assembly of New Brunswick; Hon. Jas. Mitchell, surveyor-general of New Brunswick; Prof. McCurdy, of Toronto, and others. Mr. Parkin was no less distinguished for his ability as a student than for the zest with which he entered into all the exercises of student life. He won the Douglas gold medal for the English essay in his freshman year—a distinction never before achieved by a first-year student; although Mr. Geo. E. Foster won it the following year under like conditions. Mr. Parkin also won prizes in natural science during each year of his college course.

After his graduation Mr. Parkin taught the grammar school at Bathurst, N. B., for four years, after which he assumed the headmastership of the collegiate school, Fredericton, which he has held for nearly seventeen years.

Mr. Parkin spent a year at Oxford (1873-4), and at the same time took the opportunity to become acquainted with the constitution of the great public schools of England. He drew inspiration from Arnold and Thring. From the former that inspiration which a great teacher bequeaths to his fellow-teachers, and which to-day influences Rugby and all England. With the latter Mr. Parkin laid the foundation of that sincere friendship which Mr. Thring acknowledged when he dedicated a volume of his addresses to "his fellow-worker over the seas."

To Mr. Parkin has been entrusted the work of writing the biography of the late head master of Uppingham school, a work on which he is now engaged, and in collecting materials for which he spent a large portion of last year in England.

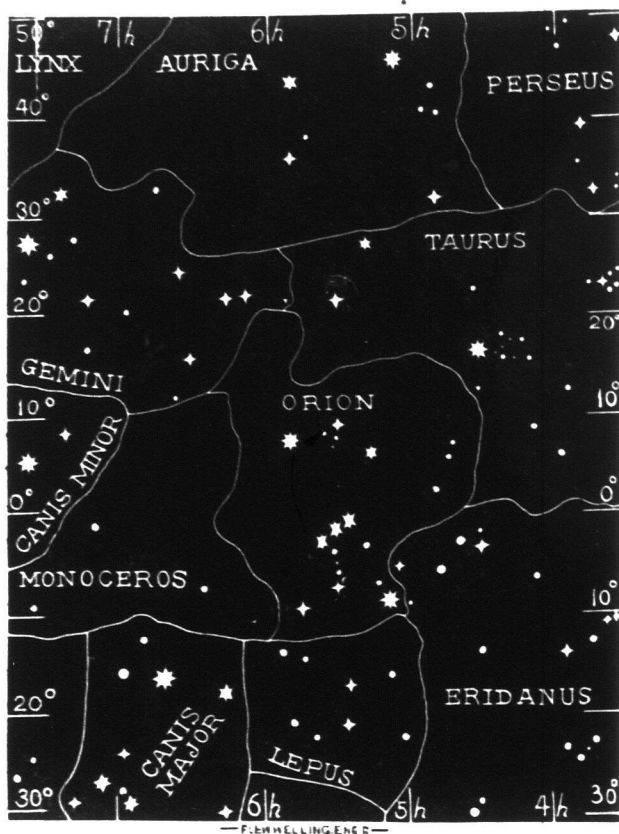
Mr. Parkin's intense energy and extraordinary capacity for work has led him in the course of a busy life to take an active part in many questions of the day. As a writer and speaker he is fluent, convincing and forcible. During his university career he was foremost as a debater, and while at Oxford was secretary of the great debating club of the undergraduates. His recent article in the *Century* magazine has attracted much favorable comment, and shows a skill in discussing a great public question that can only come from long and conscientious practice, and a power springing from intellectual activity and from deep and earnest convictions. As a teacher Mr. Parkin's influence and enthusiasm have tended to lay the foundation of character, and to promote the intellectual and moral activities of boys and girls in no ordinary degree. In the Educational Institute of the province, in which he always took a prominent part, he will be greatly missed.

In church and missionary work, on temperance and other questions of general good, Mr. Parkin has always given an active and influential support; while in social life his genial humor and ready powers of conversation always make him a welcome guest.

The selection of Mr. Parkin as commissioner to Canada and Australia, for the purpose of arousing public sentiment in favor of Imperial Federation, was not from chance. He has for years been an advocate with voice and pen of a closer union between the colonies and the mother country, and his earnest conviction of its practicability, aided by a ready eloquence, has won the attention of many statesmen on both sides of the Atlantic.

AMONG THE CONSTELLATIONS.

No. XI. ORION AND ITS NEIGHBORS.



Look how the floor of heaven
Is thick inlaid with patines of bright gold.
There's not the smallest orb which thou beholdest
But in his motion like an angel sings,
Still quiring to the young-eyed cherubins:
Such harmony is in immortal souls;
But whilst this muddy vesture of decay
Doth grossly close it in we cannot hear it.

—MERCHANT OF VENICE, Act V., Sc. I.

Orion.

Orion was a mighty ancient hunter, according to mythology. When figured on star maps, the three stars of second magnitude, called the "Yardstick," "Jacob's Staff," or the "Three Kings or Soothsayers," represent the belt. The three faint stars of the fifth, fourth and third magnitude, which form a pendant hanging from the belt, is called Orion's sword. The two upper bright stars are in the shoulders, and the two lower are in the feet.

The first magnitude star in the shoulder is Alpha Orionis, generally called *Betelgeuse*. It is a telescopic double and slightly variable. The second magnitude star in the other shoulder is Gamma, generally called *Bellatrix*. The equinoctial line passes immediately above the highest of the three seconds in the belt,

which is Delta, and is both a telescopic double star and a variable one to the extent of half a magnitude. Epsilon is the next second, about a degree distant; and Zeta is the third second magnitude star, about one degree from Epsilon. Zeta is a telescopic double star of the second and sixth magnitude.

The middle star, Theta, of the three forming the sword, is in the region of the most striking nebula in the heavens, the "great nebula in Orion." The third magnitude star below it is Iota.

The first magnitude star in the foot is Beta, called *Rigel*. The third magnitude star in the other foot is Kappa. The third magnitude star in the head is Lambda. The full names of these stars are, of course, Kappa Orionis, Lambda Orionis, etc.; the name of the individual star being put before the genitive case of the constellation, meaning in English respectively Kappa of Orion, Lambda of Orion, etc.

Canis Major.

Alpha Canis Majoris is the brightest fixed star in the heavens. It is called Sirius, and also the Dog Star. It is a double star, having an eight and a half magnitude companion. Beta is the second magnitude star next. Delta and Epsilon are the second magnitude stars below.

Lepus.

Lepus, the hare, has two-third magnitude stars, Alpha, the upper, a double, and Beta, the lower, a multiple star. There are six stars of the fourth magnitude. The proximity of Orion the hunter, the Greater Dog, and the Hare in the celestial field is very suggestive.

