

**PAGES**

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# The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

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A. H. MacKAY, B. A., B. Sc.,  
Editor for Nova Scotia.

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

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(Please mention this paper.)

## THE EDUCATIONAL REVIEW.

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G. U. HAY, St. John, . . . . . Managing Editor  
W. T. KENNEDY, Halifax, . . . . . Business Editor for N. S. and Newfoundland  
G. U. HAY, . . . . . Business Editor for N. B. and P. E. Island

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## EDITORIAL NOTES.

THE REVIEW for August is somewhat late in making its appearance. Our readers will kindly excuse the delay. The editors, like others who go out to enjoy a vacation, found the flight of time marvellously rapid, and before they were aware of it publication day had arrived. The glimpses of shore and meadow and mountain, of charming sunsets, of placid waters reflecting cloud and foliage, shut out all other visions of this work-a-day world. We hope that one and all of our readers have enjoyed a pleasant vacation, and that they are returning to their duties invigorated for another year's earnest work.

THE National Educational Association will probably hold its next meeting at Saratoga. The Dominion Association will hold its first meeting in Montreal in 1892. The time will, no doubt, be arranged so that those who wish to do so may attend both meetings. Montreal and Saratoga are within easy reach of each other and between the romantic Adirondacks and Lakes Champlain and George with their historic associations.

THE Albert County, N. B., Teachers' Institute will meet at Alma on Thursday and Friday, Sept. 10th and 11th. Chief Superintendent Inch will be present and address a public educational meeting on Thursday evening. There will be papers and discussions on the following subjects: "English Literature," "How to awaken an Interest in Study," "History as it should be taught," "Patriotism and the necessity of giving it more attention in the schools." On Friday morning there will be a geological excursion to the beaches in the vicinity.

LET every teacher have some object in view for the benefit of the pupils and school. It will do good by bringing the teacher more in contact with the parents, and will show that he is interested beyond his salary. Let a start be made toward a school library, a school flag, or improved school apparatus, or grounds. The very effort will be beneficial.

SIX new departments in the St. John city schools were opened this month on the re-assembling after vacation. Even with this additional accommodation all the departments are full, and the large attendance gives promise of greater educational results for the city during the current year than any previous year of its history.

In France and other countries of Europe school savings banks have been in successful operation for some years, and it is claimed that their influence is excellent in inducing habits of thrift and economy among children. Recently in several of the United States, especially Pennsylvania, they have been established. The vice-president of the School Savings Association, Mrs. Oberholzen, of Norristown, Pa., at a meeting of the Board of School Trustees and principals of schools, St. John, explained the system, and warmly recommended its adoption here. The only place, we believe, in the Atlantic Provinces where a school savings bank has been established is at Dartmouth, N. S. Will any of our correspondents in that city favor the REVIEW with an account of the success that has attended the undertaking?

AMONG those from New Brunswick who visited the educational convention at Toronto were Inspectors Smith and Bridges, Messrs. March, Hayes, Montgomery, McLean, Cox, Foster, Inch and Irons; and the Misses Mowatt, McBeath, Annie M. Hea, E. Eva Yerxa and Lizzie G. Corbett. Inspectors Bridges and Smith visited Ottawa on the way.

A NEW BRUNSWICK correspondent asks: "Where is there another country in the civilized world where the school vacation ends on the first of August?"

AMONG the school exhibits at the National Educational Association at Toronto was one from the Victoria school, St. John, which served to illustrate what is being done in manual training in girls' schools under the New Brunswick common school system. In the Victoria there are all grades from the Kindergarten to grade eleven of the high school. Accompanying the work was a paper prepared by Miss Narraway and Miss Bartlett on manual training in female education. A part of the work that attracted much attention was a relief map in plaster of the city of St. John and vicinity.

MR. W. F. GANONG, of Cambridge, Mass., accompanied by Mrs. Ganong, is making a trip up the St. John river, with a view of studying more closely places of historic interest on the Jemseg, Grand Lake and other points.

THE circumstances of the death of Miss Margaret Morrow, daughter of Mr. R. A. H. Morrow, St. John, are peculiarly sad. After an exceptionally brilliant course at the high school and normal school, she was called away at the age of 20, just as her life-work as a teacher was about to begin. Her many excellent qualities of mind and heart had endeared her to all who knew her, and the parents have the deepest sympathy of many friends in their sad bereavement.

IF the summer vacation in Nova Scotia and New Brunswick occurred at the same time it would allow a larger number of teachers to attend the Summer School of Science. Cannot this be arranged?

How many teachers are justified in the complaint this year that pupils have been promoted who did not reach the required standing at grading.

CAN anyone give any good reason why city schools have six weeks vacation and country schools only four?

It will soon be time for Institutes in many of the counties in New Brunswick. Each teacher should consider it a duty he owes not only to himself, but to his pupils that he should be present. Many Boards of Trustees are becoming impressed with the idea that the most progressive teachers are the ones who attend these Institutes. There are a few, however, less enlightened ones who begrudge the time so taken, and even attempt to deduct pay for it. This cannot be done legally if the board is duly notified. A few teachers do not attend, having an eye to the expense only, and do not regard it as a matter of duty. It is scarcely necessary to remark that these are the least successful and progressive. Our County Institutes are the best and most practical educational meetings that we have, and we hope every teacher will strive to attend them.

Do teachers in our miscellaneous schools observe any fixed time for grading their pupils, or do they grade at any time that it seems most convenient and expedient? In many cases it is believed that grading takes place at any time. Teachers who do not remain but a term or two in the district, do not consider the trouble this plan will entail on their successors. It confuses the whole order of the succession of grades and prevents any system in grading. In country districts, where the attendance is often very irregular, grading may be necessary perhaps twice a year, but let it be done at the end of each term; or if there is to be a change of teachers, at the beginning of the term, so that there be no chance for fault-finding on the part the new teacher.

WE have to thank D. Wilson, Esq., Inspector of Victoria, B. C., for a copy of Vol. I., No. 1, of the proceedings of the Natural History Society of British Columbia. The chief papers published deal with the birds and economic fishes of that Province.

REV. JAMES ANDERSON, although not at present engaged by the Provincial educational authorities, is still at work in pushing forward the Tonic Sol-fa reform when the occasion offers. His pupils are now commencing to multiply his original efforts. Miss Ryan, of Halifax, met with much success as instructor in this department in the summer school at Antigonish; and Miss Travis, we are informed, has been equally successful in Inspector Lay's summer institutes in Cumberland County.

AT this year's closing of the Nova Scotia Normal School Principal Calkin stated that by the year after next he hoped to see the students doing professional work only, having passed the tests of attainment in scholarship on entering. We are glad to see something definite as the time when competent scholars shall cease to be worried through their normal school course by deadening repetitions and harassing examinations on subjects in which the advanced schools should now be competent to send out pupils. One hundred and one student teachers were in attendance at the school last year, of whom seventeen received first-class and thirty-one second-class diplomas.

INSTITUTES IN CUMBERLAND AND COLCHESTER COUNTIES. — Since our last notice of the institutes held by Inspector Lay, we find the following have been held: Spencer's Island, class of ten; Parrsboro, class of forty; Tatamagouche, forty; Balmoral Mills, twenty. Public meetings have been held at the last two in which the public were stimulated in educational progress. Tonic Sol-fa was successfully taught at Parrsboro by Miss Travis, of Amherst Academy, and at Tatamagouche by A. D. Ross, of the same institution. The various nature lessons were carried to such a point that all teachers attending them could take up the subjects in their own schools. In every locality the teachers attending were entertained freely and generously by the citizens in the immediate neighborhood. We shall be interested in watching further development of Inspector Lay's work and its future effects on the generation within his inspectorate. There may be a shifting of laurels "ere thirty years pass o'er."

The Quebec *Daily Telegraph* of July 29 makes the following remarks with respect to the appointment of Mr. Crocket to the classical chair in Morrin College:

"The Governors of Morrin College have taken energetic and timely action in filling the place of their late distinguished professor of classics. By a fortunate chance the services of Mr. Crocket, lately Chief Superintendent of Education of New Brunswick, were found to be available, and the college authorities promptly secured him for the classical chair next session. Mr. Crocket, we find, is examiner in classics for the New Brunswick University; and in THE EDUCATIONAL REVIEW for the Atlantic Provinces, Professor McCurdy describes him as a classical scholar of 'unsurpassed taste and accuracy.'"

THE semi-annual conference of the Chief Superintendent and the Inspectors took place in Fredericton on July 28th. Dr. Inch entertained the Inspectors at a dinner at the Queen Hotel. All the Inspectors were present except Mr. Wetmore, who, though improving, is yet unable to undertake active work. We understand that all the Inspectors formed a very favorable impression of their new chief.

WE have to apologize to correspondents for not answering communications and questions during the past month. They will be attended to next issue.

#### THE SUMMER SCHOOL.

The recent session of the summer school at Antigonish was one of great interest, although the attendance was smaller than usual. The enthusiasm which has characterized other meetings of the school has not abated in the slightest degree. The union of the provinces in educational work of this kind has been productive of excellent results already. Teachers return to their work from these meetings refreshed in mind and body. Much excellent work is accomplished, but it is accomplished in a way that brings an increase of energy rather than a decrease. The genial enthusiasm that prevails everywhere — in the temporary home, the class-room, or the field — makes it a recreation to all who attend of the most delightful kind. Teachers at these gatherings feel that no provincial lines separate them. Everything that is broad and excellent and worthy of imitation stands out clear and well-defined. Everything that is narrow and exclusive is out of sight.

Next year the school moves westward and meets in St. John, and a large attendance is confidently looked for. The many features of interest in and about the city make it admirably adapted for the purpose of a summer school, and its invigorating air is a tonic that brightens one up wonderfully. The trip to Frederic-

ton, with a view of the noble river St. John, and an excursion down the Bay with shorter trips in the vicinity of the city will be planned and, no doubt, successfully carried out.

The Board of School Trustees and members of the N. B. Natural History Society have extended a cordial invitation to the summer school to make use of their rooms and appliances, which are both abundant and convenient. The citizens too, when the time arrives, will extend a cordial and hospitable welcome.

The executive committee and faculty has this year been strengthened by the addition of several gentlemen, whose counsel and assistance will be invaluable in directing the affairs of the school. The introduction of more professional and literary subjects into the course will tend to make the school more popular than ever.

#### THE N. S. SUPERINTENDENT OF EDUCATION.

It is with great regret we learn of the resignation of Superintendent David Allison, LL. D., to again accept the presidency of Mount Allison, at the end of the present term, October 31st. During his regime education made steady progress, without the unrest which generally marks reform in the body of the profession itself, or in the government outside. He ruled with a steady hand, deferential yet firm, freely open to suggestion, but always conservative in action. While we mourn his loss as the head of our provincial educational system, we rejoice to have a man of his broadness of view, learning, and force of character at the head of one of our most important denominational educational institutions, as we know no other possible person, can so well advance the interests of the denomination, and at the same time the interests of the undivided general public in matters educational. A man who is simply denominational is but half a man, or some other proper fraction of the perfect unity. In the president-elect of Mount Allison we see a whole, round man, to whom all denominations may, and have now a kind of right to look.

