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Vol. I. No. 3.

MARCH, 1881.

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THE  
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OF THE  
PROVINCE OF QUEBEC,

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THE BOARD OF EDUCATION, AND CONTAINING THE OFFICIAL  
ANNOUNCEMENTS OF THE BOARD.

EDITED BY R. W. BOODLE.

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MONTREAL:  
GAZETTE PRINTING COMPANY.

1881.

# CANADA LIFE ASSURANCE COMPANY.

ESTABLISHED 1847.

HEAD OFFICE, HAMILTON, ONT.

Capital and Funds, OVER 5,000,000 DOLLARS.

Annual Income about \$850,000.

MANAGING DIRECTOR AND PRESIDENT:

A. G. RAMSAY.

SECRETARY:

R. HILLS.

SUPERINTENDENT OF AGENCIES:

J. W. MARLING.

## ABSTRACT.

1. Assets 30th April, 1880.....	\$4,297,852
2. Income for the year ending 30th April, 1880.....	835,856
3. Income (included in above) for the year from interest and profit on sale of Debentures.....	243,357
4. Claims by death during the year.....	192,948
5. Do. as estimated and provided for by the Company's tables.....	296,878
6. Number of Policies issued during the year—2167, amounting to.....	3,965,062
7. New premiums on above.....	111,382
8. Proposals declined by Directors—171—for.....	291,200
9. Policies in force 30th April, 1880, 12,586, upon 10,540 lives.	
10. Amount assured thereby.....	21,547,759
11. Death claims fell short of expectation by.....	103,930
12. Interest revenue exceeded Death claims by.....	50,309

## 1880 versus 1850.

The Assurances now (1880) in force are **twenty-five times** greater, the Annual Revenue **thirty times**, and the Total Funds **one hundred times** greater than in 1850.

New business last year exceeded that of the six other Canadian Companies combined—that of the five Licensed American Companies combined, and was more than double that of eleven British Companies combined.

The CANADA LIFE carries over a fourth of all the existing business in Canada.

The bonus additions to Life Policies during the past 15 years have added \$575 to every \$1000 of original assurance and this now stands at \$1375 and will be further increased at each future division of profits.

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B. POWNALL,

*Sec. for Province of Quebec.*

P. LA FERRIERE,

*Inspector of Agencies.*

JAMES AKIN, *Special City Agent.*

AGENCIES THROUGHOUT THE PROVINCE.

THE  
**EDUCATIONAL RECORD**  
 OF THE  
**PROVINCE OF QUEBEC.**

No. 3.

MARCH, 1881.

VOL. I.

ANNUAL REPORT OF THE MCGILL UNIVERSITY,  
 MONTREAL, FOR THE YEAR 1880.

*(Printed by permission of His Excellency the Governor-General, Visitor of  
 the University.)*

*To His Excellency the Most Noble the Marquis of Lorne, Governor-  
 General of Canada :—*

MAY IT PLEASE YOUR EXCELLENCY :—

The Governors, Principal and Fellows of McGill University beg leave to present to Your Excellency, as Visitor on behalf of the Crown, the following Report on the condition and progress of the University, and of its colleges and schools, during the year ending December, 1880, beginning as usual with the Statistics of the past and present educational years.

The number of Students in McGill College in the present session is as follows :

Students in Law .....	69
Students in Medicine.....	163
Students in Arts—Undergraduates.....	93
"    "    —Partial and Occasional .....	42
Students in Applied Science.....	30
Total .....	397

or, deducting students entered in more than one Faculty, in all 393.

The students in Morrin College, Quebec, are 10 in the Undergraduate course, and 32 Occasional.

The Students in St. Francis College, Richmond, are 5 in the Undergraduate course, and 4 Occasional.

The teachers in training in the McGill Normal School are 125. The pupils in the Model School of the Normal School are 340.

The total number of persons thus receiving educational benefits from the University is 909.

Of the students and teachers in training in McGill College and the Normal School, about 310 are persons not resident in Montreal, but attracted to it by the educational advantages offered by the University and its affiliated institutions.

At the meetings of Convocation, held in March and May last, the following degrees were conferred:—

Doctors of Laws, in Course <sup>1</sup> .....	3
Doctors of Medicine .....	30
Masters of Arts { In Course.....	4
{ Ad Eundem.....	1
Master of Engineering .....	1
Bachelors of Civil Law.....	25
Bachelors of Arts.....	23
Bachelors of Applied Science.....	4
	—
	91

At the close of the session, the following University Gold Medals were awarded to successful candidates:—The Elizabeth Torrance medal, in Law; the Holmes medal, and the Sutherland medal for Chemistry, in Medicine; the Henry Chapman medal for Classics, the Anne Molson medal for Mathematics and Physical Science, the Prince of Wales medal for Mental and Moral Philosophy, the Shakespeare medal for English Literature, and the Logan medal for Geology and Natural Science.

The Lorne Silver Medal, the gift of Your Excellency, was awarded to the candidate standing highest in the examinations for the degree of Bachelor of Applied Science. The Lorne Gold Medal, assigned to an honour course in Modern Languages and History, cannot be awarded until the examinations at the close of the present session.

The income of the Hannah Willard Lyman Endowment Fund was, as usual, given in prizes in the examinations of the Ladies' Educational Association of Montreal.

At the close of the session of the McGill Normal School, in July, the following diplomas were granted by the Hon. the Superintendent of Education :—

For Academies.....	5
For Model Schools.....	29
For Elementary Schools.....	38
	—
	72

The Silver Medal presented by Your Excellency to the Normal School was awarded to the student taking the highest place in the Classical and Mathematical subjects, and passing creditably in the other subjects of study.

In the school examinations of May last, thirty-one candidates were successful; of whom twenty-four passed as Associates in Arts, and seven for the Junior Certificate. Eleven of the successful candidates were young women, and the candidates were sent up from six schools, three of them in the city of Montreal.

One candidate passed in the higher examinations for women, and was the first to receive the diploma of Senior Associate in Arts.