Eridanus.

The five third magnitude stars in the constellations going from left to right are Beta, Nu, Gamma, Delta, and Epsilon Eridani.

Canis Minor.

Alpha Canis Minoris, of the first magnitude, or Procyon, as it is called, forms with its neighbor-Beta, of the third magnitude, a couple of stars bearing some resemblance to the couple in Gemini.

Gemini.

Beta and Alpha Geminorum are respectively of the second and first magnitudes, and are called respectively Castor and Pollux. This constellation lies on the Zodiac. Castor is one of the most beautiful double stars (magnitudes 2.7 and 3.7), only five and one-half seconds apart. A small telescope will separate them. They revolve around each other once in one thousand years. Pollux has a number of very faint companions. Its third magnitude stars in order from left to right are Delta, Epsilon, Gamma, Mu, and Eta.

Taurus.

Alpha Tauri is a first magnitude star. It is known as *Aldebaran*, is reddish in color, and is situated in a cluster called the Hyades. The Pleiades, with one third magnitude and five fourth magnitude stars, is on the margin of the map, over 20° north declination. The brightest star in the group is known as *Alcyone*, and has been supposed to be the centre of our universe, about which our sun and the fixed stars may be revolving in tremendous circuit. Beta (Nath) is near the boundary of Auriga, and nearly below it is Zeta, of the third magnitude.

Auriga.

Alpha Aurigæ (*Capella*) is a splendid first. Beta is a second magnitude. The thirds are Theta and Iota, reading from left to right.

The Sun's Course.

In the third week of May the sun will appear just where 20° is marked on the map, right below the Pleiades. On the first of June it will be just below the fourth magnitude star, under the word Taurus. On the 21st of June it will cross the line 6h. R. A., and pass close above the two third magnitude stars, Eta and Mu Geminorum. On the first of July it will be nearly below the next third magnitude star, Epsilon Geminorum, and two or three days after the middle of July it will pass out on the left margin of our map near 20° N. D.

Astronomical Notes.

Venus is still the glory of the western sky. On the first of the month it was near the extreme eastern boundary of the constellation Pisces, and in the neighborhood of Alpha (second magnitude), and Beta (third magnitude), and Gamma (fourth magnitude), of Aries, which were a little above or to the north-east of the planet. Greatest brilliancy, March 25th.

Mars is still in Pisces and will not touch the boundary Aries until about the end of the month, when it will be near after sunset.

Mercury passes from Capricornus into Aquarius, about the 15th as a morning star.

Jupiter will be in Sagittarius, a morning star, culminating about five and a half hours before the sun on the 20th.

Saturn is an evening star in Cancer, near the boundary of Leo, nearly in the middle of a straight line from Epsilon Leonis and Alpha Cancri—near the latter. It is nearly stationary, but moving slowly towards the west and north during the month.

The moon enters upon the field of our star-map March 7th. On the 8th it will pass through the Hyades; on the 12th it will leave the field in Gemini, about 22° N. D. It will re-enter again April 4th, and on the 5th pass above the Hyades, leaving the field in Gemini a shade higher up.

FERNDALE SCHOOL.

No. XX. THE CANADIAN PINE GROSBEEK.

PINICOLA ENUCLEATOR CANADENSIS (515, A. O. U.)— $\frac{1}{2}$ Natural Size.

Do you ever think what wondrous beings these ?

Do you never think who made them and who taught
The dialect they speak, where melodies

Alone are the interpreters of thought ?

Whose household words are songs in many keys,
Sweeter than instrument of man e'er taught.

LONGFELLOW—*The Birds of Killingsworth.*

T. You have seen this bird which is so naturally mounted for us, and during the present winter, too. What do you call it ?

CHORUS. Robin! Winter Robin! Grosbeak! Pine Grosbeak!

T. You should know better than to call it a robin. Its bill, or the color of its red breast should make that very evident. Sometimes we hear of the arrival of robins in our country newspaper, when some one has only seen a flock of the Pine Grosbeak. Its name indicates that it is most at home in the forests among the—

CHORUS. Pines.

T. Yes, it is a "pine dweller" (*pinicola*), it likes the tender buds of the pine and fir, and is also able with its strong beak to shell out their cones; hence it is a "nut sheller" (*enucleator*). It is slightly different from the European species, therefore it has been dubbed the Canadian Pine Grosbeak.

S. What does "grosbeak" mean ?

T. What do you think ?

S. Perhaps "great beak," because it looks so stout and strong.

T. Very good. Let us measure our specimen. How long ?

S. About eight and a half inches.

T. Here is the male bird; describe its color.

S. Its head, a part of the back and all its breast is a bright rosy-red nearly.

T. The wings and tail?

S. Are blackish, with whitish edgings on the most of the feathers.

T. Here is the female. How does it differ?

S. It has a sort of an olive, ashy grey color where the male has a bright red.

T. When you find them here in winter where would you expect them to breed?

S. Somewhere further north in summertime. What kind of nests have they?

T. They say they are made of small twigs and rootlets, lined with finer fibres of grasses and the like. Eggs (generally four) pale greenish, blue spotted and blotched with dark brown markings and lilac shell spots. The egg is about an inch long and three-quarters of an inch thick. But let us look at the strong, conical bill. This stout, conical bill is more or less like the bills of the finches, buntings and sparrows, and is well adapted for crushing small seeds.

S. Is there a name for that kind of bill?

T. Yes. *Conirostral*, which means cone-billed. You can also notice that the line between the upper and lower half of the bill is not straight. It is turned downwards near the corner of the mouth. The conirostral birds, although very merry, are all more or less "down in the mouth," literally. What do you notice about the feet?

S. Three toes in front and one behind grasping the limb on which it is perched.

T. Yes; it may be called a "Percher." The bare part of the leg, just above the toes, is called the *tarsus* in all birds. Notice its plated covering.

S. What are "Perchers"? Do not all birds perch?

T. The structure of the feet of some, you observe, are better fitted for grasping a perch than others. In the case of our specimen the adaptation is very perfect; and all such birds we shall put into a class or *order*, as it is called, the "Perchers" proper.

S. How many *orders* of birds are there in Canada?

T. Fifteen. The fifteen *orders* are also represented in Nova Scotia.

S. How many different kinds of birds are in Canada and in Nova Scotia?

T. In all Canada a few over 550. In Nova Scotia alone about 240.

S. How many of these belong to the order "Perchers"?

T. In Canada, about 230; in Nova Scotia alone, about 90.

S. The "Perchers" must be a very large order, for it contains more than one-third of all the different kinds?

T. True. And they are divided into two sub-orders, the "songless perchers" and the "song perchers." There are only about a half a dozen of the former, while there are over eighty of the latter known in Nova Scotia. To which does the pine grosbeak belong?