#### THE SUPERINTENDENCY OF NOVA SCOTIA.

The government of Nova Scotia, in its appointment of a new Superintendent of Education will see, it may be assumed, that he is one who will have the confidence of the educationists of our own province, and command respect in the other provinces. And as education is one of the most important matters with which a provincial government has to deal, the country will certainly expect the position to be as remunerative as the head of one of the more important departments, and not inferior from any point of view to the presidency of one of our numerous

colleges. The head of the provincial system of education, every intelligent person must admit, should look like the head, and, of course, should be the head.

A contemporary suggests the occasion as opportune for making education a government department. To this we would reply, that the placid course of events under the present superintendent does not press any one to such a conclusion, unless the storm of political intrigue and strife in educational matters has attractions superior to the placidity of our past educational development. The experience of Ontario is not reassuring, we think. True, the government would be more directly held responsible for the administration of education, and the opposition might have no objection therefore to the change. But the spectacle of selecting a minister of education on account of his ability to stump a county, would be neither edifying to the school children, mollifying to partizan teachers and trustees, nor specially stimulating to the development of non-polemical literature, science, and art. Would more be gained or lost by the proposed change? We shall not trouble our readers by attempting to strike a balance until the question appears to arouse some public attention.

#### A SUGGESTION.

In another column a correspondent very properly draws attention to the multiplicity of studies pursued at the N. B. Normal School, and the worry and confusion that results to the student teachers from useless examinations. Mr. Vroom has been a student teacher, and is now one of the board of examiners for teachers' license. He is in a position, therefore, to discuss the question intelligently, and our readers will admit that he does so with some force.

It is clearly an advantage to the student teacher to make the entrance examination final in such subjects as history, geography, English composition, arithmetic and perhaps some others. This would leave him free to pursue with great advantage to himself the professional subjects of the normal school course, with music, reading, drawing, natural science, which subjects are not so efficiently taught in the schools of the province. The normal school instructors would thus be relieved from the drudgery of doing work that ought to be well done in the common schools. If it is not well done it is evident that there would speedily be a stimulus to improvement. If the candidates for teachers showed a competent knowledge of the subjects before named on their entrance to the normal school, it would quickly raise the standing of the schools which graduated them, and others less fortunate ought not to be slow to profit by the example.

We hope that attention will be given to the matter immediately, as our correspondent suggests. It is certainly a waste of time to keep student teachers at work cramming a mass of facts in history and geography, and keeping them perpetually on the rack for the final examination, instead of giving them abundant opportunity to study the best methods of teaching these subjects to future classes. We believe many teachers are graduated from the normal school, often with a high grade of license, with no definite plan how to manage a school or properly instruct a class. This is, perhaps, not their fault. It is certainly not the fault of the instructors of the normal school, who are earnest and well-qualified teachers. But it is the fault of a system that keeps students in a constant ferment on their standing in subjects that ought to be disposed of finally on their entrance examination.

#### ADVERTISING FOR TEACHERS.

This is the season for advertising for teachers, and, in a few cases, for schools. It is somewhat significant that neither the best teachers nor the best schools often advertise. It has to be done in both cases under certain circumstances, such as a scarcity of teachers, but is not usually done on that account. We would advise teachers to beware of such advertisements, especially if they contain the words, "State salary," as that means putting the school up for the lowest tender. It is not the qualifications of the teacher that will be considered but the salary to be given, and in such districts there is always dissatisfaction and a constant change of teachers.

In the applications for both teachers and schools there is much discourtesy on both sides. Teachers after obtaining a situation do not consider it necessary to answer correspondence further, even though they may have invited it themselves; and if the position of things were reversed, would consider that they were being badly treated. Many secretaries are even more discourteous in this respect than the teachers referred to, and never take any notice of applications save to fill the vacancy. There should be enough courtesy on both sides to answer promptly all correspondents. Again, teachers will apply to Inspectors for a school, and they expect an immediate answer when it may be not at all possible to give one. In no case after having applied to an Inspector should a teacher fail to notify him of his or her acceptance of a position, as he may be depending upon such applicant to fill some vacancy. It is a good rule for any one when writing on his own private business to enclose a stamp for a reply.

#### EXAMINATIONS.

It is announced that Dalhousie College is about to hold examinations for matriculation in various parts of New Brunswick. This is already done by the Provincial University and McGill. It will be next in order for Mt. Allison and Acadia to hold their examinations here at the same time. Too many such examinations are wearisome, and so many different standards are confusing. We would call the attention of our educational authorities to the necessity either of inducing these different colleges to accept our standard of matriculation; that is, that of the University, or if that be not entirely satisfactory, to so alter its requirements as to make them harmonize with those of other colleges. Some arrangement, we believe, could be readily made which would simplify matters very much, and be of great advantage to all concerned.

#### EXHIBITIONS.

The teachers, we think, will congratulate themselves that, at the exhibition to be held in St. John this year, the public schools will take no part. Once in five years, at least, is often enough for a display of this kind. There can be no doubt but that by far the most attractive feature in the exhibition last year was the educational exhibit. There was no compulsion put upon any of the schools to take part, but the work sent was fairly representative, and showed at least what our schools are capable of doing. All this was done at a considerable sacrifice on the part of our teachers, and caused no little disturbance in the work of the school year. This result was so apparent to many of our schools that they either took no part at all or only to a limited extent, and many of them received undeserved censure because they did not take a more prominent place or receive more honorable mention. If these school exhibits are held too frequently we will never have a general representation of schools competing. When the next exhibit comes off it is to be hoped that great care will be exercised that well qualified judges be selected. Doctors, lawyers, clergymen and college professors no doubt do the best they can, and their awards may suit the average exhibition committee, but when it comes to judge common school work, they are not in sympathy with it, and, therefore, unsuited to pass judgment on its merits. In saying this we do not intend to censure judges in the past, for they have done much hard work gratuitously, in this respect also differing from judges in other departments in the same way as the schools differ from other exhibitors in the matter of awards. We are simply making a suggestion for the future.

For the REVIEW.]

**Education in Newfoundland.**

Education in Newfoundland has never undergone such a sifting as it has during the present session of the legislature. The public generally are awakened to the fact that the ancient system of education in this country cannot be brought to a level with the requirements of modern times. The present rising generation have attained to such proficiency that an innovation is sadly required in order to meet the demands of the present day; such being the case the government has been strenuously working for the improvement of education.

The press as well has taken an active part in proclaiming its claims. Individuals have been aroused and have, with the public, cast their opinion in favor of the general sentiment of the island. The Church of England has played no small part for its betterment. At the last meeting of the Diocesan Synod at St. John's the subject of education formed a very important part in the proceedings. A petition was drawn up and sent to all schools under Church of England Boards throughout the island. These were largely signed and sent in to the government. The result of this unanimous appeal was \$5,000 for the improvement of education. This amount was voted under a Loan Act. Although this amount was small it stopped many a hole and opened the way, so to speak, for further grants.

A Bill has been passed and the government has voted the sum of \$15,000 for the improvement of education in Newfoundland.

Hon. Robert Bond, Colonial Secretary, in addressing the house, said, that the greatest amount of good to be derived from this grant would be by raising the teachers' salaries and keeping in the field what teachers we have. During the past ten or fifteen years teachers, as soon as they become 1st grade, leave their schools and go to the States or Canada where ample scope is to be found for their talent.

The Central Board, which is about to be established, will do well in distributing this amount to raise the salaries of teachers. Teachers in Newfoundland are very poorly paid, scarcely enough to live decently. What is \$200 to pay towards books, clothes and travelling expenses for a man? and yet many will say that teachers are well paid for their services. To my mind a very few years hence will find us in a more progressive position and brought more on a level with our neighboring provinces—Nova Scotia and New Brunswick.

Undoubtedly a great change has been wrought in Newfoundland during the past few years, and the advantages of education are certainly better understood and appreciated than they were. The parish priest has often to listen to the lamentations of the

aged poor of his flock—that they cannot read, that schools were not so common in their days as they are now, that learning was not so much thought of when they were young, etc., and many such will willingly and thankfully acknowledge the superior advantages which their children and grandchildren possess in the present schools of their own town or village.

Bonavista, Newfoundland.

J. T. C.

For the REVIEW.]

**Normal School Examinations.**

Steps should be taken towards lessening the amount of elementary teaching in the Provincial Normal School of New Brunswick by requiring more of student teachers at their entrance examination, or at least by giving more value to a pass at that examination, so that their time in the school may be more largely devoted to professional work and their minds relieved of much of the uncertainty attending the result of their final examination for license.

At present, I believe, the equivalent of an examination for license of class III. is required of all candidates for matriculation into the Normal School. Why not make this a provincial examination for license of that class in all but professional subjects, so that those who pass successfully need only be further examined in the latter subjects to obtain a third-class license at the end of their course? As it is now, applicants for class III. have to repeat in substance the same examination which admitted them to the school—surely a needless work and worry for them.

And since there are from fifteen to twenty subjects in the examination for license of class I., it is a serious question whether candidates required to present themselves for all at one examination can do themselves justice at the time, or fully profit by their Normal School course with such an ordeal before them. It has been suggested that the required subjects be divided into two groups, in either of which a candidate might pass and obtain a certificate at any provincial examination; license of higher class, however, not to be granted until the applicant has satisfied the requirements of both.

Group A might include geography, history, arithmetic and such other subjects as are supposed to be well taught in our common schools, and a class I., class II. and class III. examination in these subjects be offered to applicants for admission to the Normal School, with the understanding that a certain average percentage would relieve them from having to meet the same examination again. Group B to include the higher branches and professional training, could be open, as at present, only to graduates of a Normal School.

Is there not time yet before the next session of the school begins for the Board of Education to consider the advisability of adopting such a plan?

St. Stephen, N. B.

J. VROOM,

### The Summer School of Science.

The Summer School of Science for the Atlantic Provinces met at Antigonish, N. S., on Monday evening, July 27th, and continued its sessions until Friday August 7th. The Rev. Dr. McNeil, President of St. Francis Xavier College, placed the ample and well equipped class rooms and laboratories of that institution at the disposal of the School, and the pleasantness of the situation and ample facilities contributed not a little to the interest of the occasion.

The opening meeting was held in the assembly hall of the College at 8 p. m., at which prominent citizens of Antigonish took part, extending a welcome to the visitors and expressing sympathy with the objects of the school. The annual address of President McKay dealt with some of the aspects of Technical Education, and his admirable exposition of the true purpose and intent of manual training, clothed in forcible and, at times, poetic language, received the closest attention of the audience.