Nine Scholarships and Exhibitions, of the value of \$100 to \$125, were awarded in the examinations held in September last. Six were the gift of W. C. McDonald, Esq., one of Mrs. Redpath of Terrace Bank, one of Charles Alexander, Esq., one of the Board of Governors, and one of the Principal.

The Scott Exhibition, the gift of the Caledonian Society of Montreal, and a special prize, given by the Dean, were awarded in the Faculty of Applied Science.

In the past session we have had to lament the removal by death of three members of the Board of Governors of the University. The Honourable Luther Holton had been a member of the Board of Governors only for a few years, and those other public duties in the discharge of which he earned so high a reputation, did not permit him to devote much time to educational affairs, but he was a wise and helpful friend whose absence will be felt. Andrew Robertson, Esq., M.A., Q.C., was one of the original Governors of the University under the new charter, and for nearly thirty years was regularly present at its meetings, and was always ready to attend to its business and to give his kindly aid and encouragement in any case of difficulty. The Honourable Christopher

Dunkin, M.A., D.C.L., was, like Mr. Robertson, a member of the original Board, and he was in many respects one of its most eminent members. More especially by his energy and business capacity and his intimate acquaintance with the details of university organization, he was fitted in a remarkable manner for the preparation of the statutes and regulations of the University, and for guiding it safely through the difficulties attending its earlier struggles, and the arrangement of its methods of working. The earnestness and enthusiasm with which he devoted both time and labour to these objects, and the benefits which he thus conferred on the University, entitle him to lasting remembrance and gratitude as one of the greatest benefactors of Canadian education in our time.

In June last, the Honourable Robert Mackay, the Honourable J. J. C. Abbott, D.C.L., Q.C., and R. A. Ramsay, M.A., B.C.L., were appointed members of the Board.

The office of Dean of the Faculty of Law, vacant by the appointment of Dr. Abbott as Governor, has been filled by the appointment of William H. Kerr, D.C.L., Q.C.

In the Faculty of Law a new branch of study has been introduced by the appointment of Lewis A. Hart, M.A., B.C.L., as Lecturer on Notarial Procedure.

In the Faculty of Medicine the chairs of Practical and Theoretical Chemistry have been consolidated by the appointment of Gilbert P. Girdwood, M.D., to the latter chair.

In the Faculty of Applied Science, C. H. McLeod, M.A., who has for several years efficiently occupied the position of Lecturer in that Faculty, has been appointed Professor of Descriptive Geometry.

The number of students has slightly diminished, as compared with last year; but our last graduating class was the largest the University has yet sent forth. The growth of the University in the future must probably depend to a great degree on the increase of its endowments and scholarships. Its work has now reached to the limit of its income; and its present position with reference to number of students is that which arises from the conditions of competition with other institutions of learning in Canada and elsewhere, and which it can now outstrip only by the addition of new appliances and means of education and by the augmentation of its revenues. That such aids will be furnished

we need not doubt, and in illustration of this we have much pleasure in alluding to two very important benefactions.

The foundation of the Peter Redpath Museum is in amount a benefaction ranking with that of Mr. William Molson in 1861, and next in value to the original gift of Mr. McGill. The building will not only be architecturally and in its interior arrangements the finest museum in the Dominion; but it will possess all the appliances necessary to make it an institution of the first class for the teaching of natural science. It will serve as a compensation for the removal of the museum of the Geological Survey, and will furnish a model for imitation in providing other departments of the work of the University with the accommodation which they need. It will also afford space in the original college buildings for the adequate expansion of other portions of our work. We had the honour of inviting Your Excellency to lay the corner-stone of the building in September last. Since that time much progress has been made in its erection, and the collections to occupy it are being gathered and arranged; so that we hope it may be opened for educational uses in the autumn of 1882.

Another important gift is that of \$30,000 to form an endowment for the William Scott chair of Civil Engineering, and of \$2,000 to endow a Barbara Scott scholarship in Classics, left by the last will of the late Miss Barbara Scott of this city. The first of these donations will place the most important professorship in the Faculty of Applied Science on a secure foundation, and the second is a valuable addition to our means for assisting deserving students.

The Library and Museum have received a number of gifts during the year which have from time to time been duly acknowledged. The most important to the library are the large additions to the Historical department, made by Mr. Peter Redpath, and the handsome donations made by the McGill College Book Club. The principal donations to the museum have been a collection of Canadian fishes from Dr. T. Sterry Hunt, F.R.S., a number of Canadian fossils from the Director of the Geological Survey, and specimens of ores and minerals from the Orford Nickel and Copper Company. There have, however, been a large number of important specimens and valuable collections obtained by gift, exchange and purchase.



In the report presented to the Minister of Marine and Fisheries by the Superintendent of the Observatory, details are given as to the meteorological work in connection with the Dominion weather service, and the arrangements made for supplying correct time to the city and shipping. Mention is also made of labour expended in collecting and arranging the observations of past years, and in determining the precise latitude and longitude of the Observatory. Both the Blackman telescope and the meteorological instruments have been used in the education of students in astronomy and meteorological observation.

We regret to have to state that the Government of Quebec has felt it necessary to reduce the grants to the Provincial Normal Schools. In the case of the McGill Normal School, as this has no pecuniary resources other than its Government grant, and the University is unable out of its resources to give it additional assistance, there is reason to fear that some injury to its usefulness may result, a consequence greatly to be deplored, as it is certain that this institution has, since its establishment, been the most effective agent in elevating the general standard of education in the Province. Earnest representations on this subject have been made both by the Protestant Committee of the Council of Public Instruction and by this Corporation, and statements have been prepared showing the large number of students trained in the institution, and that almost without exception they actually enter on and prosecute the educational work for which they have been trained. We trust that these representations, with the improved condition of the provincial finances, may be the means of averting the serious injury which would result to education from any diminution of the support of the Normal School, at a time when when increased aid is necessary in order to enable it to meet the growing demands of our school system.