S. To the song perchers. How many Nova Scotia song perchers belong to the conirostral family?

T. About two dozen. The family is known as the *Fringillidae*, and includes the finches, cross-bills, red-poll, snow bunting and sparrows, as well as the grosbeaks. At least a dozen of the *fringillidae* are so common in Nova Scotia, New Brunswick and Prince Edward Island, that every school boy should know them by their proper names.

We shall take the American robin for our next lesson. It belongs to another family of the song perchers.

Plants in their Homes and in the School Room.

No. 1. Methods Observations Records.

By all means begin the study of plants this month, and let the following plans, among others that the practical teacher will readily make for himself, be carried out:

First. Let every pupil have before him a specimen of the plant or plant part that is the subject of the day's lesson.

Second. All pupils, whether of the lower or higher grades, should be taught to examine the specimens and record their observations in notes, to be carefully written out afterwards with the specimens before them. They should be encouraged to make drawings of the objects, and to find out and record upon more minute examination after the lesson additional particulars to those brought out in class. Encourage them to ask questions, but be careful not to tell them what they should find out by careful trial. A discovery made by themselves will encourage them to search, and will tend to form the habit of closer observation.

Third. Let the pupils make a collection of the plants in their neighborhood, to be kept in the school room, which may be added to by future classes in the following years, and which in the end will be a thoroughly representative collection of the plants of the neighborhood. Read what is said on the subject of local museums in the December number of the REVIEW. Let there be a generous emulation in school districts to begin such a collection this spring, and record the results in the REVIEW for December, 1889.

But it may be said in regard to the first plan proposed above, there are no specimens obtainable now while the snow is on the ground. Are there not? Lift up your eyes! If the fields are not already green

they will be very soon. In a few weeks there will be such a luxuriance of vegetation that there will be a temptation to attempt too much, which will be fatal without the careful preparatory work which the weeks of March and early April will afford time for. In No. II. below will be found an outline for plant study that will occupy a week or two. Remember that if a large collection of the district flora be attempted this season there should be a systematic study of comparatively few species. These species should, if possible, represent the most abundant families and genera growing in the neighborhood. The pupil should be taught from one thoroughly mastered species to group round it others belonging to the same family. Take, for instance, the strawberry, violet, trillium. After a complete study of the characters of each he will be able to recognize other members of the rose or violet or lily family. Some there will be among the pupils who will be able to proceed much faster than others. Encourage these in all possible ways to independent research and study, but be careful that the general class work is carried on as indicated above.

Assign no lessons in the books at first. If home lessons are given let them be based on the study of the specimens before the class—to write notes, make drawings, and to more fully investigate certain points that the teacher may deem it wise, for the sake of creating a livelier interest, to put off for the next lesson, inciting the pupils to solve these problems for themselves. Thus they will naturally turn to the text-book for relief, and the teacher will soon see how much more attractive the book will become than if he had assigned a dull lesson to be committed to memory for a still duller recitation. Dr. Bailey's little text-book on "Natural History," and Gray's "How Plants Grow," will be found very useful for such reference.

No. II. A Child's Garden—Leaves and Flowers in Their Winter Homes.

There is something in the breath of spring that irresistibly tempts us abroad—to explore the cool woods; to linger beside the swollen stream, whose rushing waters are the sound of sweet music in our ears; to penetrate the narrow ravine, where the early spring flowers are found side by side with the late snows of winter. How fully do we all enjoy this return of life to earth!

To heighten the enjoyment that this awakening life brings, show how these plants begin life, how they expand and blossom, and finally die after bringing their seeds, which promise a renewal of themselves, to perfection. This will be the work of a whole season. But let us anticipate nature, so that we may be prepared for that rapid and mysterious change, which

the unassisted eye may pass over without getting an adequate glimpse of its meaning.

Last summer, perhaps before the days began to shorten and the cooler breezes to show signs of the coming autumn and winter, the plants were making provisions for their renewal this spring. In each seed, born of the parent stem, there was the germ of the future plant snugly folded up with a store of food provided to begin its new life. Each leaf and flower, soon to burst forth in beauty and luxuriance, were snugly folded up "in their case russet and rude," defiant of the rough blasts of winter, and only waiting the life-giving rays of the spring sun.

Now, to make this picture real, in the first place let the children plant seeds of the bean, or pea, or maple, and side by side with each of these a seed of oats or Indian corn. Flowerpots or little boxes filled with fine earth or clean sand, as directed in the REVIEW for April last, may be used. Every pupil should have such a garden of his own. Sheets of blotting or any porous paper may be used for germinating seeds. Be careful to keep them in a place where the temperature is even, not too hot nor too cold, and supplied with sufficient moisture, and placed as often as possible in sunny windows. After two or three days make another small plantation of a bean and an oat, and so on until several successive plantings have been made. These will illustrate the lessons we have in view for the April number of the REVIEW, showing the growth of dicotyledonous and monocotyledonous plants.

While these plantings are being made, have the pupils bring in for class work some twigs of poplar, horse-chestnut, dogwood or other trees that have large leaves which come out early in spring. The teacher should make a careful survey of the neighborhood first. Then he may accompany a few of the older scholars, directing them to bring in what is desired for the first lesson. Suppose it is a twig of the poplar tree. Begin the talk about leaves. Will the leaves of last season reappear on the trees this spring? How do you know they will not? When are the leaves formed that are soon to appear? Is there anything upon this twig that looks like a leaf? During this close examination of the twig, the layers of bark, wood and pith, may furnish subjects for investigation. When the pupils have found out that the little brown cones are the only possible places where the leaves may be hiding, the first lesson should be brought to an end, and they may be told that it is a game of hide-and-go-seek between them and the leaves. If their interest has been fully aroused they will have enough to tell you at the next lesson. How they pulled off the outer layer of the bud—the little brown

overcoat, and next the little flannel jackets and snug blankets, and what they found warmly ensconced inside.

Have the scholars bring home during the early days of April some branches of willow, put them in water, and they will be ready to illustrate what we yet have to say on buds.

[For the REVIEW.]

A Need of S. P. C. A. Work in Italy.

Two books there are that I should very much like to see translated and in the possession of everyone. These are "Chapters on Animals," by Philip Gilbert Wammerton, and "Black Beauty—the Autobiography of a Worker," by Anna Sewell. This last mentioned work has indeed been recommended by the Royal S. P. C. A.; and I notice from the volume lying before me that it has already reached its twenty-first edition—so popular has this little work become.

Its authoress, a hopeless invalid for years, never lived to see the good results of her work.