The work and recreation of the school, as usual, were so admirably blended that it was the student's ideal rest. Take the programme for one day as an instance: In the morning from 9 to 10 botany is the subject, with Mr. Hay and Miss Forbes. The work is altogether of a practical character, and the excursions and walks that may be made during the day are planned so as to continue the work in this subject, which is a very popular one with the school. During the remainder of the morning the other biological sections — physiology and zoology — meet, and though the dissection of parts of animals is not undertaken with the same relish as the parts of plants, any repugnance is soon overcome by the interest which the instructors infuse into their classes. Dr. M. L. Angwin, a lady physician of Halifax, conducts the classes in physiology and Mr. Brittain in zoology. From 12 to 1 classes meet in geology, mineralogy and chemistry. Prof. Coldwell, of Acadia College, has charge of the first two subjects, and there are many other practical geologists in the school to give their aid to the excursions that are frequently made to interesting localities in the neighborhood. The chemistry class is under the management of Prof. McAdam, of St. Francis Xavier College, and the same practical turn is given that characterizes the other work of the school. In the afternoon those who are not engaged in field work or in taking a rest have a varied programme from which they may choose. A section was formed this year in histology and the management and use of the microscope, under Principal McKay, of the Halifax Academy, whose scientific

attainments and genial enthusiasm have contributed so largely to the life and activity of the school. This section meets at 2 o'clock, and from that to 6 classes in physics, under Principal E. McKay, of New Glasgow, in Tonic Sol-fa with Miss Ryan, of Halifax, and psychology with Dr. Hall, of the Nova Scotia Normal School, are held. The latter section is a new feature of the school, and may be enlarged next year to take in another subject. Dr. Hall's wide experience, and his knowledge of the German system of education, make him a valuable auxiliary to the school. In the evening one may choose elocution under Miss Magee, or astronomy with Principal Cameron, of Yarmouth, or both. All who can be interested in astronomy — and who cannot? — remain till a late hour, exploring the wonders of the heavens under his guidance. He loves his work and he spares neither time nor pains to make those who have the capacity to follow him love it too.

On Wednesday afternoon, July 29th, the members of the school made the ascent of the Sugar Loaf mountain, which lies to the northwest of the town. No prettier view can be imagined than that presented from the top of the succession of hills on the way to the mountain. From the highest of these the party made a long halt to enjoy the glorious panorama unfolded to the view. On one side lay the town, nestling amid knolls, the little river winding like a silver thread amid white cottages and more pretentious mansions surrounded with trees, on the other stretched the Gulf of St. Lawrence with the north shore of Cape Breton in the distance.

On Saturday, August 1st, a large party drove to Arisaig to study its geological features, under the leadership of Professor Coldwell and Principal A. H. MacKay. The Arisaig shore, which was skirted for the last ten miles of the journey, is very picturesque, looking over the gulf of St. Lawrence, with glimpses here and there of Pictou and Prince Edward Island in the distance. Arriving at Maccara's Brook the party lunched. During the interval between lunch some members of the school explored the settlement, and discussed in Gaelic the prospects of the crops, the political situation, etc. The Gaelic tongue was a strange one to some of the party. Here is a specimen: It is the correct thing on meeting a Gaelic man or woman to say, "*Kimmer hash pain diouch?*" to which he will probably answer, "*Play vagh.*"

In the course down the bed of Maccara's Brook a fine opportunity was given to observe the junction of the great carboniferous and Devonian systems. Next the coast was traversed for the distance of three miles toward Arisaig, and the series of volcanic and Silurian formations observed and explained.



Wednesday, August 5th, the citizens of Antigonish entertained the school at a pic-nic on the shore of Lochaber lake. Over 30 carriages, filled with citizens and their guests drove out of Antigonish. The day was perfect in its loveliness, and the scenery well fitted to awaken the enthusiasm of lovers of nature. After a sumptuous repast had been partaken of near the shores of the lake, the table became transformed into a platform, and for an hour or more the feast of reason and flow of soul went on, and speeches followed one another in rapid succession. An address to the members of the school was read by Mr. Manson. Rev. Mr. McLean presided. Supervisor McKay replied on behalf of the Summer School, and addresses were given by Rev. Dr. McNeil, Principal A. H. MacKay, W. T. Kennedy, secretary of the school, Principal Cameron, W. R. Campbell, Principal of the Model School, Truro, J. Brittain of the N. B. Normal School, Prof. Coldwell, C. P. Chisholm, M. P. P., G. J. Oulton, Dorchester, Hon. A. McGillivray, Hon. C. F. McIsaac, C. B. Whidden, Esq., Dr. Cameron.

The summer school closed on Friday, August 7th, to meet in St. John, in July 1892.

The following are the officers and instructors for 1892.

*President*—G. U. Hay, Ph. B., St. John.

*Vice-Presidents*—Prof. McDonald, Antigonish, Supervisor McKay, Halifax.

*Secretary-Treasurer*—W. T. Kennedy, Halifax.

*Executive Committee*—The President, the Secretary, Principal A. H. MacKay, Inspector Carter, Inspector Lay, Secretary March, Principal Cameron, Prof. Brittain, Supt. Hayes.

#### INSTRUCTORS.

*Astronomy*—Principal Cameron, Yarmouth.

*Botany*—Principal Hay, Inspector Lay, and Miss Forbes.

*Chemistry*—Prof. Andrews, Mount Allison.

*Elocution*—(Not selected.)

*Geology*—Prof. Coldwell (Acadia), and Mr. Matthew.

*Microscopy*—Principal A. H. MacKay, Halifax.

*Mineralogy*—Prof. Coldwell.

*Music*—Miss A. F. Ryan, Halifax.

*Physics*—Principal E. MacKay, New Glasgow.

*Physiology*—(Not selected.)

*Psychology*—J. B. Hall, Ph. D., Truro.

*Zoology*—Prof. John Brittain, Fredericton.

*English Literature*—Principal Cameron, Yarmouth.

*History of Education*—Prof. Eaton.

*Didactics*—Principal Mullin, N. B. Normal School.

#### STUDENTS OF THE SUMMER SCHOOL OF SCIENCE.

Miss Lottie Cliff,	Fredericton.
" Isabel Everett,	"
" Annie Harvey,	"
" Janie Harvey,	"
" M. A. Clark,	"
" Sarah G. Duff	"

Miss Annie J. Moore,	Petitcodiac, N. B.
" Agnes Hamilton,	Moncton, "
" Agnes McSweeney,	" "
Mr. G. J. Oulton,	Dorchester, "
Miss Marion Scarfe,	Dartmouth.
" Mary Mosely,	"
" Agnes Johnston,	Halifax.
" Annie J. Mitchell,	"
" Ida Wiswell,	"
" Amy Saunders,	"
" V. F. McPhee,	South River, Antigonish.
" Cecilla Sinclair,	Antigonish, N. S.
" Mary C. MacDonald,	"
" Angeline O'Brien,	"
" Mary McNeil,	"
" Symphorosa O'Brien,	"
" Mary Lee Manson,	"
Mr. W. A. Chisholm,	"
Mr. Ronald Macdonald,	Little Glace Bay, N. S.
Miss Lydia Phillips,	" " " "
Miss A. M. Cavanagh,	New Glasgow, "
Miss Mary Wilson,	" " " "
Miss M. C. Jack,	" " " "
Miss Minnie McLean,	" " " "
Mr. D. K. Grant,	" " " "
Mr. Daniel E. Campbell,	Inverness County, "
Miss Barbara McInnis,	" " " "
Miss Mary Reeves,	" " " "
Roderick Dunphie,	West Bay, Richmond Co., N.S.
Mr. B. S. Banks,	Annapolis County, N. S.
Mrs. A. H. McRobert,	Pictou, N. S.
Miss Elizabeth H. Stewart,	" "
Miss Annie Dewar,	" "
Mr. J. M. Longley,	Guysborough, N. S.
Miss Alice Stewart, Melrose,	" County.
Miss Mattie McKeen,	Cornwallis, King's County.
Miss Georgie Wagner,	Barney's River, Pictou Co.

#### Botanical Notes.

*Parnassia parviflora*, a plant new to New Brunswick and Nova Scotia, was found at Arisaig, N. S., by Mr. Brittain, during the recent session of the Summer School of Science.

*Fucus serratus*, a species of alga, was found growing in abundance along the Arisaig Coast. Its only known station in North Eastern America (except a fragment found at Newburyport, Mass.), was on Pictou Island, from which it appears to be spreading.

The following secretaries for New Brunswick, of the Botanical Club of Canada, in addition to those named in the July REVIEW, have consented to act: Helen T. Galt, Campbellton, Restigouche; Hermann C. Henderson, Andover, Victoria.

Heaven preserve education from politics! . . . .  
We cannot expect angelic wisdom and seraphic zeal for four or five hundred dollars a year. — Prof. Goldwin Smith at Toronto.

**DOMINION EDUCATIONAL ASSOCIATION.**

During the recent meeting of the N. E. Association in Toronto, a meeting of 600 teachers, representing all the Provinces of the Dominion, was held and a Canadian Educational Association formed. The Hon. G. W. Ross, Minister of Education for Ontario, presided, and addresses in support of the movement were made by the prominent educationists of Canada who were present. The first step was the appointment of a provisional council, with power to add to the number, the council to consist of the superintendents of Education for the various provinces, the presidents of universities, principals of normal schools and the presidents of all existing teachers associations. The council for the Atlantic Provinces is composed as follows:

New Brunswick.—Dr. Inch, Chief Superintendent of Schools; Dr. Harrison, New Brunswick University; Eldon Mullin, Principal of N. B. Normal School; H. V. B. Bridges, Inspector Public Schools; John March, Secretary St. John N. B.; F. H. Hayes, Superintendent St. John City Schools; Rev. Abbe Le Fabre, St. Joseph Academy; W. M. McLean, B. A.; H. C. Creed, M. A.; George U. Hay, Ph. B.

Nova Scotia.—Dr. Allison, Superintendent Public Instruction; Dr. J. B. Calkin, Truro Normal School; Dr. Forrest, President Dalhousie University; Rev. Dr. Sawyer, Acadia; Rev. Dr. Willet, Kings; Rev. Dr. McNeil, St. Francis Xavier; A. H. MacKay, B. A., Halifax; Alex. McKay, President Summer School of Science, Maritime Provinces; A. Cameron, Yarmouth; I. B. Oakes, Wolfville.

Prince Edward Island.—James Nicholson, Superintendent Public Instruction; Dr. Anderson, Principal Prince of Wales College, and President Teachers' Provincial Association.

Newfoundland.—The Superintendents of Public Schools.

Immediately after the close of the general meeting the council met to organize and the following officers were unanimously elected:

*President*—Hon. G. W. Ross.

*Vice-Presidents*—The Superintendents and acting Ministers of Education.

*Secretary*—Rev. E. I. Rexford, Montreal.

*Treasurer*—E. W. Arthy.

The following gentlemen were appointed a Committee on Constitution:

Hon. G. W. Ross, Drs. Burwash, Bland, McLellan and Mr. Kirkland, with power to advise with the Provincial Superintendents of Education.

The following Committee on Programmes was also appointed:

Rev. E. I. Rexford, convener; Sir W. Dawson, Dr. McLellan, Messrs. Goggin, Calkin, Hayes and Anderson.

The Executive Committee were given authority to fix the time and place of meeting, and to appoint sub-committees on entertainment and transportation.

The board of education in New York city has recommended that "no appointment hereafter made of any teacher under other than his or her proper name shall be valid." *Susie* may be appointed, but *Susan* holds the position.