We have also to regret that the representations of our last Report in favour of the recognition of the degree of B.A., as entitling to admission to the study of learned professions, and in favour of a uniform standard of examination for these professions, have not yet been acted on by the Legislature of Quebec, though important improvements in these respects have been carried out in Ontario. But we trust that as these matters have again been urged upon the attention of Government, by the Council of Public Instruction and by the Provincial Association

of Teachers, the remedy of the evils complained of will not be long delayed.

McGill University has for many years recognized the right of its graduates to a representation in its Corporation, which is its governing body in all educational matters. But it has been felt that this representation required to be made more effectual for its purpose. In the past year accordingly statutes have been enacted by the Board of Governors giving to non-resident graduates the power of voting by voting-papers, and otherwise placing this representation in a more satisfactory position.

Regulations improving the conditions of obtaining the higher degrees of the University will be in force in the course of the present year. In connection with this we would direct attention to the fact that in the Faculty of Arts it is possible for those who have obtained the Degree of Bachelor to avail themselves of the Honour Courses as Graduate Courses of Study, by means of which they might secure a higher training in important specialties than that obtained in the undergraduate course, and might also prepare themselves for the Master's Degree.

The Session of 1882-3 will be the fiftieth of the existence of this University, and it would seem appropriate to mark the occasion by some fitting celebration. A preliminary step was taken by the banquet given by the Principal, to more than three hundred graduates and benefactors, at the close of last session. The graduates have already moved in this matter by beginning a subscription for important University objects. It is hoped that the movement will be followed up, and that our graduates and friends will signalise our fiftieth year by such substantial tokens of their affection and confidence as may give to the University a new impetus at the beginning of its second half century.

(Signed on behalf of the Corporation.)

CHARLES D. DAY, LL.D.,

*Chancellor.*

## THE STUDY OF LATIN.

(Continued.)

I shall now jot down a number of rules or rather formulated remarks for the consideration of any who may be interested in this subject. I claim for them no originality, to many they will not even be fresh. It will be sufficient if they can be said to relieve at all the mechanical drudgery of work and impart a more living interest to the study of a dead language.

(1.) Let your class start by committing to memory the inflections of the 1st. and 2nd. declensions and then decline rapidly a number of nouns according to each.

(2.) Let them then take the present indicative of any regular verb of the first conjugation, and at once compose short sentences consisting of two, or at most, three words, *e. g.*, *Agricola amat hortos.*

(3.) An adjective may now be added, declined according to the noun.

(4.) Go on in this way gradually enlarging your vocabulary and making with it simple and appropriate sentences till the declensions of nouns and adjectives and the primary tenses of the indicative mood of regular verbs have been committed to memory.

(5.) When this stage of progress has been reached, the main parts of grammar must be constantly learnt; but each lesson should at once be applied to the formation of sentences and thus transformed into a living possession.

(6.) Anomalies are best learned as they occur in practice, except such as are of very frequent occurrence, *e. g.*, the conjugation of the verb "esse."

(7.) At this stage it will be well to interpolate a word of caution, without due attention to which no teaching can be successful. Never advance without making the ground behind you absolutely your own. This, I believe, is the strongest temptation to which a faithful teacher is exposed, and the most difficult to counteract. He is, probably, hampered by some official curriculum laying down the amount of work he is expected to get through during the year, and the state of proficiency his class must reach: and in order to fulfil the formal requirements of such a code, he sacrifices his own individuality, and turns himself into a machine for

extracting by certain mechanical processes a maximum number of passes out of the class; thus assuming the grave responsibility of turning out a number of intellectual quacks.

(8.) The class is now ready to pass to the reading of some Latin author. Make a thoughtful choice of a text-book, one that will suit the intellectual appetite of the scholars. Let the Latin be easy, the construction simple, the subject matter interesting, and, if possible, already familiar from an English version, such a book *e. g.*, as *Æsop's fables*. As you read, pass by no new construction till the pupil can fully explain it, and endeavour always to get at the principle of the rule, whether belonging to universal or special grammar. Trace back metaphors to their source, showing how they generally owe their birth to the characteristic traits and favourite occupations of the people. Note and underscore all idioms which cannot be literally translated, let them be rendered into idiomatic English and after a few days translated back into the original. This last remark brings me to a most important part of my subject.

(9.) The rendering into Latin of sentences which are not intended to be and cannot be literally translated—this is the great test of a scholar's knowledge, of his real mastery over the language he is studying—it is the passage from the simple to the compound sentence. To understand the various ways in which subordinate clauses can be used in Latin is a severe logical and linguistic discipline. It requires the student to take his own language to pieces, to analyse the thought, to grasp the logical relation of the parts to the whole, to forge them into a new shape in which these logical relations are accurately and scientifically expressed. The first step then towards a proper rendering into Latin must be a careful analysis of the English. It is this that makes the study of Latin so valuable. A boy can translate into a modern language almost without thought; but not a page of English can be found which does not bristle with points which are totally non-Latin in form, and can only be made Latin by first extracting the kernel of the thought and then translating it into Latin, the vague being everywhere replaced by the exact, the abstract by the concrete, the indefinite by the positive. Take such a sentence as "Seeing is believing"; the unregenerate scholar is bound to translate it at first sight by "*videns est credens.*" What light he has gained, when he has learned the absurdity of

such a sentence and can at once resolve it into its logical equivalents,—*Videre est credere—Qui vident, credunt—Nemo credere potest, nisi videt—Quum video, tum credo—Quae video, ea credo, etc.* Again, if you select some little English particle as, “to,” “for,” “that,” how vague it is, what a number of different ideas it may express, each requiring a different Latin rendering, *e. g.*

1. He gave the letter to the Queen (*dat. case*).
2. I returned to the city (*ad with acc.*).
3. We eat to live (*ut vivamus*).
4. He deserves to be loved (*dignus est qui ametur*).
5. Things contrary to each other (*inter se contraria*).
6. It turned out to my satisfaction (*mihī ex sententia*).
7. I left nothing undone to appease him (*quin pacarem.*).
8. I find scarcely anything to censure (*quod reprehendam*).
9. To the great danger of the State (*cum summo reipublicae periculo*).