In England and America on every hand one sees the beneficial results that have accrued to all our domestic animals through the enforcement of laws made on their behalf. It was during a winter's residence in Italy that I noticed a contrast to this happy state of things. In this charming land of art and song I could not but notice how much the brute creation had to suffer; they seemed to have no redress whatever from man's cruelty. The one argument an Italian has to offer when remonstrated with is always, "We is no Christian."

Fancy, if you will, a glorious day in early spring on the shores of the Bay of Naples, in the vicinity of Sorrento, where the beauty of the scenery almost baffles description. In the midst of one's enjoyment the heart is saddened, perhaps, by the sight of a poor half-starved horse, drawing a "caleche," containing no less than fourteen people on their way to some religious "jesta"; who, in their mirth, seem all unconscious of the sufferings of the poor sore-covered animal, goaded on, probably, by some half-drunken driver; and this cruel treatment to both horses and dogs might be witnessed daily.

Speaking of the French peasantry Wammerton says: "I have seen a great deal of the life of the French peasantry, but never to this day have I seen a peasant caress his dog otherwise than with a stick or a wooden shoe. There are countries"—he goes on to say—"where the dogs are never fed, where they are left to pick up the vilest refuse, and where they walk like gaunt images of famine, living skeletons, gnawing dry sticks in the wintry moonlight, doing

nature's scavenger work like rats. Yet in every one of these miserable creatures beats the noble canine heart: that heart whose depths of devotion have never yet been sounded to the bottom; that heart which forgets all our cruelty, but not the smallest evidence of our kindness."

But, after all, one cannot wonder very much at the treatment which the lower animals receive in Italy, when even the women are obliged to work like beasts of burden. It is a common sight to see the women toiling up the mountain sides underneath heavy bundles of poles, and huge baskets of manure, which would almost prove too much for an ordinary Canadian laborer. Of course there are liberal-minded Italians who deeply deplore this state of things, and yet at present see no direct road out of it.

One can only hope and trust that the closing years of the nineteenth century may see not only an Italian S. P. C. A. started, but also a Ladies' Auxiliary.

A. W.

[For the REVIEW.]

SCHOOL SAVINGS BANKS.

The Dartmouth School Savings Banks were established in December, 1887, under authority of the Town Council. The first bank was opened on December 5th, 1887.

The following is the treasurer's statement:

Total amount deposited from Dec. 5th, 1887, to	
Dec. 3rd, 1888,	\$1,407 36
Interest on general account to June 30th, 1888, ..	2 94
	<hr/>
	\$1,410 30
	<hr/>
Amount transferred to individual accounts of pupils in Post-Office Savings Banks, .. .	\$1,003 00
Amount withdrawn by depositors, from School Banks, .. .	90 68
In Bank on deposit, .. .	316 62
	<hr/>
	\$1,410 30
	<hr/>

The depositors number about 200, and the transactions several thousand.

All this work has been voluntarily done by the teachers outside of school hours. In fact it would have been impossible to have made them the success they are if the teachers had not displayed the best spirit and given them every attention. Everything is due to their energy and careful attention. The work being entirely new required considerable time at their hands, which was cheerfully given.

The great number of depositors shows that the amount deposited to credit of individuals, is, on the

average, small; this, however, is a good omen, showing, as it does, that the money deposited is in general saved by the children, and not merely money placed to their credit by indulgent parents, who have given them the money for that purpose.

The bank accounts are regularly audited and the interests of the pupils fully protected. As a first step in industrial education it is important, as pupils are encouraged to earn money regularly, and not to depend entirely for funds on their parents.

The arguments in favor of such institutions, especially in cities and large towns, are convincing and conclusive.

An extract from *Harper's Bazar*, reprinted in the Report of the Commissioners of Education, Washington, says, in speaking of their adoption—"They have added to the curriculum a continual object lesson in thrift, industry and self-denial—a practical lesson, which without pushing any theoretical instruction out of its way, can do more to undermine the dangerous communistic spirit of the age than any amount of mere book learning." The commissioner, in his remarks on their adoption, calls them "valuable helps to national education."

He remarks that for two years, 1885-7, only six banks were established, but that at least one hundred would be in operation in 1888. He squarely endorses them and gives a sketch showing how they are worked and a *resume* of the work done by them in various countries in the old world. France had, in 1886, 24,000, with savings aggregating \$2,400,000; Italy, 3,456; Hungary, 700; England, only 2,000 in 1886, but now the number is at least three times as great. Last year London established a bank in every school under its control.

I have before me the 18th annual report of the Liverpool Penny Savings Banks, which states that in 1888, 180 banks were in operation, with 758,207 transactions. They have received £24,518 3s. 2d.; withdrawals, £18,971 8s. 4d.; transferred to Liverpool Savings Bank £5,402. Balance on hand £8,808 14s., due to 51,891 depositors. They have opened 1,531 accounts in the Liverpool Savings Bank, for depositors whose deposits had reached the limit, and this shows a large increase over previous year.

They have had great success in all the large cities and are now being generally adopted. This article must necessarily be too short to give many arguments for their establishment, but if the subject is of interest to any of your readers, I shall be pleased to furnish them with all desired information.

Step by step we are taking advanced ground, and with a free kindergarten in every large school, and kindergarten methods introduced into all primary

schools, we will have, with school banks, two of the greatest lessons in economy, system, industry and culture, that can be given to the young in industrial education. No educationist will deny that a well educated and industrious person has within himself the conditions that will give him a prosperous and contented life,—a life that will help to make the world better and richer. We think that these institutions will do much to bring about these conditions, and, therefore, all efforts should be made to have them established.

Yours truly,

H. S. CONGDON.

Dartmouth, N. S.

For the REVIEW.]

Music in Schools.

Music by general consent forms an important part of the course of study. Its utility in voice, culture and physical development, in improving discipline and brightening school life makes it most desirable—almost necessary in every school-room. Rote-singing partially secures a few of these advantages. As a rule, however, it is in a quality of voice to which it is not agreeable to listen. "Music implies *sweet sounds*." The musical training in our schools should improve the quality, tone and compass of the voice, make the ear sensitive to nice discriminations of sound, and increase the pupils' love of good music and their capacity for the enjoyment of it.

How can these important results be secured without taking too much time from other studies and without specially skilled teachers? This question has been completely answered in Great Britain, Paris, Toronto, New Jersey and other parts of the United States. For some time a natural prejudice caused me to favor the Staff Notation rather than the Tonic Sol-fa system, but I have been compelled to a different conclusion within the last eighteen months.

1. Some of our teachers have adopted the Tonic Sol-fa, and have produced results by it unattainable by the old system, unless by five times the labor and time, and in the case of some primary departments altogether unattainable.