**INTERNATIONAL EDUCATIONAL CONVENTION.**

Toronto, the Queen City of the west, for four days, beginning 14th July, was the vortex into which, from every quarter of the continent, some twenty thousand, as the newspapers put it, of the educators of America were drawn in together. The newspaper estimate, based on the excess of arrivals during the week over the normal arrivals, is probably correct as to the number of visitors; but at any one point at one time probably no more than six or seven thousand were present; and but few speakers could make themselves heard at the periphery of such an audience. In the evening the mammoth meeting was held in the large rink of Mutual Street, which was closely seated in front and rear of the platform with galleries around. The Granite Rink building, with its fine exhibits of educational work, was opened generally with a band in attendance, and excursionists were constantly moving to myriads of points, so that except on the occasion of the concert given by the school children of Toronto the Mutual Street Rink was able to accommodate the legions attending. The morning meetings were held in the pavilion of the beautiful horticultural gardens. In the afternoon the convention broke up into a number of sections or departments which met in as many of the neighboring churches or halls procurable. Some of these section meetings were very large affairs. There was the: 1. Department of Higher Education, where a large meeting of university professors discussed matters pertaining to the department for three successive days and so on with the following. 2. Secondary Education. 3. Elementary Education. 4. Kindergartens. 5. Normal Department. 6. Department of Superintendence. 7. Department of Industrial Education and Manual Training. 8. Art Department. 9. Music Department. 10. Conferences for Original Research. Our readers will see that to give an account of all that was said and done at such a convention would fill our pages for a year to come. But anything of that kind we never thought of attempting.

Our cousins from the States wore N. E. A. badges with an additional one indicating their state in large letters. The offensive brag so often exhibited as caricatures in the newspaper was not there. But instead there was an interesting rivalry as to which state was the most progressive; and the good points of each were hurled into the scales of public opinion in turn, sometimes with scale vibrating momentum. Sitting beside a Mississippi State officer we asked for the name of a Missouri orator who was holding the platform and was astonished to find that Mississippi knew no more of Missouri than Canada did. In this

way we learned to feel the bigness of the continent and to realize that the Republic was a federation of States, each of them with room enough to absorb the attention of ambitious men. All were sound on the union question, some as if they loved it, others as if they felt the duty of it. Their national laudations were always in good taste. They claimed an inheritance in our British flag and our British history as did the Canadian, and they loved them next to their own. The Canadian admitted the claim and reciprocated the love. They alluded to Independence day, without a Canadian groan; to a patriot's day, without a scowl from the southerner; and they generously cheered the Canadian patriots who did not run away from the borders in 1775, 1812 and on subsequent occasions. Sometimes there was a little good natured blowing; but the Canadian always overspread the eagle. *States*, "The great National Educational Convention." *Canadian Echo*, "But the greatest is held in Toronto." And so it was. *S.* "The federation of States which extend from the Atlantic to the Pacific." *C.* "The federation of Dominions which girdle the world." *N.* "60,000,000." *C. E.* "300,000,000." Such chaffings, however, were not a feature either in the public or private intercourse. The visitors were too polite to do more than praise Toronto generosity, the efficiency of the Ontario school system, and to show that a Canadian from the North Pole or the sea was just the same to them as if he hailed from Texas or New York, and that we, *British Americans*, were the finest people on the globe and intended to demonstrate the same to whomsoever dared to doubt.

Among the Canadians present, Principal Grant, who is well called the "Grand young man of Canada," stood first, and in fact he had no peer as a powerful platform speaker. Occupying the place in the programme made for the late Sir John A. Macdonald, he struck the keynote of international harmony which sounded throughout the whole convention and was repeated in his closing address on the "Influence of the Schools Nationally and Internationally."

Dr. Ross, Minister of Education for Ontario, did honor to all Canada, for in personal ability as a speaker and thinker, and as a man who had the results of his work to show in the school system of Ontario, he was the peer of the ablest representatives from the Republic. Inspector Hughes, of Toronto, was the indefatigable and brilliant genius who chaired the Executive Committee of Toronto, in receiving the visitors and providing for them in their various capacities. Dr. Allison and others from the Atlantic Provinces were most enthusiastically received by their foreign kinsmen and Canadian brethren.

The result on Canadians was immediately to develop a strong Canadian fellowship, and soon badges of the N. E. A., with "CANADA" in large letters, were printed and absorbed without satisfying but a fraction of the demand. Minister Ross's idea of a Dominion Association instantly crystallized into existence with a vim which surprised beyond calculation the expectation of its promoters. Of the provisional organization of this Association we give an account elsewhere and shall in future refer to it.

Such educational gatherings as that held recently in Toronto cannot fail to have a most beneficial effect upon the future of the teaching profession. Toronto is to-day probably the best advertised city in America, and the eagerness with which some of the western American cities canvassed for the honor of being the place of the next meeting shows in what appreciation these meetings are held by these wide-awake people at least. It is said that one western city defrayed the entire expenses of a large delegation sent for the purpose of influencing the selection of that city as the place of the next meeting. As far as practical experience and knowledge directly in line with the average teacher's every day work are concerned, these large conventions may not be of very great value, but the contact and mingling with such a vast assemblage of teachers, some of them among the most eminent in the world, cannot fail to be most impressive and inspiring. The social aspect, too, of these great meetings is one that should not be underrated by any teacher.

#### The Meaning of A1.

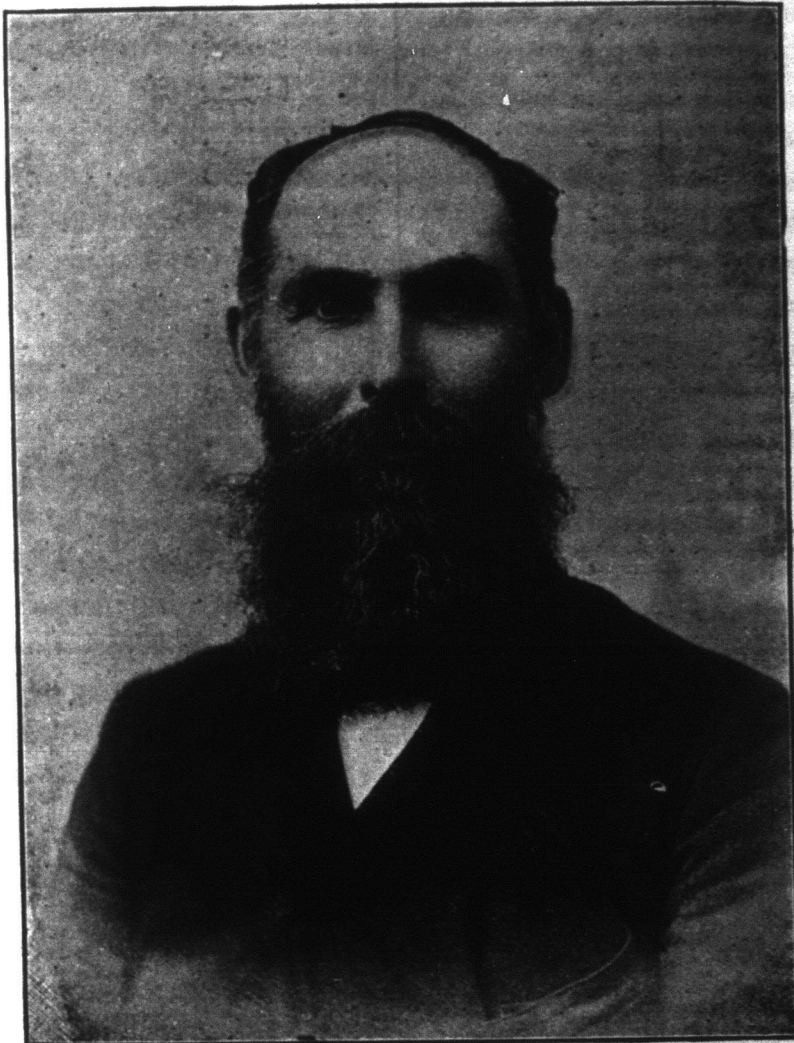
The common, every-day expression, of the English speaking race for supreme excellence is A1. Its origin is peculiar. In 1716 Edward Lloyd, of London, began to publish a weekly shipping paper known as *Lloyd's List*. In this, as at first published, the vessels were assigned to classes designated by the letters A, E, I, O, U, which referred to the vessels' hulls, while the G, M, B, meaning "good," "middling," and "bad," related to the vessel's equipment. Thus the class AG denote a first-class ship, with a good outfit, while UB was the designation given to the ship of the lowest class with a bad outfit. In the register printed in the year 1766 it is observed that the numerals 1, 2, 3, 4, were adopted for the first time in describing the condition of the vessels' equipment, the Roman capitals A, E, I, U remaining unchanged as representative of the classification of the hull. This is the earliest record extant of the familiar term A1.

**SUPERVISOR MCKAY.****President of the Summer School of Science, 1891.**

The subject of this brief sketch is worthy of our notice as one of the ablest educationists which the Province of Nova Scotia has produced, as well as on account of his being at the head of the Summer School of Science for the Atlantic Provinces of Canada for the present year, a position which indicates more than a provincial appreciation of merit. He has just completed his fiftieth year, and, as our portrait may suggest, he is a man of commanding presence, deliberate in every pose, his countenance at rest, suffused with the severe cast of thought indicative of a mind habitually forming its own conclusions, which always inflexibly guide its purpose.

To this add an honest boldness of speech, ceaselessness of labor, an inflexible devotion to equity and what promises to be of the best advantage to the public interests in the end, and a marvellous depth of consideration and tenderness for the individual, and the outline is somewhat as it strikes the observer.

Alexander McKay was born in Earltown, Colchester county, N. S., on the 16th July, 1841. In his fifteenth year he taught school at Dalhousie, in the county of Pictou, and afterwards at Toney River. He studied under Dr. Forrester at the Normal School in Truro for two winters, graduating in the spring of 1859 at the age of 18. Subsequently he taught in the counties of Digby, Colchester, and Kings for eleven years. In 1872 he resigned the principalship of the school in Wolfville to take charge of the Dartmouth schools, Halifax county, where, for nine years, the highest department, taught by himself, attained high proficiency, especially in chemistry and physics. In 1881 he was appointed to the department of Mathematics and Natural Science in the Halifax High School. About this time he was associated with



some of the professors of Dalhousie University and others as the instructor in Mathematics in the Institute of Technology, where he had the largest class in the institution. In 1884, after spending twenty-four years in the schoolroom, he was appointed Supervisor of the Halifax schools, which position he occupies to-day. Here his wonderful power for stimulating and properly directing educational effort has been specially illustrated.

Besides studying exhaustively the literature of educational reform abroad, he visited and studied the leading schools of the continent. In 1885 he made a special study of those of Toronto, Toledo, Washington, New York and Boston. And early this summer he spent four weeks in the United States studying the development of manual training, with a view of its introduction into the Halifax educational system; and at present everything is in readiness for the opening of this department this fall. Through his work in the Halifax schools, his reports, published from year to year, his work in teaching associations, and his forming of classes of teachers in Halifax for special work and study in the direction of advanced scholarship and skill, and by his counsel otherwise, he has very materially aided in advancing educational

reform throughout the Province, especially in the introduction into the curriculum of Drawing, Calisthenics, Tonic Sol-fa, Kindergarten work, and Manual Training. In addition to such work he has also performed more than his share of the general citizen's labor; for we find him for sometime a member of the municipal council of Dartmouth, a director and examiner in the old Acadia Science Club, and at present secretary of the Nova Scotia Institute of Science for many years, secretary of the Provincial Educational Association since 1876, a Director of the Victoria School of Art and Design, a Director of the Halifax Ladies' College, a member of the Provincial

Exhibition Committee, in all of which capacities he has been one of the greatest capacity for doing work and doing it promptly and well. From the organization of the Summer School of Science he has been one of its directors and chief promoters; and as President at the Antigonish session he directed the general work with his usual skill, and set in train arrangements for more extensive work in the session of 1892.