Or again, how vastly more flexible and significant is the Latin relative than the English, what a prominent part it plays in the connection of sentences and in the construction of dependent clauses, what a variety of shades of meaning it may be made to express. There is about it a delicate suggestiveness and exquisite subtlety that fully bears out the criticism, that a classical language appeals rather to the intellect and imagination than to the mere understanding. In order, therefore, to teach boys to make fine logical distinctions and to give an idiomatic rather than a literal rendering of a passage from English to Latin, the most feasible plan would appear to be to train them to use the dictionary as little as possible, and to rely on their own vocabulary, however limited, endeavouring to turn about the sentences till they come within range of what they already know.

Having now arrayed his thought in a classical garb, the student perhaps imagines that his difficulties are at an end. But the material of the dress may be rich, and yet the dress itself so ill-fitting, that the goddess presents but a slovenly and tawdry appearance after all. “*Vera incessu patuit dea.*” The gait of the disguised goddess betrayed her divinity. The want of it will as surely stamp the laboured imitation as an exotic still. This brings me to my last point—

(10.) The order and arrangement of words in a Latin sentence. In English the words of a sentence must be arranged in their

grammatical order. Any deviation from this rule either gives rise to ambiguous expressions or totally obscures the meaning. In Latin the construction of words is easily recognized by their inflections and, therefore, the words are arranged in their metaphysical order. This power of order is *the* great power which an inflectional language possesses over an uninflected, and the study of it helps us more than anything else to distinguish between the essence of a thought and its accidents. Take the Latin sentence—*Carthagini nunc Hannibal vineas turresque admovet*—and what does the order of the words teach us? We know at a glance that “*Carthagini*” from its position is emphatic, and therefore, that the idea which the writer (or speaker) wishes to bring forward is, that it is against Carthage in contradistinction to Rome that Hannibal now rears his engines. Transmute into English the words in their grammatical order, and so lax does the sentence become in that language, that by varying the emphasis we can derive out of the five words no less than five different interpretations. Since then the order of the words is essential in order to express thought forcibly and elegantly, the use of a correct order must be taught and insisted upon. Of course correct order is a very delicate thing and dawns late on the intelligence, but some simple rules for the arrangement of a sentence may be taught from the outset, *e. g.*:—That the subject stands first, then the oblique cases, and the verb closes the proposition; that the first and last words are the most emphatic; that an adjective generally follows its noun, that the subjective genitive precedes and the objective genitive generally follows the noun, and that any of these rules may be modified by the principles of euphony and emphasis, and the style of composition, whether historical, didactic, rhetorical, or epistolary.

Still, after all has been said, time and practice remain the two great helps of the student. Familiarity with a language can only be attained by constant reading and constant conversation. By enlisting in his service the eye, the ear, the tongue, and the understanding at the same time, the scholar will so familiarise himself with the language that its form and spirit will gradually soak, as it were, into his mind and sink as deeply as Oliver Wendell Holmes represents them as having done in the case of his Latin tutor, who had read so much of that language that his English had half turned into it, as witness the following Eclogue,

which he produced upon Intra-mural Aestivation, or town life in summer. Those who have been through college will understand it without a dictionary.

In candent ire the solar splendor flames,  
The foles, languescent, pend from arid rames ;  
His humid front the cive, anhelng, wipes,  
And dreams of erring on ventiferous ripes.

Me wretched ! Let me curr to quercine shades !  
Effund your albid hausts, lactiferous maids !  
O, might I vole to some unbrageous clump—  
Depart—be off—excede—evade—erump !

E. W. ARTHY.

## SCHOOL HYGIENE.

(Continued.)

Impaired eyesight often seems to result from school-work. This impairment consists most commonly in the development of near-sight. A certain percentage of all human beings are born with eyes that are not the perfectly adjusted optical instruments that most of us possess. The proportion of these is largest in studious races. The children of barbarians who do not go to school never have near-sight. Most children who have near-sight have it by inheritance. Near-sighted parents beget near-sighted children. Prof. Donders, after extensive and careful observations of every state in Europe, found that his own countrymen, the Germans, have the largest number of short-sighted persons. The distribution of near-sightedness, chiefly in the cultivated classes of society, points to its principal cause, viz., straining of the eyes for near objects.

Statistics of examinations of eyes of over 20,000 children in Germany and America give important information on this point. Different observers give as a result of their examinations in Germany a percentage of near-sighted children in the youngest or lowest classes in the schools varying from 11.1 to 13.6, and in the highest classes 43.3 to 62.1. Drs. Loring and Derby, of New York, examined the eyes of 2,265 children of that city, and found the percentages respectively 3.5 and 26.78.

According to Loring, at the present moment, 62 per cent. of those who graduate from the public schools of G many are near-sighted. The same preponderance of short sightedness is noticed in the German children in New York. American children are not as yet in so unfortunate a condition, but it would appear from the above figures that they are rapidly becoming so. There is, however, one element in the American and English character which does not obtain in the German character, and which affords ground for hope. It is the fondness for out-door games of all kinds. This, with its results of reduction in amount of study performed, and (when judiciously regulated) of improved general health, together with better understanding and enforcement of hygienic laws generally will, it may be hoped, prevent an increase of this defect. Near-sightedness is, therefore, essentially a disease of childhood, but developed by close application of the eyes at too early an age. Prof. Donders, one of the greatest living authorities on this subject, declares he has never seen a case originate after the twentieth year; Erismann has rarely seen it begin after the fifteenth or sixteenth. We see that short-sightedness is much more common in Germany than in England or the United States. The reason almost certainly is that, because of the compulsory system of education carried out in Germany, there is more continued application to study at the age when it is most injurious, viz., from eight to sixteen years. After the age of sixteen, application of the eyes to small objects is not so dangerous; there then are important points in prevention. Children must not be sent too early to school, nor must they be kept too continuously at work. But there are other causes: anything which lowers the general health favors short-sightedness. Causes which often operate are: improper or defective food, indigestion, want of exercise, imperfect ventilation, over-heating of the room, wet feet, too great inclination forward of the head, a bad position of the body, and certain defects in the light which will be sufficiently indicated in the rules to be given below. From these facts it will appear that near-sightedness depends largely on the condition of general health of the individual child. Whatever is most conducive to general health, lessens near-sightedness. I have thought it important to speak somewhat at length on this point, because there is a popular, common and pernicious idca that a near-sighted eye