2. In England, Ireland and Scotland, where the mass of the people are much more musical than in America, and where music has reached much greater perfection, the Tonic Sol-fa is almost universal.

3. It is rapidly gaining ground in America; 500 American and Canadian teachers have declared emphatically in its favor.

4. I have not heard an adverse opinion from any person acquainted with both systems, and therefore qualified to judge between them.

5. For school purposes the Tonic Sol-fa possesses this important characteristic, that special musical talent is not necessary to teach it successfully.

Mr. Anderson will give a course of fifteen lessons or more on the Tonic Sol-fa system for the special benefit of teachers. Classes will be formed and the preliminary lesson given on Monday, the 4th of February, at 4.30 in Brunswick street

school. The fee will be \$1.50 for the course. You are respectfully requested to be present. Any required explanation will be given and objections answered satisfactorily.

A. McKAY.

Halifax, 31st January, 1889.

In response to the above circular, seventy-five of the Halifax teachers took the course. Three "intermediate" certificates were granted, six "elementary" and over fifteen "junior." At the close of the course a society was formed for continued practice and instruction. The teachers and commissioners were much pleased with the system, and believe it can perform all that it promises—that it is at once the most scientific and simplest introduction to vocal music.

A. M.

The New Biology—A Review.

THE NEW BIOLOGY: OR, THE TRUE SCIENCE OF LIFE, by M. J. Barnett, author of "Practical Metaphysics," "Health for Teachers," "Justice of Healing Power." Boston, H. H. Carter and Karrick. 1888.

This volume, of some 145 pages, reflects the usual credit on the printer and the binder. We have been unable, however, to discover any biology or science in it, although the star blazes ostentatiously from within the gilded equilateral triangle on its cover. The author very prettily introduces scriptural allusions and modern conclusions into well put ethical exhortations. Many portions of the book, nearly whole chapters, are filled with gems of this kind; but the "spiritual science" is the most trashy matrix of fancy which ever enclosed a jewel of thought.

There has been an astronomical science based on the hypothesis of the earth being a stationary plane around which the heavens revolved. The hypothesis explained satisfactorily ninety-nine out of a hundred facts noticed by these crude observers. Our five-year old, we have just discovered, thinks the world comes to an end in the distant horizon, and that the edge of the world is like the sides of a great ship over which perpetual banks of cloud keep rolling. All the different countries of the world, alluded to in conversation, suggested by the newspaper or correspondence from abroad, have found with him a locus within the cloud-covered cliff, which bounds the world. His ideas appear simple and clear to him; but how a person travelling east on the surface of the world would at last be seen approaching his home from the west is very mysterious. Mr. Barnett's theory no doubt appears to him so logical that he cannot help believing it to be the true science of life. We must wait for him—as for the child—until he knows something more of the world. A scientific theory, which

explains a hundred phenomena but which is contradicted by one, is false. "Spiritual science" (so-called) appears to explain one phenomenon in the hundred we admit. "It is a science," we are told on page 141, "whose whole tendency is to refine and elevate, and it offers the only perfect freedom to all, irrespective of race, color, creed, or sex. For you to antagonize this science would appear as if you were desirous to enslave woman and encourage despotism in man."

Well, we certainly do not wish to countenance the enslaver. In a word, the "spiritual science" fantasy is an hypothesis built purely out of the imagination. He is very positive. Chapter IV. opens thus: "The material world is created by the spiritual world, and corresponds to it, as the shadow corresponds to the object that casts the shadow. Swedenborg says that the whole natural world corresponds to the spiritual world; and not only the natural world in general, but also in every particular." His proof is the authority of Swedenborg. Who could be a better authority? The man who visited heaven and hell and gave us minute descriptions of them in good faith; who saw with his own eyes the last judgment in the year 1757 or thereabouts, and while he saw King George of England in heaven he discovered the Apostle Paul in hell, must be a good authority. Here are some specimens of the theory of correspondences: Physical blindness corresponds to spiritual blindness, physical deafness corresponds to spiritual deafness." All bodily disease comes from the corresponding spiritual disease. Heal the spiritual and you heal the physical disease; and examples known to the author are given as evidence. Here is some of the biology: "We all know that the affections act on the heart, etc." "It has been noticed that the intellect acts upon the lungs." "The memory seems to be connected with digestive organs." When the mind is so inharmonious that it cannot throw off harmful or useless conditions, when it clings to its errors, the excretory organs will be found unable to perform their functions in throwing off harmful or useless material from the physical body. The organ of hope, for example, is said to preside over the liver; melancholy, which is inverted hope, causes the liver to be slothful in the performance of its duty. Caution is said to preside over the ear. This is a specimen of the true science. At the commencement of the chapter the correspondences were stated as a total, without the shadow of a doubt. But when the particulars are mentioned the author can only say, "It is said."

If he were to condescend to still further particulars known to nearly every eight grade Canadian school boy, his faith would certainly be clean swept away. But the science is based on induction.

Here is an example: "It is well known in medical practice, that those who indulge in impure thoughts—which leads to impure acts—will reflect a corresponding impurity in their bodies in some eruptive and loathsome disease. It is also known that they who indulge in inflammatory thoughts, create inflammatory diseases in their bodies." A young girl was suffering with that distressing malady called asthma How did she create it? The healer, who took charge of her case, felt sure that there must be a corresponding condition of mind back of it as a cause. She soon learned that the young girl, though living in the midst of agreeable people, even of her own age, was, nevertheless, very lonely, that her highest thoughts and best feelings were repressed. The best part of her nature was shut in and stifled, just as her lungs were stifled in breathing The healer, of course, ignored her difficulty in breathing; for it had indicated the real malady and was of no further importance. Like a true physician she urged her to open her heart and her mind, and her breathing would take care of itself." Of course she was cured!

Again, "disease does not perpetuate itself; it is kept alive by conscious or unconscious mind in dominion over it." "Old age has no existence for us, except among the falsities of our erroneous thought."

Again, and let the spectacle-wearer take heed (see page 3), "Physical blindness corresponds to spiritual blindness. Failure of physical sight corresponds to an inability to continue to see the truth. There is a universal failure to see truth as governing the reconstruction of our eyes. In youth we expect to have good sight; we fully believe it to be our right. In old age we have permitted our belief in truth to be argued away from us."

We have said that we were unable to discover any science in the book, much less *true* science. Nor have we discovered any biology, much less *new* biology. In fact it is the oldest biological system in America—the identical philosophy of the medicine men of the Red Indian. Only the method of the medicine man, with his rattles and other palpable aids to "spiritual" excitation, healed more than Mr. Barnett's method; and the Indian form of the hypothesis of spiritual correspondences was not so entirely out of joint with the common knowledge of mankind.