#### Astronomical Notes.

THE PLANETS — AUGUST 15 TO SEPTEMBER 15.

##### JUPITER.

The planet for this season is the giant one of the solar system, appropriately named after the ruler of gods and of men. He will not be an evening star in the technical sense of the term until September 5; for not until that time will he be in the meridian before midnight. But he is by far the biggest and brightest and most splendid object in the evening sky — barring the moon, of course — and he may be seen all night and until after sunrise in the morning during August. On August 15 he rises — in latitude  $45^\circ$  — at 8 o'clock in the evening and sets at 7 in the morning. (These hours are mean time, and so are all others given here unless otherwise specified.) On September 15 he rises at 5.48 in the afternoon and sets at 4.40 in the morning. He rises a little to the south of east and sets a little to the south of west. The veriest novice at star-gazing can easily distinguish him as the brightest star in the southeast during the early evening.

He is in the constellation of Aquarius and is retrograding, that is, moving among the stars from left to right. Of course he is also moving across the sky from left to right, but the stars share this apparent motion with him. The other motion, the motion among the stars — and this is the motion to which he owes the name of *planet* — can be easily observed by referring his position on successive evenings to the position of the stars near him. The naked eye is all the instrument needed for this kind of observation, but motion will be observed in a shorter time and in a more marked manner with the help of an opera-glass. On the evening of August 17 he will be very close to a star of about the fourth magnitude, Phi Aquarii. The star will be directly north of him on this evening, and at a distance a little less than the breadth of the full moon, but the distance will probably seem much less than that to most eyes. On the evenings before the 17th he will be to the left of Phi; after the 17th he will move slowly off to the right towards a sixth magnitude star ( $\eta$  or 83 Aquarii) which lies a

little below the line joining Phi with Lambda. On September 6 Jupiter will be very close to  $\eta$ , and it is quite likely that for a few days about that time some observers may mistake  $\eta$  for one of Jupiter's moons. Mistakes of this kind are often made.

A pretty triangle of stars below Jupiter will probably catch the eye that is watching him. They are the Psi's of Aquarius. One of them is a standard star of the fifth magnitude, the other two are a little brighter than this. The one nearest Jupiter is a fine double, showing yellow and blue colors, but it is too difficult for a field-glass.

Jupiter will be at his brightest during the first half of September, but the eye of the average observer of him will perceive little or no difference during the whole season of his appearance as evening star. In this respect he differs much from Mars, whose changes of brilliancy we were watching last year. But Jupiter's brilliancy is different at different times, and at present it is more than twice as great as it was towards the end of March last when some of the sharp sighted readers of the REVIEW — the Managing Editor leading on — got their first glimpse of him for this year. He was then not far from Venus, and as one of these observers remarked, he was "not a patch to Venus." At present poor Venus is much less of a patch to Jupiter. Next February Jupiter's brilliancy will again be down to where it was in March, and I shall be glad to hear from those who then get the latest glimpses of him in the sunset sky.

Jupiter and his moons are a splendid sight in a telescope, and many of the star-gazers at the Summer School of Science enjoyed this sight through the telescope belonging to St. Francis Xavier's College. But even where there is no telescope one may get a peep at these interesting appendages of the jovial planet. Very good field-glasses will show all four of them when favorably placed for observation; and the smallest sort of opera-glass will sometimes show one. The easiest one, usually, is the one named Ganymede, but better known as No. 3. An opera-glass should show at least this one on almost any evening between August 15 and September 15. The following will be least favorable evenings for seeing No. 3: August 16, 19, 23, 26, 30; September 3, 6, 10, 13. A full moon in the same part of the sky with Jupiter is not favorable to this kind of work, but the star gazer should not be too much afraid of trying his glasses in moonlight; he will sometimes find it a help rather than a hindrance to what he is trying to do.

Venus, Mars and Saturn are of little interest to the star gazer at present. Mars is at his very worst, being at his farthest distance from the earth in space

and very close to the sun in the sky. Venus is nearly as bad, and is growing worse daily. So is Saturn.

*Mercury* should be a good object as evening star at present, according to the text books and journals, which makes his greatest elongation the most favorable time for seeing him. His greatest elongation for this season happens on August 16. That is one favorable condition for observation; but it is offset by two very important ones. He is in aphelion, that is, in the part of his orbit farthest from the sun; and therefore, is receiving his very least share of the sun's light, and so he is at his weakest in the matter of light-giving. Then he is much further south than the sun is, and so he sets soon after sunset, while the twilight glow is still too bright for him to show himself in his weakened condition. Given a clear sky close down to the western horizon, given also a good field-glass and a knowledge of where to point it, and Mercury can be seen for a few days after even so bad a greatest elongation as this; but with less than these data it is not worth while looking for him.

As long as long Spica can be easily seen with the eye in the southwestern sky, so long may *Uranus* be found with a glass. But if not already well acquainted with the small stars near Spica, it is now too late to try to discover *Uranus* by his planetary motion.

*Neptune* will soon be in position to try our field-glasses on him again in the evening. On August 15 he is in right ascension 4h 30m and declination north  $20^{\circ} 14'$ , and rises at 11.30. On September 15 his place is practically the same, but he rises at 9.30.

*Vesta* was at her best this year in the end of June, but she is still within easy reach of a small glass. Pick out the two stars in the handle of the Milk-Dipper. Look off to the right of the line joining them for a little patch of light. Put your glass on it, and you will see a cornet-like body with a few outlying stars. This object is 8 Messier. To the right of this, at a distance less than the diameter of an ordinary field-glass, you will find some small stars. On August 15 *Vesta* will be one of these — one of the brightest of them. If you make careful observation for a few evenings you should depict her by her motion among the other little fellows. She is moving among them to the left, and on Sept. 5 she will be nearly a degree to the south of 8 Messier.

A. CAMERON.

Yarmouth, N. S., August 9, 1891.

THE EDUCATIONAL REVIEW has entered upon its fifth volume. It is doing a good work among educationists and is deserving of the fullest measure of success. —*St. Andrews Beacon*.

### Notes for Teaching Music by the Tonic Sol-fa Notation.

#### THIRTEENTH PAPER.

#### HISTORICAL NOTES CONTINUED.

The point reached in the last article was the singing of 3,000 children to 30,000 people in the Handel Orchestra in the Crystal Palace in 1857. Mr. Curwen's son, Mr. I. S. Curwen, President of the Tonic Sol-fa College, London, says that the jubilee celebrations this month (July) are to commemorate the commission Mr. Curwen received at a conference of Sunday school teachers in Hull in 1841. He had already visited Miss Glover at Norwich, and he said that he believed music was easy if only we knew the way. Mr. Curwen was solemnly charged by the president, a minister, and he accepted the charge, to find out the simplest way of teaching music and to get it into use. It was agreed the system must be easy, for the people have little time, and cheap, for many are poor; and true, because truth prevails.

Thus, the Tonic Sol-fa notation of music was begun for children. It began among the children and the lower classes, and among these has been its greatest mission. The Government Inspector of Reformatory Schools says: "It works wonders." All the music at Dr. Barnardo's homes is done by the Tonic Sol-fa system. The hand bell ringers play from the letter notation. At the Medway union schools at Rochester the boys sing choruses in three parts from cantatas. They can sing a chant at sight written in three parts in the staff notation. Their band of stringed instruments can play from either notation, but prefer the Sol-fa.

The board school children to the number of several hundreds, with the aid of tenors and basses, have rendered the Messiah to a vast audience in the Kinnaird Hall, Dundee. Lieutenant Havergal R. N., in a paper testifies to what Tonic Sol-fa has accomplished in a short time in H. M. ship "Alexandra," the Duke of Edinburgh's flag-ship in the Mediterranean. The admiralty adopted the system in 1885. The children's bright singing in two parts performs a work of mercy in the Cripples' Home in Regent Park, making sunshine for the little cripples. But the promoters of this notation, which has done so much good in the world, received no help or encouragement from the powers that be. The only notice that it received from such was persecution. One of its earliest teachers lost seven out of eleven schools which she visited when she adopted the system. Its pioneers have received honors from no educational or scientific society.

Mr. Curwen kept fully in touch with the masses. Yet he was always leading on his disciples to higher

musical attainments, and climbing the ladder which he provided. Many have become bachelors and doctors of music, associates of the Royal Academy of Music, vocalists and instrumentalists of repute. A doctor of music who graduated recently says he believes he could never have done his work without Sol-fa. Mr. Ben. Davies constantly advises opera singers, who wish to read at sight, to learn the notation. This system has gained the approval of such scientists as Dr. Helmholtz of Berlin, Sir John Herschel, Mr. Bosanquet, General Thomson and Mr. A. Ellis. But let us resume the history of the notation.

In 1858 a classical concert was given in Exeter Hall. This year Mr. Curwen published "The Standard Course." Towards the end of 1859 the old certificate was withdrawn, and the elementary, intermediate and advanced certificates took its place.

The next great event in the movement was the grand concert and choral competition of adult evening classes in town and country on September 4th, 1860, in the Crystal Palace. The judges were: The organist of St. Paul's, the secretary of the Philharmonic Society, the Principal of the Royal Academy of Music, the secretary of the Madrigal Society and the organist of Westminster Abbey. The scholars numbered about sixty voices each. The competition consisted of difficult sight tests in both notations, and each choir sung three pieces of their own selection. One of the competing choirs was from Edinburgh. After the judges retired to decide an audience of 20,000 entered the hall to hear the singing, 1,500 adults, all holding at least the elementary certificate.

The Tonic Sol-fa school was formed in 1862 to promote thoroughness in teaching, and to impart knowledge and taste to the teachers. The first work undertaken was exercises in the analysis of classic harmonies. The students in England and Scotland posted their exercises to Mr. Curwen. In 1863 construction exercises were begun.

(To be continued.)

#### Sunset and Sunrise.

Bow your heads, daisies white, daisies white;  
Bow your little heads, purple clover,  
And shut your eyes up tight, for soon it will be night—  
The sun sets, and day-time is over.

Lift your little heads, daisies white, daisies white,  
And open all your eyes, purple clover,  
For the sun is coming up to cover you with light,  
And to tell you that the night-time is over.

—W. S. Reed, in August St. Nicholas.