is a strong one. This is as pernicious as it is false, because it leads to neglect. A near-sighted eye is a diseased and deformed one. It is as much a deformity as a club foot or crooked spine. Why? Because it debars men from many occupations in life, and lessens in women that quickness of perception which is their special gift and reliance. Now, if too constant study at an early age, and other causes produce myopia, and this be transmitted from parent to children, and if Germany be taken as the type, and if every nation desirous of excelling intellectually be compelled to follow in her footsteps, it would appear that there is, in view of the great competition in every walk in life a probability of increase of near-sightedness all over the world—a truly alarming prospect. A great responsibility, therefore, rests with school boards and teachers—a serious duty to lessen by all means in their power the operation of the causes here indicated.

The following are a few useful short rules for the care of the eyes, especially in children:—When reading, writing, drawing, sewing, &c., always take care that (a) the room is comfortably cool, and the feet warm. (b) That there is nothing tight about the neck. (c) That there is plenty of light without dazzling the eyes. (d) That the sun does not shine directly on the object you are at work upon, or upon the objects in front of you. (e) The light ought not to come from in front, it ought to be from the left shoulder. (f) The head must not be bent very much over the work. (g) The page or object must not be less than 15 inches from the eyes. (h) In any case when the eyes have a defect, avoid fine needle-work or any fine work for more than half an hour at a time. (i) Don't study or write by candle light before breakfast. (j) Don't read while lying down. (k) If your eyes ache from fire-light, snow or overwork, use neutral tint spectacles, but before doing this, it is better to consult an oculist. (l) Avoid reading or sewing by twilight, or when weakened by recent illness, especially fever.

Danger to eyesight is not the only one from too early commencement of the school education of children. On the part of parents this is doubtless often from a real desire to begin the child's education, but there is often another motive. When advising parents of a certain class on this point, I am often told that they are sent to school to get rid of them for a few hours. Much will depend on the kind of school and teacher. When a child is in

good health proper use of the mental faculties is delightful. Few persons will doubt the advantages of the Kindergarten system, which interests, pleases, and instructs. But of this, two and a half or three hours a day is enough. The interest of little children can be kept up to any desirable pitch by methods which have been reduced to a system, and if this be not true of older scholars it is because the key has been lost by their educators. In general terms it may be said that any system of study, which forces a child to assume a task before the mind is sufficiently developed to grasp it, or which compels a child to learn without understanding what he is old enough to understand, or which compels him to learn rather than by inducing spontaneous action, is bad. The natural working of a pupil's thought in connection with his studies ought to be encouraged, not suppressed as it sometimes is by neglect, oversight, want of sympathy, or want of time on the part of the teacher. More obvious than these is the ill effect on body and mind of over-strain, which there is much reason to believe often obtains, and to no one is it better known than to the physician. There is nothing that physiology has more certainly demonstrated than that work in excess of the powers of the system adds nothing to the result achieved. If a child's daily capacity for work is three hours, then nothing is gained by making him work five hours. The brain of the child is imperfectly developed, it is not capable of much concentration, it cannot without injury perform continued tasks of any sort, but especially school tasks. Below the age of seven years, two to three hours of work daily are sufficient; from seven to ten, three or four hours; from ten to twelve, four hours. At the period of puberty, so important to mental and bodily health, with its rapid growth and sexual development calling for a large share of the energies of the system, six hours is probably all that should be devoted to study and recitation. There is no doubt that overwork obtains frequently in the latter class, who are at the age when they are high school pupils. The system of rank and reward, based on success, is, no doubt, stimulating. This is proper enough for boys, but not for girls. It is not so much the quantity of labor exacted from children, as the spirit in which it is done. Girls are much more sensitive to the apprehension of failure, the dread of disgrace, the eagerness for success, than are boys who are often rather benefited by such stimuli. There is undoubted danger from work

performed under stress of emotion in sensitive subjects, and emotion is a far more fruitful source of insanity or brain disease than over-work of body or mind.

To every teacher of girls I would recommend the careful study of a little book by the late Dr. Clark, of Boston, entitled, "Sex in Education; or, a Fair Chance for the Girls," a work whose popularity is shown by its having passed through five editions in six years; but it has also been cordially endorsed by the medical profession.

W. GARDNER.

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### THE ISLAND OF ATLANTIS.

None of Plato's inventions have had greater influence upon the history of mankind, and upon literature, than the myth of the Island of Atlantis. Where and what it could be, was one of the puzzles of the Middle Ages, and, undoubtedly, had a stimulating effect upon the discoverers of our continent. It should be really no puzzle to us now, but ideas die very hard; and the world, having once believed that Plato's myth must be taken seriously, has scarcely relinquished the notion yet. Mr. Frith Jeffers, in the first chapter of his history of Canada, classes it among "traditions prevalent regarding the existence of such a continent" (as America), and Edward Clodd, in his "Childhood of Religions," says: "There is a legend of a lost Island named Atlantis, placed by Plato west of the Pillars of Hercules, in the Atlantic Ocean." It does not seem to strike either of these writers that Plato's assertion is not equivalent to a tradition, that the whole account really rests upon this, and that, in such a case as this, Plato's authority is absolutely valueless.

The subject is one of considerable interest, and to enable our readers to judge for themselves, there is nothing like having the actual passages before them. So before attempting to find what truth there is in the story, we will see what the Ancients had to say upon the subject. The story begins with Plato.