Education consists not quite so much in the amount of information imparted, as in the careful training and discipline of the intellectual and moral powers—such a co-ordination of the faculties as will enable the child to think and work out problems for himself in after life.

To The School Boards in the Atlantic Provinces.

A PLEA FOR THE INTRODUCTION OF THE KINDERGARTEN.

My deep interest in the cause of education leads me to make a plea in favor of the kindergarten as an integral part of our common school systems in these provinces.

In all our cities and towns the most pressing question for settlement would seem to be: How shall we reduce to the lowest possible degree the wastes and burdens of society that press upon us increasingly? Clearly, by making every individual in the community intelligent, virtuous and wealth-producing.

Does our educational system compass this end? Let the expenditure rendered necessary by crime and pauperism answer that question. How comes it that our system does not prevent this waste of humanity?

For two reasons: first, its training has been *too exclusively literary*, a defect inherited from the past which ignored *popular* education, and, as a consequence, adapted its curricula and methods to the wealthy and those preparing for professional life. Secondly, to an disregard of the fact that labor in its simplest forms is *subject to law* and needs the application of science, if it is to rise to its true dignity and cease to be mere drudgery. When we all honestly believe that earnest, skilful, joyous *work*, is the divinely appointed means for the development of human faculty and character, and act accordingly, we shall solve a good many hard problems.

Pestalozzi's great loving heart made him the *father of popular education*; his watchword, a glorious one, was, *to know*; but Fröbel, agreeing with Pestalozzi as far as he went, goes *far* beyond him, and gives us his rallying cry, *education by work*.

Taking the hint from nature, which has made the child full of curiosity, eager for knowledge and perpetually active, he demands education from the earliest period; education of every faculty in every possible direction; education of the individual, not only as a unit, but as a member of society, which he is to enrich, strengthen and adorn. He has not only given us a clear and distinct aim, *harmonious development*, but he has systematized the means of attaining it, and shown us how we may press science into the service of child-culture during that early period that has, hitherto, been largely left to chance and instinct.

Fröbel would have the mother instructed in her duty, so that she may be competent to prepare her child to enter the kindergarten when three years old. At this age, the social instincts need a larger sphere for their gratification than the family affords, and, under wise culture, they become a powerful aid in his education. At present, the necessity of the kinder-

garten proper has not become apparent to our people; they need educating up to it.

The most effectual way to create a demand for it would seem to be by the introduction of its methods and principles, and, above all, its genial spirit, into our primary schools, which certainly stand in need of training and instruction more in accordance with child-nature. The *heuristic* method (finding out) of gaining knowledge and faculty, which is carried on by handling objects and submitting them to the careful observation of the senses, is applied in every possible way by Fröbel with inexhaustible ingenuity. Color, form (of the ball), motion, direction and position, are learned by the six colored balls of the first gift. The ball-games played in groups conduce to dexterity and precision of aim.

The second gift shows the three fundamental forms, ball, cube and cylinder, together with the *apparent* changes in form of the two latter under certain conditions. The boxes of the next four gifts, consisting of cubes and bricks, two boxes of each form, *whole*, and two *divided*, develop constructiveness and orderly arrangement in building. They are also made the medium of lessons in number and geometric form. The square and triangular tablets, sticks, seeds or Mrs. Hailmann's lentil dots, with the occupation of perforating paper with a small needle, lead logically from the solid bodies to surfaces, lines and the point, and afford a firm basis, further on, for mathematical abstractions.

In paper-cutting and pasting, paper-twining and paper-folding, mat-weaving, modelling in clay and drawing, the child learns to be neat and deft-handed. He also forms the habit of laying out and planning his handiwork skilfully from the very first step in the process. The kindergarten aims at free inventiveness, not mere imitation. It succeeds, too, for the productions of even very young children often surprise experienced kindergartners by their beauty and originality.

The power of the hand as the tool of the creative instinct is constantly increasing, by the daily practice of movements common alike to the artist and artisan. Go into any good kindergarten and look carefully at the hands that have had training, you cannot fail to note the firm, yet delicate touch, and facile movements. Economy is taught. "*Nothing*," says Fröbel, must be destroyed," so in paper-cutting, the children clip carefully to the line so that they may exchange and mount on paper what would be wasted, and by judiciously combining the colors produce very pleasing ornamental forms.

A child, thus trained, will pick up and turn to account what another would pass by unheeded. The

round games, often dramatic representations of trades and occupations, are such a means of enjoyment, by their rhythmic movement, accompanied by singing, that they invest labor with a halo of sentiment that will not altogether fade, when, instead of pretty mimicry, these children take up *real* work.

A good kindergarten develops and strengthens virtue by its freedom, which fosters spontaneity of expression, amidst favorable surroundings and well-adjusted conditions.

The kindergarten is a world in miniature, where the child learns to take his own weight and become conscious of his own powers. He learns, too, how and when to give up, and when and how to carry his point. If he be a born leader, he learns how to govern, in the kindly atmosphere, without domineering. He learns, too, how to obey cheerfully and without servility, not because he *must*, but because it is *right*; because he finds order delightful and the reverence for law springs up naturally. The noble work done in the free kindergartens of San Francisco and Chicago bears emphatic testimony to their harmonizing effect on the wretched homes from which so many of the children come, and to which they carry back a gospel of cleanliness, kindly feeling and love of work from day to day. If these Atlantic Provinces are to hold their own in productive industry, a kindergarten department should be attached to every graded school as the solid and only foundation of manual training. But the objection is often made that the kindergarten is too expensive; but St. Louis, the first to engraft it on the public school system, has not found it burdensome, and in the report of that city it simply takes its place among the other departments as a matter of course. But the establishment of one good kindergarten, under a director competent to *train* the teachers, would soon repay its cost many times over, in the increased efficiency of those teachers who intelligently studied and applied its principles.

It is with no small pride that I am able to tell you that Dartmouth is to open May 1st a kindergarten department, under a trained director, in our largest graded school. There is a good deal, in some of our primary schools, borrowed from Fröbel's system, and it is not without value, but there is a danger of mere formal imitation where there is no opportunity of gaining fresh inspiration by an occasional visit to a *real* kindergarten. Without an accurate standard of measurement it is easy to degenerate. I sincerely trust that the school boards of our cities and towns will make an energetic movement towards sound kindergarten training in connection with their schools. Anything I can do to further this work shall be done with hearty good-will. There is wealth and intelligence and public spirit enough, if they can only be focused, to make the introduction of kindergarten-culture a splendid success.

I remain, your obedient servant,

CATH. M. CONDON.