#### The Wolves.

Ye who listen to stories told  
When hearts are cheery and nights are cold,  
Of the lone woodside and the hungry pack  
That howls on the fainting traveller's track;  
Flame-red eye-balls, that waylay  
By the wintry moon the belated sleigh;  
The lost child sought in the dismal wood  
The little shoes and the stains of blood —  
On the trampled snow. Oh! you that hear  
With thrills of pity and chills of fear,  
Wishing some angel had been sent  
To shield the helpless and innocent,  
Know ye the fiend that is crueler far  
Than the gaunt, grey herds of the forest are?  
Swiftly vanish the wild fleet tracks  
Before the rifle and woodman's axe.  
But hark to the coming of unseen feet  
Pattering by night through the city's street.  
Each wolf that dies in the woodland brown  
Lives a spectre and haunts the town.  
By square and market they slink and prowl,  
In the lane and alley they leap and howl;  
All night they snuff and snarl before  
The poor patched window and broken door;  
They paw the clapboards and claw the latch,  
At every crevice they whine and scratch.  
Their tongues are subtle and long and thin  
And they lap the living blood within;  
Icy keen are the teeth that tear,  
Red as wine the eyes that glare.  
Children crouched in corners cold  
Shiver in tattered garments old,  
And start from sleep with bitter pangs  
At the touch of the phantom's viewless fangs.  
Weary the mother and worn with strife,  
Still she watches and fights for life,  
But her hand is feeble and weapon small,  
One little needle against them all.  
In evil hour the daughter fled  
From the poor shelter and wretched bed.  
Through the city's pitiless solitude  
To the door of sin the wolves pursued.  
Fierce the father and grim with want  
His heart is knawed by the sceptre gaunt.  
Frenzied, stealing forth by night  
With whetted knife for the desperate fight,  
He thought to strike the sceptres dead  
But he smites his brother man instead.

Oh you that listen to stories told  
 When hearts are cheery and nights are cold,  
 Weep no more at the tales you hear —  
 The danger is close and the wolves are near.  
 Shudder not at the maiden's name,  
 Marvel not at the maiden's shame.  
 Pass not by with averted eye  
 The door where the stricken children cry,  
 But when the beat of the unseen feet  
 Sounds by night through the stormy street,  
 Follow thou where the sceptres glide;  
 Stand like hope by the mother's side,  
 And be thyself the angel sent  
 To shield the helpless and innocent.  
 He gives but little who gives his tears;  
 He gives his best who aids and cheers;  
 He does well in the forest wild,  
 Who slays the monster and saves the child;  
 But he does better and merits more  
 Who drives the wolf from the poor man's door.

[The above poem appeared in the *Atlantic Monthly* several years ago, anonymously, and the authorship still remains a mystery.]

#### The Influence of Trees.

It is becoming more and more evident every year that a great mistake has been made in this country by cutting the land bare of timber and leaving the farms without adequate shelter. There should be left a wood growth on all hillsides too steep to plow, such as those around Springbank and Byron, and in patches and belts along all slopes that are subject to washing or gullying, and also a strip along all water courses, there is no doubt. The reason for this is obvious. Wherever you travel half the year you will find our rivers a dirty chocolate color, laden with sand and soil. Where does it come from? It is the best part of the farms in the vicinity of the water courses, and millions of dollars worth of farm values go down the rivers every year for the lack of proper attention to forest growth. It is washed by the rains from the fields into the brooks and rivers, because the water's edge has been planted up to, instead of leaving a fringe of forest cover along the banks. It is washed from the slopes and knolls because they have been left uncovered, and the rain, leaking down and being unable to drain off subterraneously, has carried the soil and debris down the slopes, gullying the ground, reducing the farm value and filling up the rivers.

Mr. B. E. Fernow, of the department of agriculture, Washington, in a recent lecture said that the forest

cover, with its interposing foliage and undergrowth, its protection of fallen leaves and twigs, its intricate root system, and fallen trunks and branches, first of all retards the rain from reaching the ground, and thus breaks its force, and then retards the surface drainage and prevents the rush of water as over the naked soil; and, if large areas are being denuded in a hilly country, the chances are that both the flood springs and the flow of brooks and rivers are made uncertain, because the forest, while it acts as an equalizer in time and quality of the waterflow, is cut off.

The streams, that used to keep the ponds well filled for the saw-mill and grist-mill, and furnished a never failing supply for the farm, have, many of them, run dry in summer. And yet, with the warm rains of spring and the melting snow, they overflow their banks and their swift waters often carry away fences, bridges and embankments, and in the large streams the floods make sad havoc, destroying a large amount of property.

There is another influence that trees have, the absence of which is felt by the farmers. It is the shelter they offer. Now, with the country unduly open, spring opens late. The young cattle that used to be turned out into the wood-sheltered pastures, about the first of April, now are kept shut up until the middle of May. Peach orchards that were sure to be loaded every year with luscious fruit and furnish a good crop, now only furnish an exceptional one, and apples seem to follow the same rule. Drouth in summer and floods in spring time are now frequent and more destructive because the spring tree-sheltered belt and the forest floor have been destroyed.—*London, Ont., Free Press.*

#### A Plea for the Public Schools.

WHY SHOULD RICH AND POOR CHILDREN BE SEPARATED?  
 WHO ARE THE PHILISTINES?

The private school may be more fashionable than the public school; it is certainly superior in nothing else. The typical pupil of the private boarding-school is the philistine child. He has plenty of money and spends it freely on what only harms his better nature; he is shallow and sordid, but he makes great pretences, and is supremely satisfied with his littleness. The typical pupil of the public school is the boy who is not rich and is not very cultivated. His code of honor or of manners is not burdened by conventionalities; he values your son for his manliness and pluck, not at all for the shape of his collar or the size of his cravat. He is uncouth; but when once real refinement is brought to him, he admits its charm and is anxious to win some of its richness. Is



it not better for your own son, if you be a rich man, that he avoid the lifeless, conventional boy of fashion; and find a playmate in the bright, hearty, it may be rough boy from the middle class or from the home of poverty?

\* \* \* \* \*

Your sons must be made as refined and cultivated as a carefully regulated home-influence can make him; and then he must be sent to the public school, to rub against the coarseness of the boy of the town. If your boy cannot endure the rough contact, he is not worth an education. If he can, he will be a stronger man and a keener scholar because of it. Above all, he will give his less fortunate companion a glimpse of cultivation and refinement at the time when it has power to lift him.—*Chas. Lewis Slattery in New England Magazine for August.*

#### Music as an Aid to Discipline.

Medical authorities give facts concerning the power of music as a therapeutic agent that teachers would find of interest and benefit to themselves, if they once saw its application to their own work. Music is declared by nerve specialists in medicine to be one of the effective aids in curing diseased nerves. By means of pleasing melody the whole nerve system is invigorated. Insane people are influenced by music to such a degree that the most dangerous are quiet in church service.

Who has more to do with tired nerves than the teacher—not only with her own overstrained nerves, but with the nerves of the children who are restless, inattentive, and “out of sorts?” Half a hundred are shut up in one room, with irritated nerves, starved of fresh air and oxygen, and it is a wonder that more disorder, instead of less, is not the result. If but three or four words were allowed to be prescribed for the undisciplined schools where everything is “on edge,” these would be among the best—*fresh air, exercise, music.* The first is one of the most unobtainable luxuries in the United States as school buildings are constructed. The second, unless conducted on principles and *sense*, only increases the nerve tension in straining after “show” effects. The third is usually considered merely ornamental, and is found only where public sentiment has reached a certain point. If teachers knew the *power* of music as a method of discipline, it would be considered a necessity to hire an instrument, if one is not furnished, and find some means to learn to play, if only a few familiar airs. This has not yet been dignified into a “per cent.” requirement of teachers, but it is to be hoped that some day it will rank where it belongs in a teacher’s outfit. The kindergartners make

it a requirement in their training of pupils, and it means more than the words say when they exact it; for nerves, spirits, ambitions, hearts, and morals can be wonderfully influenced by the power of music in the school room when happily managed.

At a recent commencement exercise in a crowded opera house in a large city, the audience sat listless and breathless. The night was one of intense heat, and thousands of people who listened to the first orations with deep interest had drooped as perceptibly as the flowers they wore. Eloquence fell powerless, and every breath was an effort. The faint applause of the last speaker had scarcely died away, when the fine orchestra woke the audience with an outburst of “Dixie.” The magical effect can only be imagined. Fans fluttered, smiles beamed, feet tapped the time unconsciously, and even the piled up flower baskets looked fresher. The whole aspect of the house had changed, still nothing had changed but spirits—nerves; yet the next graduate received a tribute of interest and applause not due for superiority. There is never a school-room of children that cannot be “made over” when interest droops by the skilful introduction of music.—*School Journal.*

#### Do Explosions Cause Rain to Fall.

Everybody has remarked the frequency of rain on the Fourth of July or after a great battle. General Dyrenforth has begun experiments to discover if there is any relation of cause and effect between violent explosions and rain fall. He will seek to reproduce the conditions of a great battle, but instead having the explosions near the earth he will produce them as near the clouds as possible.

The first experiment was made the other day near Washington, D. C. Three balloons were used, made of oiled muslin, and inflated with five hundred cubic feet of gas, two part hydrogen and one part oxygen. The apparatus for distilling the gases was a contrivance adapted especially, by its simplicity and ease of transportation, for field work. The first balloon ascended to a height of about 1,000 feet. The gas was employed by a spark sent over the wire from a battery on the ground, and the noise was terrific.

The other two balloons were sent up tandem about six o’clock, strung to one wire and five hundred feet apart. There was an interval of only an appreciable instant between the two explosions, and the roar was more like a heavy clap of near thunder than the single detonation in the case of the first balloon. The balloons were shattered into small fragments that burned up as they slowly descended. No rain fell, of course, the experiments being only to test the ap-

paratus. The sheet of fire caused by the combustion of the gases was like a great horizontal disk. Gen. Dyrenforth proposes to use paper (which is cheaper) hereafter, and will form a line a mile or two long, if desirable, for simultaneous explosion. This month some practical tests will probably be made in the arid districts of Kansas and the Texas Panhandle.—*School Journal.*

#### A Born Courtier.

A pretty story is told concerning a royal compliment paid to the late Emperor William of Germany by a tiny subject. During a stay of the Emperor at the fashionable watering place of Ems, that monarch paid a visit to a large orphan asylum and school that was under government patronage. After listening with much interest to the recitations of several of the classes, his majesty called to him a bright, flaxen-haired little girl of five or six years of age, and, lifting her into his lap, said:

"Now, my little fraulein, let me see how well you have been taught. To what kingdom does this belong?" and taking out of his pocket an orange, he held it up to her.

The little girl hesitated for a moment, and, looking timidly up to the Emperor's face, replied:

"To the vegetable kingdom."

"Very good, my little fraulein; and now to what kingdom does this belong?" and he drew out of his pocket a gold piece, and placed it on the orange.

Again the little girl hesitated, but soon replied:

"To the mineral kingdom."

"Better and better," said the Emperor. "Now look at me, and say to me what kingdom I belong."

At this question there was an ominous silence among the teachers and visitors, who were listening with much interest to the royal catechism. Could she make any other reply than "To the animal kingdom?"

The little girl hesitated long, as if perplexed as to what answer she would give. Was the Emperor an animal? Her eyes sought those of her teacher and her schoolmates. Then she looked up into the eyes of the aged Emperor, and, with a half-startled, half-frightened look, as if she were evading the question, replied, "To the kingdom of heaven." And no one who knew the Emperor could doubt it.—*Household Words.*

The newly appointed assistant under secretary of state for the English war office, Sir Arthur Haliburton, is the youngest son of the famous Nova Scotian, Judge Haliburton, ("Sam Slick.") Sir Arthur was called to the bar in Halifax.