His account comes in the dialogue called "Timæus." Critias, Timæus and Socrates are speaking together, and Critias tells Socrates "a strange tale, which is, however, certainly true, as Solon, who was the wisest of the seven sages, declared. He was

a relative and a great friend of my great grandfather, Dryopidas; and Dryopidas told Critias, my grandfather, who remembered and told us." The narrator, Critias, goes on to say that it was "an Old-World story, which I heard from an aged man; for Critias was at that time nearly ninety years of age, and I was about ten years of age." There was a city at the head of the Egyptian Delta called Sais. "Now the citizens of this city are great lovers of the Athenians, and say that they are in some way related to them. Thither came Solon, who was received by them with great honour; and he asked the priests, who were most skilful in such matters, about antiquity, and made the discovery that neither he nor any other Hellene knew anything worth mentioning about the times of old."

The story that these Egyptian priests told Solon was as follows. "Athene founded your city a thousand years before ours, receiving from the Earth and Hephæstus the seed of your race, and then she founded ours, the constitution of which is set down in our registers as 8,000 years old. As touching the citizens of 9,000 years ago, I will briefly inform you of their laws, and of the noblest of their actions: and the exact particulars of the whole we will hereafter go through, at our leisure, in the sacred registers themselves. . . . Many great and wonderful deeds are recorded of your State in our histories. But one of them exceeds all the rest in greatness and valour. For these histories tell of a mighty power which was aggressing wantonly against the whole of Europe and Asia, and to which your city put an end. This power came forth out of the Atlantic Ocean, for in those days the Atlantic was navigable; and there was an island situated in front of the straits which you call the columns of Heracles; the island was larger than Libya and Asia put together, and was the way to other islands, and from the islands you might pass to the whole of the opposite continent which surrounded the true ocean; for this sea which is within the Straits of Heracles is only a harbor, having a narrow entrance, but that other is a real sea, and the surrounding land may be most truly called a continent. Now in this island of Atlantis there was a great and wonderful empire, which had rule over the whole island, and several others, as well as over parts of the continent, and, besides these, they subjected the parts of Libya within the columns of Heracles as far as Egypt, and of Europe as far as Tyrrhenia. The vast power

thus gathered into one, endeavoured to subdue, at one blow, our country and yours, and the whole of the land which was within the straits; and then, Solon, your country shone forth, in the excellence of her virtue and strength, among all mankind; for she was first in courage and military skill, and was the leader of the Helenes. And when the rest fell off from her, being compelled to stand alone, after having undergone the very extremity of danger, she defeated, and triumphed over the invaders, and preserved from slavery those who were not yet subjected, and freely liberated all the others who dwell within the limits of Heracles. But afterwards there occurred violent earthquakes and floods; and in a single day and night of rain all your warlike men in a body sank into the earth, and the island of Atlantis in like manner disappeared, and was sunk beneath the sea. And that is the reason why the sea in those parts is impassable and impenetrable, because there is such a quantity of shallow mud in the way; and this was caused by the subsidence of the island." (Timæus 20-25. Translation by Jowett.)

This account is supplemented by further details in the dialogue called "Critias," of which the following outline will be sufficient. On the side towards the sea and in the centre of the island was a plain, said to be very fertile, and a mountain where dwelt Evenor and Leucippe, with their daughter Cleito. The father and mother died, but Poseidon, to whom the island had been allotted, loved Cleito, and she became by him the mother of five pairs of male children. He then divided the island for them into ten parts, and set over them his ten sons as Princes—making Atlas, the first born of the eldest pair, King over the whole island. From him accordingly, it took its name. Atlas and his descendents were rich, and traded with other countries. The island was well stored with the valuable metal orichalcum and with wood, and supplied with animals of all sorts, and every kind of fruit, and herb, &c., &c. Plato then goes on to describe the ideal state, for the sake of which the island had been called into existence.

Such is the origin of the whole story; and before proceeding to the further developments given to it by antiquity, it will be well to determine what exact amount of credit is due to Plato as an authority. For it must not be forgotten that he is really our sole original authority. Herodotus, Thucydides, Polybius, the great historians of antiquity, knew nothing of it. It were, perhaps,

hardly to be expected that the two latter should concern themselves about it. But Herodotus is a curiously learned writer, most of what we know of ancient geography, history, ethnology and sociology comes from him. He loved a good story, he was a great traveller himself, and he brings somehow into his delightful pages much curious geographical information. For instance, the accounts of the Cassiterides, of the Hyperboreans, of the Pelasgians, of the Lydian origin of the Etruscans come from him. It would be a strange thing if he had not heard "the tradition" of Atlantis, stranger still, if having heard it, he had not alluded to it somehow. To come back to Plato, we are naturally led to inquire what amount of credit is due to such a statement as the above, coming from him. We have stated before that it is absolutely valueless, and we will give our reasons. Plato is above all things an idealist, a poetical philosopher, to whose statements as to actual fact it is very unsafe to trust. There is a good Oxford story of some one who was asked his opinion about Dr. Jowett and Dean Stanley, the two leading members of the Broad Church party in England. Dr. Jowett, he said, could not appreciate facts, or Dean Stanley ideas. Now Plato is in much the same case as his translator was said to be. The highest fact for him lay in the region of ideas. He accordingly held curious notions as to truth and falsehood. We will illustrate them from the Republic. Socrates is speaking: "This is what might most correctly be called a genuine lie, namely, ignorance residing in the mind of the deluded person. For the spoken lie is a kind of imitation and embodiment of the anterior mental affection, and not a pure, unalloyed falsity; or am I wrong?" "No, you are perfectly right." . . . "Once more: when and to whom is the verbal falsehood useful, and therefore undeserving of hatred? Is it not when we are dealing with an enemy? And in *legendary tales* of which we were talking just now, is it not *our ignorance* of the history of ancient times which *renders falsehood useful to us, as the closest attainable copy of the truth?*" "Yes, that is exactly the case." (p. 382). . . . "But again, a high value must be set also upon truth. For if we were right in what we said just now, and falsehood is really useless to the Gods, and only useful to men in the way of a medicine, it is plain that *such an agent must be kept in the hands of the physicians*, and that unprofessional men must not meddle with it." (p. 389). . . . "This being the

case, can we contrive any ingenious mode of bringing into play one of those seasonable falsehoods of which we lately spoke, so that, *propounding a single spirited fiction*, we may bring even the rulers themselves, if possible, to believe it, or if not them, the rest of the city?' 'What kind of fiction?' 'Nothing new, but a Phœnician story, which has been realized often before now, as the poets tell and mankind believe, but which *in our time has not been, nor, as far as I know, is likely to be realized*, and for which it would require large powers of persuasion to obtain credit.' . . . (p. 414). One of Plato's numerous myths follows. From all this it is quite evident that a statement does not rest upon very strong grounds, which has only Plato's assertion as its authority. But writers of antiquity took much of what Plato told them seriously, and amongst other matters, our story of the lost island. *We are not deceived by the circumstantial touches, about Solon and the Egyptian Priests, which Plato threw in to give it an air of verisimilitude, but many of the ancients were.*