Dartmouth, February 28th, 1889.

THE importance of establishing a practical system of technical education is now generally recognized in Great Britain; and the Imperial government, in deference to public opinion, has decided to introduce, next session, a Technical Education bill. No explanation has been given as to the scope of the promised measure, but it is generally believed that the government will make a very liberal proposition. The subject is one which has for a long time been treated with neglect, but the increased attention which of late years has been paid to educational matters both in England and the United States has led to a through discussion of the necessity of providing technical instruction in the schools of the country, and there is little doubt that the Imperial Parliament will support the government in any reasonable proposal.

THE American system of education has again been made the subject of attack. In an article in the *Forum*, Professor H. H. Boyessen states, that after an inspection of the schools of France and Germany, he has come to the conclusion that the American schools are lamentably inferior and far from being up to the requirements of the age. One objection he makes to the United States schools, is that the training in them kindles an ambition, which, in nine cases out of ten, is disappointed, and results in discontent and a state of unrest in society. He advocates that the pupils of the schools should be taught the lesson of the dignity of labor, and that they should receive practical training in technical work. Girls, he thinks, should be taught the principles of household management and economy and sanitary science. The professor has reached conclusions which other educationists have arrived at before him.

Yes—our teachers are young. Well is it in one sense, that it is so. This nation could not stand the injustice involved in the present starving wages paid our teachers—if they were older.

How much we demand of our teachers for the mere pittance we pay them.

The teacher must have infinite patience for details—knowledge of men as well as of children—foresight into the future so he can link it to present study and duty—fertility of expedients—affability of manners—energy of will—the instinct and ability to command—the confidence of the community, and a universal ability that, in other positions, would command an adequate salary for present needs and for future wants.

Do we do our teachers justice in the way of compensation?—*American Journal of Education*.

IN a school district in London there were many parents who reported no children in their families. In order to find just how many children were thus being kept from school, the school authorities got two monkeys, dressed them gaily, put them in a wagon in which was a brass band, and started through the district. At once crowds of children appeared and followed the wagon, which drove to a neighboring park, when the school officers went among the children distributing candies and getting their names and addresses. They thus found that over sixty parents kept their children from school; and as a result of the monkeys, the brass band and the candy, about 200 little boys and girls have been set at study.—*Exchange*.

THE little speck known as Sable Island, east of Nova Scotia, bids fair to meet the fate of the fabled Atlantis. On every side the winds and waves are eating it away, and the process of demolition is going on so rapidly as to make it one of the marvels of the Northern Atlantic. Two lighthouses have been destroyed, and another, some distance inland, was erected last summer to take their place. Every year shows a considerable decrease in the island's area, and the modification the debris is making in the adjacent ocean bottom render the soundings marked on the chart of that region very unreliable. All that is left of the island seems to be strewn over the ocean bed, and the fate of Sable Island will serve in school geographies as a notable instance of the destructive powers of the waves.

It is rumored the Nova Scotia government intend introducing a bill by which they will spend \$8,200 a year in bursaries and fellowships to students in county academies. Eight bursaries of \$200 each are to be offered each year for about four years, and one fellowship of \$600 each year for three years. The limit is to be 32 bursaries and three fellowships. The bursaries winners are to enter any Nova Scotia college or Mount Allison in New Brunswick, and holders of fellowships may study abroad for three years. Last year the provincial government reduced the grants to school teachers by about \$5,000, so that this aid to higher education, if adopted, will be practically at the expense of the poor teachers.

PERSONAL NOTES.—Mr. G. H. Harrison, A. B. (Mt. Allison), has been appointed head-master of the Chatham, N. B., Grammar School.

WE regret to learn that Mr. T. A. Hartt, teacher of the Grammar School, St. Andrews, has been compelled, owing to failing health, to give notice to the trustees of his resignation.

AMONG THE ACADEMIES.

Secretary Wilson, of the Halifax School Commissioners, reported at the last meeting of the board that he went to Springhill to obtain a collection of fossils, which were to be obtained there for the Halifax Academy. He was introduced to underground Manager Henry Swift, and from him obtained a beautiful collection, consisting of about sixty specimens. The collection was on view on the table, at the meeting, and comprises particularly good specimens of neuropteris and other ferns. Also, clamaites, sigillariae, stigmara, lepidodendra, sphenophylla, asterophyllites, cordaites and various other grasses, and a transverse section of a tree, lepidodendron, two feet in diameter.

We have received the "Programa para 1889 (Calendar for 1889) of the "Institute Internacional," Santiago, Chili. It is a large sized, closely printed pamphlet of about forty pages. It has a very fine frontispiece photo-engraving of the staff of eight professors. Their names are given on the opposite page, as follows, under the heading, "Cuerpo de Profesores": Sr. Gmo. Sluyter, de la Universidad de Halle, Alemania; Dr. Frederico Schneider, de la Universidad de Halle, Alemania; Dr. Alberto Meyer, da la Universidad de Marburg, Alemania; Sr. Don Antoni Diaz, da la Universidad de Madrid, Espana; Sr. Don Archibald Troop, Academia Pictou, Nova Scotia; Sr. Don Enrique Fahienbuhler, Ecole Normal, Neuchatel, Suiza; Sr. Don S. J. Christen, Director. Sr. Don Archibald Troop is a native of Bridgetown, Annapolis County, Nova Scotia.

The town of Truro, N. S., is about to proceed with the erection of a new academy. The building will contain four class-rooms with assembly hall, laboratory, museum, gymnasium and other necessary equipments. Last year they added a third teacher to their regular academy staff, as well as a teacher of music and elocution.

A strong appeal is made on behalf of the Ladies College at Halifax. Educationally and financially it has been most successful, but increased accommodation is needed, and to secure this the sum of \$18,000 is required for a new building, the erection of which should be commenced without delay. The Rev. Robt. Laing has issued a circular appealing to the Presbyterians of the Atlantic provinces for subscriptions in aid of the undertaking.

We do not always get what we reach out for; but something falls to us by the effort we make that works for our want and gives us strength.

QUESTION DEPARTMENT.

Questions and Answers.

SUBSCRIBER, Shelburne Co., N. S.—1. Can I obtain nine numbers of the EDUCATIONAL REVIEW, viz.: Numbers two to ten inclusive, of Volume I., and at what cost? I am anxious to have your valuable paper from the beginning.

2. How and at what time did Great Britain get possession of Bermuda?

3. What is the correct pronunciation of "scieuf"?

ANS.—1. We regret that we have not a single copy of the REVIEW for August, 1887, and for March and April, 1888, and only three copies each of November, 1887, and January and February, 1888. We will allow a year's subscription to any subscriber sending us these six numbers.