#### Manchester's Big Canal.

A most interesting and important event in the history of the English commerce took place recently at the Mersey terminus of the Manchester Ship Canal. At Eastham Ferry—a pretty spot much frequented, especially in the summer months, by Liverpool holiday makers—the great locks were opened, and for the first time the tidal water of the Mersey was admitted into the magnificent "ditch" which next year will turn Manchester into a seaport. The Manchester Canal is one of the very finest engineering achievements of the century—finer, in some respects, than the most famous of them all, the Suez Canal. Just three years and eight months ago the first sod was turned on the scene of yesterday's operations. A little while longer, and the tall masts of ocean ships will overtop the factory chimneys of Salford and Manchester, and monster steamers from all parts of the world glide through the cornfields of Cheshire. There is at least one gentleman, Mr. Ismay, of ship-building fame, who hopes to head the procession of ships next year from the Mersey to Salford Docks in a seven-thousand ton steamer of his own.—*London Daily News.*

#### Resources of Nova Scotia.

Nova Scotia is marvellously rich in natural resources. Within its limits there are far more valuable minerals than are known in any other territory of equal size—coal, gold, iron, manganese, antimony, marble, gypsum, limestone, and sandstone being found in great abundance. There is scarcely a county in the province from one end to the other in which valuable deposits of one or more of these minerals do not exist. Its extensive forests afford the best facilities for profitable lumbering and shipbuilding; its rivers, lakes, and coast waters teem with fish; its fertile valleys, productive mountain slopes, and inexhaustible marshes are adapted to every variety of agriculture, and its equable insular climate, free from all extremes of heat and cold, of wet and drought, is surpassed by that of few countries in the world. The land on which the New-Englanders settled, and of which large tracts were freely given them, consisted of the famous dikes in the center of the province, together with many acres of the almost as fertile upland near. The two townships of Morton and Cornwallis, in which many located, form part of the "Garden of Nova Scotia," as fine an agricultural and fruit growing country as any in the world, stretching eastward and westward between the adjacent mountain ranges in a soft, ever changing, luxuriant landscape, on which, almost uninterrupted, clear blue sky looks down.

The New England people who first settled in this charming region have transmitted to their descendants solid moral qualities and a high degree of intelligence. In education the county of Kings is foremost and I know no part of the continent where purer, I had almost said so pure, English is spoken, or so few solecisms in speech are heard.—*Harper's Bazar*.

#### The Influence of the Schools.

"There is a general impression that the spread of education has had a tendency to make the young people who enjoyed its advantages discontented with life on the farm, and to cause them to crowd into the cities and apply themselves to professions and mercantile pursuits. The superintendent of education for the province of Ontario, where the public school system is probably as thorough, complete, and satisfactory as in other part of the continent, shows that, so far as that province is concerned, the system has not had the supposed result. Of the pupils who left the high schools last year, only 336 matriculated into the universities, and 1,161 went into mercantile life, while 9,506 returned to the farms. In the face of these figures there is not much room for the belief, that the schools tend to push pupils into pursuits that are already overcrowded.—*Halifax Daily Echo*.

#### The University of Paris.

What is usually called "The University of Paris," but what is in reality only an aggregation of several different faculties, is, without doubt, the largest educational institution in the world. Last year it had a scholastic population of 10,174, which is, however, a decrease of about 200 compared with the preceding year. Of this number 1,086 were foreigners, representing thirty-five different countries. Russia sent the largest contingent, namely, 292. Next in order come North America with 167; but as Mexico is separately reported this must refer chiefly to the United States. There were 149 Romanians, 93 Turks, and 63 Englishmen. The other lands represented fall below fifty, six having but a single representative. The great majority of foreigners—759—was in the school of medicine. The entire number of female students was 152. Of this number 123 were in the medical department; 92 were Russians, 17 French, 7 English, and but one American. In the department of science there were 19 ladies, nine of them Russians, and six French. One of the latter received the doctor's degree with the highest possible honors. The faculty of Protestant theology report 29 regular

students. Strangely enough this faculty is supported by the state, while the Catholic faculties were disestablished in 1885. The salaries of the French professors vary from 15,000 francs in Paris to 6,000 in the provincial cities. France has within the last few years undergone a most remarkable educational revival in all departments. It is said to be more heavily burdened with debt than any other European country, yet its appropriations for the cause of education have been increasingly liberal from year to year, almost from the time of the establishment of the present republic.

#### A Dog's Sagacity.

"One summer an ordinance was passed by the village trustees requiring all dogs to be muzzled. Pedro was, instead, fastened with a peculiarly made chain which had once done service in a suction pump. It was not heavy, but one would never forget the odd shape of its links. A hole was cut through the side of a workshop, and the chain was fastened with a strong staple to a joist which was exposed when the hole was cut. Pedro was a very unwilling prisoner for a week, when one morning he was discovered lying on the doorstep—collar, chain, and staple gone. He had gnawed the staple out, and had pulled the collar off over his head. None of the fastenings could be found, high or low. Two years afterward the chain and collar were dug out of a pile of ashes in the far back end of the lot. The diggers knew that Pedro had buried them. They whistled, and he soon came bounding to the spot, expecting fun of some kind. The diggers pointed to the chain. Pedro looked down at it, smelled of it, dropped his tail between his legs, cowered, and whined piteously for mercy, knowing his guilt was found out at last."—*Buffalo Express*.

The annual report of Superintendent Nicholson, of Prince Edward Island gives the total number of school districts at the end of 1890 as 539, and the total number of teachers employed 529, of whom 276 were men and 253 women. P. E. Island is the only province in which the male outnumber the female teachers. The number of pupils enrolled was 22,530 and the percentage of attendance 55.43. The amount paid by the government for education the past year was \$131,926.64. The amount raised by local taxation was 37,223. The grand total paid by the government and district for public education last year was \$150,850. The superintendent dwells on the importance of the study of agriculture being encouraged in the schools.

The line which divides trees from shrubs is a purely arbitrary one, and an attempt to separate them is often unsatisfactory. A division based on habit rather than on size seems upon the whole, more easily applied than any other and therefore less objectionable. So for the purpose of this work, I have considered as trees all woody plants which grow up from the ground with a single stem, excluding all such as habitually branch at the ground into a number of stems, whatever size or height they may attain.—*Dr. Sargent, Cambridge, Mass.*

During Dr. David Allison's previous presidency at Mt. Allison he had occasion to lecture the students on some breach of discipline, and chose before prayers as the time for doing so. But the effect produced was largely discounted when, opening the Bible at random, he read: "Lord, remember David and all his afflictions."—*Methodist.*

#### EDUCATIONAL OPINION.

This problem of how to get the best teachers is too large to be discussed here, but it must be solved if the school is to serve the state efficiently. That every future citizen shall be taught to read is much. That he shall be taught to observe and think is more. But that he should learn to love, admire and revere that which is worthy, and hate that which is unworthy, is most of all.—*Principal Grant at Toronto.*

It would be a wise provision if the holidays were extended so that the first two weeks in August were included in vacation. These are generally the hottest weeks of the summer, and as a general thing pupils do not attend the school in force, only a few stragglers getting in. A new feature has been added in some districts in respect to the salary of teachers. By discharging a teacher at the end of June and hiring another at the beginning of August, the four weeks pay during vacation is saved. There are trustees who think this is something to be proud of in their way of financing. The great majority of schools in this county begin this term with new teachers, which is neither to the benefit of the pupils nor the district.—*Fredericton Gleaner.*

I do not know that an effect of summer migration on the country schools is often observable. Exceptional instances exist, and cases may be numerous. The increasing disposition of families to prolong their stay in the country beyond the limits of the city school vacation suggests that the time may not be far distant when those who control the village schools

will adjust the terms and studies so as to enable children from the city to continue work during a portion of their stay. The similarity of courses in all graded schools favors this transfer, and by painstaking a fair adjustment might be reached. This would take away from many city families a chief objection to prolonging their sojourn, and would result in a positive benefit to the inhabitants. Lacking some such arrangement, the migratory habit must soon lead to the establishment of private schools in some districts to accommodate temporary residents.—*Edward Hungerford in August Century.*

#### TOPICS OF INTEREST.

An expedition under the auspices of Bowdoin College is to start this summer to explore Labrador. There is said to be a fall on the Grand River over 2,000 feet high. This is probably erroneous. To what government is Labrador attached? What are its products?

The population of London, according to the census of 1891, is 5,663,330. Its population is thus larger than that of the whole Dominion of Canada.

Canada has the advantage over every other country in North America in furnishing the shortest route to Europe. From New York to London is 3,050 miles; from Halifax to London is 2,700 miles. A company has been incorporated to build a railway across Newfoundland to connect by steam ferry with Cape Breton and from thence connecting with continental railways. By this route over two days will be saved as compared with the New York route. The St. Lawrence route is already preferable for perishable goods, and Montreal is becoming the distributing point for Mediterranean fruits.

Very great comfort is extracted from the fact (especially by nations whose navies are weak) that two Chilean iron-clads were sunk by torpedos. The torpedo used in this fight was that known as the *Whitehead*. It is about fourteen feet long and is propelled by an apparatus in its stern. In the bow is a charge of dynamite. The great danger of such a missile is that its course is apt to be erratic and it is quite as liable to return to injure friends as enemies. What is dynamite? What is meant by the term iron-clad?

Fears are expressed in the United States lest the government should run short of money. The last congress was a very extravagant one and used about a billion of money. The pension liabilities were also greatly added to. Who pays the taxes? How are they collected? What is the Canadian revenue? Why does the United States pay pensions?

The ruler of Spain is Alfonso XIII., (aged about four years) with his mother as regent; Portugal, Charles I.; Russia, Alexander III.; Austria, Francis Joseph I.; France, President Carnot; Italy, Humbert I.; Germany, William III.; Great Britain, Victoria—also Empress of India; Denmark, Christian XI.; Belgium, Leopold II.; Netherlands, Princess Wilhelmina, with her mother as regent; Greece, George I.; Sweden and Norway, Oscar II.

A new era will open for Australia when the transcontinental railroad is finished. In the south 698 miles of the road are already completed between the port of Adelaide and Angle Port. In the north the railroad has been completed from Port Driven south as far as Pine Creek. The distance yet to be covered is 1,098 miles, of which, it is thought, nearly half will be built this year. Most of the country through which the road passes can obtain plenty of water by means of artesian wells.

#### SCHOOL AND COLLEGE

The following teachers have passed the *Elementary* examination since our last announcement: Miss Laura Howell, Dartmouth, Halifax; Miss Catherine Major, Dartmouth, Halifax; Herbert M. Greenough, Petpeswick, Halifax; Clarence H. Greenough, Petpeswick, Halifax; Miss Nellie Graham Fulton, Spry Bay, Halifax; Miss Mabel Fulton, Sheet Harbor, Halifax; Miss Jessie Fulton, Upper Stewiacke, Colchester.

The N. B. Normal School re-opens on the 1st of September. Prin. Mullen has received over 260 applications already.

Mr. McKnight, of the N. B. University, has taken charge of the Superior School, Keswick Ridge, with Miss Carrie Jewett as assistant.

Mr. Mason R. Benn has assumed the principalship of the Edmundston, N. B., Superior School.