We are now in a position to review the thoughts of antiquity upon the subject. To begin with we are confronted by a difficulty. Among various works that have been falsely ascribed to Aristotle is one called *De Mirabilibus Auscultis*, which, as its name implies, treats of marvellous stories and traditions. It is nearly certain that it is not by Aristotle, but whether it was written after Diodorus Siculus wrote or before, is uncertain. This work however gives a short account (ch. 84) of what we find at greater length in Diodorus. We may next pass to Posidonius (B. C. 100) who discusses the question of Atlantis. His opinions we get from Strabo and they had better be left to be noticed with Strabo's own account. The historian Diodorus (B. C. 60) has a good deal to say upon the subject. His account is practically identical with that which goes by the name of Aristotle. In Book V (ch. 19, 20, 21) he gives a long account of a large unknown island, passing to the consideration of it after having spoken of the Balearic islands and before treating of the history of Britain. The island which is nameless is of great extent and several days sail from Libya. It lies to the west and is very fruitful. A great deal of it is mountainous, but there is a fair amount of plain and it is distinguished for its beauty. It is watered by navigable rivers and has many fine gardens or parks, full of all sorts of trees and garden stuff, and divided up into beds

by streams of fresh water. There are in the island fine residences and pleasure resorts, all kinds of animals, and on the whole it is better suited to be the home of gods than men. Diodorus then gives an account of its discovery by some Phœnicians who sailing from Gadeira (Cadiz), their colony, were driven by stress of weather upon its shores. The Carthaginians prohibited its being colonized because they were afraid of its tempting their citizens to settle there. Here we have possibly "a forecast of America." Plato's island, we know, had disappeared, so that his imaginery description does equally well for something else. The authority too for this island is shifted from the Egyptians to the Phœnicians. Strabo, who lived at the Christian era and was the greatest writer on Geography of his day, while admitting the possibility of two inhabited countries in the midst of the Atlantic (Book I), is contemptuous about Plato's Atlantis. He mentions with approbation Posidonius' surmise, that owing to earthquakes and changes it is possible that the island is not Plato's mere invention. But then he adds a hint of his own, that the man who brought the island into existence also caused its disappearance (Geographica II, 3, 6). Our next authority, Pomponius Mela, who wrote a book entitled *De Situ Orbis* about the time of Claudius, affirms the existence of an unknown island, but puts it in the south (I, 9,2). On the other hand, though he speaks of the outer shore of Spain and Gaul (III, 1,2), of Britain, Ireland (Iverna) and Thule, he has not a word to say of Atlantis. In his chapter on the Atlantic, he places there the islands of the Hesperides and the 'Fortunatæ Insulæ,' or islands of the Blest. Pliny the Naturalist twice mentioned Atlantis (II, 92 and VI, 36), but with a certain amount of doubt (*si Platoni credimus*). Ptolemy, the greatest of ancient writers on Geography, who lived in the third century A.D., does not mention it at all. Ammianus Marcellinus, who lived in the fourth century, by way of illustrating the different ways in which the earth's surface has been changed, by earthquakes, climatic changes and sinking, mentions the disappearance of Atlantis. Our next authority is a Scholiast upon the *Timæus*, who affirms on the authority of those, who have investigated the history of the Atlantic, that there was some such island as Atlantis and of the same size. The information that follows, from containing the names of Greek and other deities mixed, unmistakably betrays its character.



“There were seven islands in the sea sacred to Persephone and three others of boundless extent, one sacred to Pluto, another to Ammon and a third in the middle of these sacred to Poseidon of a thousand stades in extent, the inhabitants of which preserved from their forefathers a tradition relating to Atlantis, viz., that an island actually existed there of very vast extent and that it ruled for many ages over all the islands in the Atlantic, itself being sacred to Poseidon.” This was the account of Marcellus in his history of Ethiopia and was extracted from the works of Proculus and so found its way into the Scholiast’s note. Proculus was a Platonist living about A.D. 450.

Such is what we learn from the ancients about this Island. It only remains to notice shortly the various explanations that have been given of the story. The sceptical have always held it to be a sheer invention on Plato’s part, and this of course puts an end to the whole question, but those who regarded it as a genuine tradition explained it in various ways. Proculus gave the whole story a double meaning, the contest between the Athenians and people of Atlantis symbolising the contest between the spirit of art and science on the one side, and the powers of nature on the other, just as we might say the contest between Greece and Persia had the same meaning. Or it was explained by a principle of *ignotum per ignotius*, being connected with the golden age; or (as by Bailly in his History of Astronomy) with Herodotus’ Hyperboreans; or again with Homer’s Phæacia by Mr. R. L. Ellis. Those who believed that Atlantis was some definite land called it the Scandinavian peninsula, or a sunken continent the remains of which are the Canary Islands and the other islands off the coast of Africa. But by far the most popular theory was that Atlantis was America; ships had been driven there by storm and hence the tale arose. “China and the great Atlantis (that you call America),” wrote Bacon in 1624, “which have now but junks and canoes, abounded then in tall ships. This island (as appeareth by faithful registers of those times) had then fifteen hundred strong ships of great content”—then follows the account of the Baconian ideal state, the New Atlantis. Bacon’s position with regard to the story is curious. His Preface, written by W. Rawley, as well as the work itself clearly show us that, like its original author Plato, his state is a mere invention of his own; but unlike Plato he probably believed in Atlantis, as having more

than a literary existence. "If you," he writes in his *Essay on the Vicissitudes of Things*, "consider well of the people of the West Indies, it is very probable that they are a newer or a younger people than the people of the old world. And it is much more likely that the destruction that hath heretofore been there, was not by earthquakes (as the Egyptian priest told Solon, concerning the island of Atlantis, that it was swallowed by an earthquake), but rather, that it was desolated by a particular deluge. For earthquakes are seldom in those parts." As a last illustration, I cannot refrain from quoting a pathetic poem by the Rev. G. Croly (to be found in *Hayes' Collection of Irish Ballads*) upon the mournful fate of the people of the lost island :