2. The Bermudas—the "still vexed Bermoothes" referred to in Shakespeare's "Tempest"—said to consist of 365 small islands, were first settled by the English under a charter from James I., and a regular government was established there in 1640. So the English came into possession by priority of settlement and have retained the islands ever since.

3. Like the word "seen."

LITERARY NOTES.

PROF. JOSIAH P. COOKE, of Harvard, will contribute to *The Popular Science Monthly* for April an article on "The Chemical Elements," telling the story of the changing beliefs about what substances are made of, from the time when earth, water, air, and fire were thought to be the elements of all things, down to the present day, with its list of over seventy simple substances, and when the idea is gaining ground that perhaps there is only one kind of matter after all.

D. C. Heath & Co., will publish this week, in their series of *Guides for Science Teaching*, Hints for Teachers of Physiology, by Dr. Henry P. Bowditch, of the Harvard Medical School. It will show how a teacher may supplement his text-book instruction by simple observations and by experiments on living bodies or on organic material.

BOOK REVIEWS.

THE FIRST THREE YEARS OF CHILDHOOD, by Bernard Perez, edited and translated by Alice M. Christie, with an introduction by James Sully, M. A., author of "Teachers' Handbook of Psychology," etc. (New York and Chicago: E. L. Kellogg & Co., 1888. \$1.25).

This is a neat volume of some 300 pages, presenting the usual typographical excellence of the work of the publishers. The subject is one of surpassing interest; not only to the parent but to those brought up in the family with younger children. It reveals a world of order in the curious and purposeless incidents of child-life; it makes the brick and rubble of commonplace experience burst into the refulgence of sunlit masses of crystallized law. The intelligent mother, the father, the kindergartner, the primary teacher—in fact

everyone who has been a child, should not only be able to peruse the work with profit, but with delight. The light thrown upon this interesting stage of human life by the treatise before us, should very materially help the evolution of higher types of manhood and womanhood more in the future than in the past.

THE TEACHER'S PSYCHOLOGY. A treatise on the intellectual faculties, the order of their growth, and the corresponding series of studies by which they are educated; by A. S. Welch, LL. D., Professor of Psychology, Iowa College of Agriculture and Mechanic Arts, Ames, Iowa. (New York and Chicago: E. L. Kellogg & Co., 1889. \$1.50).

This is a handsome volume of nearly 300 pages. While we feel disposed to question the manner in which some parts of this important subject is presented, we can emphatically say that it presents the subject in a most concise and practical manner. We know of no work on the subject which can be read and mastered by the self-taught student with less effort; and which, at the same time, gives so well analysed a scheme of the whole with the bearings of the science on human work, and especially on the work of education. It is a splendid compendium of theoretical and practical psychology for the teacher and the general reader.

STORY CARDS FOR PRIMARY CLASSES. Twenty lessons in reading and twenty lessons in spelling. Supplementary to any primer. By Laura F. Armitage. Boston: Eastern Educational Bureau, 50 Bromfield street. Price 25 cents by mail.

These elegant story cards are 5x8 inches, printed on both sides, each having a pretty picture and a story about it on one side, and ten words for spelling, in "print" and "script" type, with the figures on the other. They are on colored bristol board, the cards being yellow, blue and pink. The color of the card is stated, as "This color is yellow," "This color is blue," etc. Every primary teacher will find these cards of great service in teaching the little ones the art of reading. They will largely increase the interest of the pupils in their lessons.

ALLEN AND GREENOUGH'S LATIN GRAMMAR—the new edition—is highly spoken of. Some of the best classical authorities think it superior to those generally in use, and favor its adoption.

We have received the circular of **PHYSICAL CULTURE**, for home and school, scientific and practical, by D. L. Dowd, Professor of physical and vocal culture, 16 East Fourteenth street, and Miss Brown's school for girls, 713 and 715 Fifth Avenue, New York.

TEACHERS' MANUAL No. II.; THE ARGUMENT FOR MANUAL TRAINING, by Nicholas Murray Butler. E. S. Kellogg & Co., New York and Chicago. This little pamphlet presents, in a few pages, the theory and history of manual training, with an appendix containing a practical plan of manual training, which may be adapted to the ordinary school.

THE TREE OF MYTHOLOGY: A study, by Chas. deB. Mills, Syracuse, N. Y.; C. W. Bordeen, publisher. This is an exceedingly instructive book, dealing with the origin of heroic legends, mythical heroes, folk-lore, etc. It seeks to ascertain something of the origin, nature and growth of a myth, what it primarily was and what has come of it. To the student of historical literature, especially, it is almost invaluable.

BOOKS RECEIVED.

From D. C. Heath: The following French and German classics (with notes and vocabularies) Lamartine's *Jeanne d'Arc*; Souvestre's *Confessions d'un Ouvrier*; and Schiller's *Jungfrau von Orleans*. From C. W. Bardeen: *Cyclopædia of Education*; *Orthepy Made Easy*, a royal road to correct pronunciation. From Eastern Educational Bureau, Boston: *Elementary Chemical Technics*. From MacMillan & Co., London: Virgil's *Aeneid*, Book II, of the *Elementary Classics Series*.

EXCHANGES.

George Kennan's article in *The Century* for March is more than usually interesting. "The English language in America" is an interesting article for students. . . . Prof. Goodale's articles on the principles of botany are continued in *Forest and Garden*. The excellent features of this journal are its many useful articles on horticulture and forestry. Published by D. A. Munro, New York. . . . *St. Nicholas* for March is a superbly illustrated number. . . . *The Popular Science Monthly* for March has three articles of great interest to teachers, "The Chemistry of To-day," "Natural Science in Elementary Schools," and "The Aryans in Science and History." . . . *The Dominion Illustrated* contains a full page engraving of the Dalhousie College Foot-Ball team (15) from a photograph of Notman's. The team is nearly altogether made up of old Pictonians. . . . In the N. B. *University Monthly*, for February, is a well considered article on the importance of professors of our universities appearing on public platforms and in the high schools of the province as often as possible. . . . *Gripsack*, (published by Knowles and Reynolds, St. John), for March, has just been issued. It is an excellent number, full of interesting facts and fancies for those who stay at home as well as for those who travel. The publishers deserve a cordial support from the public.

VACATION.

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THE NEXT SESSION will open **THURSDAY, September 27th.** Matriculation Examination will be held on **WEDNESDAY, the 26th.** Applications for entrance or for information respecting courses of study may be made to the President.

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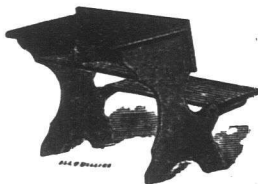
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