Miss Mary Kingsley Tibbits, B. A., has been appointed principal of the Gagetown, N. B., Grammar School, the first instance in New Brunswick of a lady being appointed to the principalship of a grammar school. Miss Tibbits is a young lady of superior education and ability, and the REVIEW wishes her every success.

The new high school building at St. Martins is rapidly approaching completion and will be in readiness at the beginning of the present term. It is said to be a very handsome building.

Mr. N. W. Brown, A. B., formerly principal of the Milltown schools, has been appointed to the Petitcodiac Superior School.

The Superior School at Harvey Station, N. B., has been opened under the care of Mr. David Gefford and Miss Minnie Glendenning, both new teachers.

Mt. Allison University opens Sept. 24th under its new president, Dr. Allison. The Ladies' College and Conservatory of Music, and the Ladies' Academy open on the 3rd September.

F. M. Cowperthwaite, A. B., late grammar school master of Bathurst, has just been appointed to the principalship of the Central Street School, Vancouver, B. C., and John McMillan, A. B., formerly of the Superior School, River Charlo, Restigouche County, has been appointed first

assistant in the East End School of the same town. Thomas McGarrigle, A. B., of Fredericton, has a fine scholastic position also in Vancouver.

Lately quite an addition has been made to the school library at Moore's Mills, N. B., consisting of over thirty volumes of standard works.

Through the representations of Mr. Wallace Broad, one of the school trustees of this town, the public schools here have been presented with a fine collection of rocks and minerals by the Geological Survey Department at Ottawa. —*St. Stephen Courier.*

#### PERSONAL.

Mr. Rupert Hanson, A. B., formerly of Petitcodiac, it is understood, has been appointed to the principalship of the Sussex Grammar School, made vacant by the resignation of Mr. S. F. McLeod.

Everyone acquainted with Mr. S. F. McLeod, late principal of the Sussex Grammar School, will wish him success in his new position—that of agent and business manager in St. John of the Confederation Life Insurance Company.

Miss Annie McLean, of Kent Co., has been appointed by the St. Stephen Board to fill the vacancy caused by the resignation of Miss Rideout. Miss Alice Robinson, we are glad to see, resumes her work in the Marks Street School.

#### QUESTION DEPARTMENT.

D. Will you kindly name the plants herewith sent? Both are orchids. No. 1 is *Calopogon pulchellus*; No. 2, *Pogonia ophioglossoides*.

READER.—Will you kindly inform me through the next issue of the REVIEW regarding the following questions?

1. As I wish to make a collection of butterflies and different insects, describe process of depriving them of life and how to preserve them afterwards—if arsenic is employed, etc.

2. About the first week of June, I noticed birds unknown to me, one was of a red hue about the size of a greybird. Its mate was grey or of a brownish grey hue. The red one was a beautiful songster. Please name.

1. Catch butterflies with an insect net. Take them by the thorax so as not to injure the wings, and if you have a small vial of chloroform or benzine, put a drop or two on its body, if you have no chemical; compress the thorax rapidly and firmly. The nerve ganglia of the insect are mostly situated in the thoracic region, so that compression of the thorax is the nearest equivalent of concussion of the brain in vertebrates. Don't kill by the cruel method of sticking a pin through the body, as the insect may live for days

before death may ensure from such treatment. Then spread the butterfly's wings out on a drying-board in the direction you wish to have them remain. Pin them in that position until they are immovable. Then drive a long pin two thirds through the body and stick the point of the pin in the soft bottom of a dust-proof shallow box, containing camphor or benzine to ward of the attacks of small insects on your specimen. For beetles, use chloroform, benzine, or other suitable poison to kill, and pin through one of the wing covers in preference to the centre of the body. They are not so troublesome to prepare or preserve as the butterflies.

2. *Carpodacus purpureus* (*Purple Finch*), or, as it is generally called in English, the *Crimson Finch*.

Q. The last question in analysis of Sentences in last REVIEW may be analyzed as follows:

COMPOUND SENTENCE. — A Prin. "It," subj.; "may," verb; "seem a little extraordinary," subj. comp.

1a<sup>1</sup> Noun sub. in apposition to "it." "This prince," subj.; "acquired," verb; "the regard," obj.; "of his subjects," enl. of obj.; "not only," extens. of manner, degree; "notwithstanding his cruelty," etc., extens. cause, concession; "that," conn.

B. Prin.. ("he"), subj.; "was," verb; "the object," etc., obj.; "of their hatred," enl. of obj.; "never," extens. of time; "but," conn.

C. Prin. "he," subj.; "seems," verb; "to have possessed, even in some degree," etc., subj. com.

### BOOK REVIEWS.

Tennyson's *ENOCH ARDEN*, with Introduction and Notes by W. T. Webb, M. A. Price 2s. London: MacMillan & Co., and New York. A neatly printed and valuable contribution to Tennysonian literature. It contains a biographical sketch of Tennyson as a man and poet, with the characteristics of his verse, and a review of *Enoch Arden*, followed by the text and copious notes thereon.

*ANECDOTAL LIFE OF SIR JOHN A. MACDONALD*, by E. B. Biggar. Price 50 cents. John Lovell & Son, publishers, Montreal. This work should have a large circulation because the sketches and anecdotes are interwoven with Canadian political life for the past half century; and the book is entertaining on its merits.

*MCGILL UNIVERSITY CALENDAR*. — The calendar for this well-known institution for 1891-92 has been received. It is full of interesting matter.

*DUTY, A BOOK FOR SCHOOLS*, by Julius H. Seelye, D. D., LL.D., late President of Amherst College. Price 30 cents. Publishers: Ginn & Co., Boston. This little work of sixty pages contains the *points* of plain, clear talks to children, and is suitable for teachers of early grades.

*A PRIMARY WORD BOOK* by Sarah E. Buckbee, New York, embracing thorough drills in articulation and all the difficulties of spelling and sound. Price 30 cents. D. C. Heath & Co., publishers, Boston. This is a collection of what has proved, according to the author, a successful experience of many years in teaching the elements of language to primary children. The exercises are simple, and arranged on scientific principles.

*AMERICAN LITERATURE*: An elementary text-book for use in High Schools and Academies, by Julian Hawthorne and Leonard Lemmon. Price \$1.25. Publishers: D. C. Heath & Co., Boston. This admirable compendium of over 300 pages gives sketches and portraits of over 200 men of letters of the United States, dating from Capt. John Smith, annalist, of the colonial period, down to the writers of to-day. With the more important writers it deals very fully, gives large, full page portraits and biographical sketches, with estimates of their literary powers and selections from their writings. It cannot fail to render valuable service to students of United States literature.

*GRAY'S POEMS*, with introduction and notes by John Bradshaw, LL. D. Price 1s. 9d. MacMillan & Co., publishers, London and New York. Students of literature will welcome this excellent little volume, in which are published, with copious notes, the chief poems of Thomas Gray, including the "Elegy."

### Current Periodicals.

The *Century* for August contains portraits of the Emperor of Germany and the Empress his wife, with an interesting sketch of the young ruler who wields the sceptre of that Empire. . . . In the *New England Magazine* for August a Harvard senior makes a strong plea for the public school as a remedy for American phillistinism or narrowness. . . . *St. Nicholas* for August, the midsummer number, contains a variety of interesting reading matter suitable for vacation. . . . *Garden and Forest*, New York, contains, in its issue of August 5th, the following among other excellent articles: An Object Lesson in Roadbuilding, New Hampshire Scenery (with figure), Changes which Trees Create, A Forest under the Equator. . . . *Canada*, published by Matthew Richey Knight, Benton, N. B., contains for July a series of scholarly contributions. This periodical is gaining in influence and merit. . . . *Littell's Living Age* for August 1st and 8th contain Prince Napoleon, Influenza, by Sir Morrell McKenzie, M. D., The Locust Plague in Algeria, and Italy and France, The Gurkhas: a Fighting Race, Richard de la Pole, "White Rose," A Night in a Hay-Stack, and Ways and Whims of Fresh-Water Fishes, John Bright's School, and other articles and poetry. For fifty-two numbers of sixty-four pages each (or more than 3,300 pages a year) the subscription price (\$8) is low; while for \$10.50 the publishers offer to send any one of the American \$4.00 monthlies or weeklies with *The Living Age* for a year, both postpaid. Littell & Co., Boston, are the publishers. . . . The August *Popular Science Monthly* deserves special notice. It opens with one of Dr. Andrew D. White's able chapters on the Warfare of Science Entitled from Fetich to Hygiene; the Value of Statistics is discussed by Hon. Carroll D. Wright; there are articles by Gladstone and Huxley, and in the Practical Outcome of Science, by Dr. W. H. Smith, some striking instances are given of apparently useless researches which have conferred great material benefits.

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FACULTY OF APPLIED SCIENCE—Civil Engineering, Mechanical Engineering,  
Mining Engineering, Electrical Engineering and Practical Chemistry—(September 15).

FACULTY OF MEDICINE—(October 1st).

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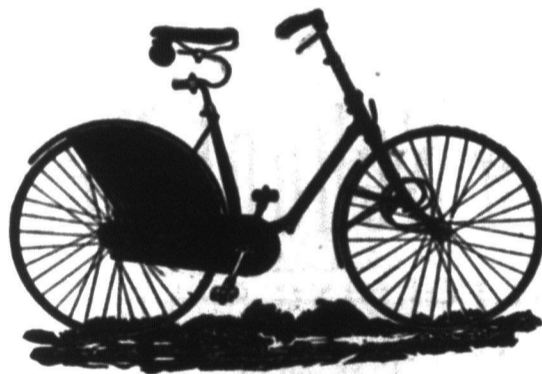
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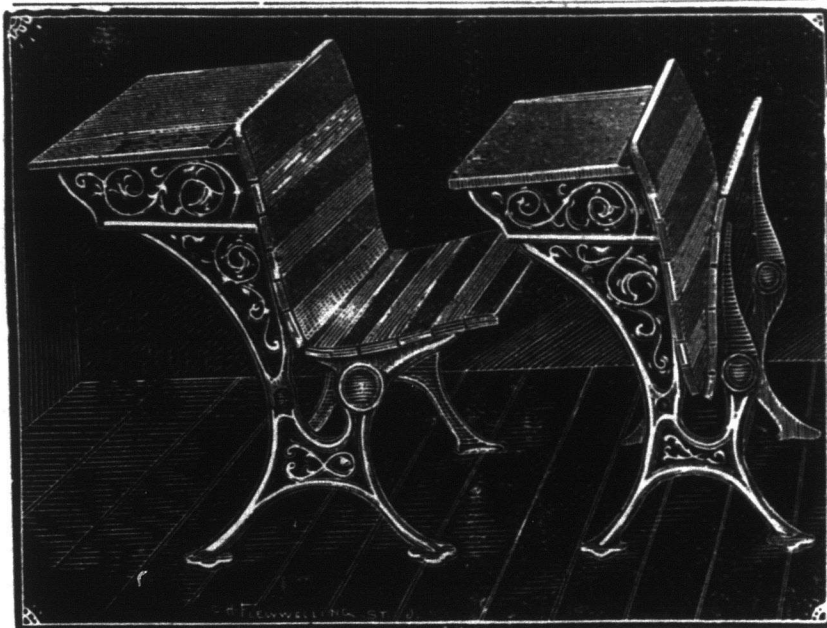
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