Where art thou, proud Atlantis, now ?  
 Where are thy bright and brave ?  
 Priest, people, warriors' living flow ?  
 Look on that wave !

Crime deepened on the recreant land,  
 Long guilty, long forgiven ;  
 There power uprear'd the bloody hand,  
 There scoff'd at Heaven.

The word went forth—the word of woe—  
 The judgment thunders pealed ;  
 The fiery earthquake blazed below ;  
 Its doom was seal'd.

Now on its hills of ivory  
 Lie giant weed and ocean slime,  
 Burying from man and angel's eye,  
 The land of crime.

We have traced the growth of the story ; we have now to trace the decline of belief in it. In *Chambers' Encyclopædia*, published in 1786, there are as yet no signs of scepticism, "the most distinct account of this celebrated country is given us in Plato." Atlantis is a land of which we have more or less distinct accounts, but of its existence there appears to be no doubt. The *Encyclopædia Britannica* for 1842 gives an account abbreviated from the long account in *Chambers* (we have omitted his different theories as to situation, &c.), but the state of mind as to its existence appears to be much the same. This is reprinted without material alteration in 1854. *Anthon's Classical Dictionary* (1848) iden-

tifies Atlantis with America or the islands off the coast of Africa. But before this, Atlantis had been written down by Pinkerton in his Geography, edition of 1811, as "a region at first conceived in the sands on the west of Egypt; and afterwards, like other fables, passing further west before the light of discovery." Tennyson had seen its true character when he wrote his Prize Poem of Timbuctoo in 1829:

" And much I mused on legends quaint and old  
Which whilome won the hearts of all the earth  
Toward their brightness, ev'n as flame draws air ;  
But had their being in the heart of man  
As air is th' life of flame : and thou wert then  
A center'd glory-circled memory,  
Divinest Atalantis, whom the waves  
Have buried deep, and thou of later name  
Imperial Eldorado, roof'd with gold :  
Shadows to which, despite all shocks of change,  
All on-set of capricious accident,  
Men clung with yearning hope which would not die."

But these were as yet individual opinions, and not of the sound nature to find their ways into Encyclopædias. At last however the Encyclopædia Britannica (1875) talks of Plato's story as "an account which, if not entirely fictitious, belongs to the most nebulous regions of history. The story may embody some popular legend, and the legend may have rested on certain historical circumstances, but what these were it is impossible to determine." The opinion of the two great English Platonists is very plainly stated. Grote, writing in 1865, merely remarks that "these gigantic outbursts of kosmical forces, along with other facts, Plato affirms to have been recorded in the archives of the Egyptian priests. He wishes us to believe that the whole transaction is historical. *As to particular narratives, the line between truth and fiction was obscurely drawn in his mind.*" With Dr. Jowett's remarks (1871) I will conclude this paper: "Plato, as he has already told us, intended to represent the ideal state engaged in a patriotic conflict. This mythical conflict is prophetic or symbolical of the struggle of Athens and Persia, perhaps in some degree also of the wars of the Greeks and the Carthaginians, in the same way that the Persian is prefigured by the Trojan war to the mind of Herodotus; or as the narrative of the

first part of the *Æneid* foreshadows the wars of Carthage and Rome. \* \* \* \* \* Hence we may safely conclude that the entire narrative is due to the imagination of Plato, who would easily invent 'Egyptians or anything else' (Phædrus), and who had used the name of Solon (of whose poem there is no trace in antiquity), and the tradition of the Egyptian priests to give verisimilitude to his story. To the Greek such a tale, like that of the earth-born men, would have seemed perfectly accordant with the character of his mythology, and not more marvellous than the wonders of the East narrated by Herodotus and others. The fiction has exercised a great influence over the imagination of later ages. As many attempts have been made to find the great island, as to discover the country of the lost tribes. Without regard to the description of Plato, and *without a suspicion that the whole narrative is a fabrication*, interpreters have looked for the spot in every part of the globe, America, Palestine, Arabia Felix, Ceylon, Sardinia, Sweden. The story had also an effect on the early navigators of the sixteenth century."

R. W. BOODLE.

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### SPELLING REFORM.

This important movement, the necessity for which was apparent even before Dr. Franklin published his phonetic alphabet in 1768, is a subject that should interest all concerned in education. The movement has taken two directions. On the one hand, attempts have been made in the direction of a Phonetic Alphabet, new letters being introduced to correspond to unrepresented sounds. On the other hand, many scholars, who object to the introduction of a new alphabet, see no reason why spelling should not be brought more into accordance with sound, and advocate a system of Phonetic Spelling.

We shall register from time to time the leading proposals made and the results arrived at.

At the London Philological Society (Nov. 5.) Mr. H. Sweet moved his printed resolutions on "Immediate Reform of English Spelling." After much discussion, the first three of these were carried in the following form:—1. That an immediate partial phonetic reform of English spelling is both desirable and practi-

able. 2. That one of the chief objects of such a reform is to facilitate the acquisition of English spelling. 3. That the Society does not pledge itself to go beyond the principle of etymological limitation in certain cases. At a subsequent meeting various corrections of English spelling were recommended. The following list was published by Mr. Sweet in the *Academy*, (Dec. 18):

1. Dropping of useless *e* in such words as *have, serve, freeze, eye, rained*, (not after *s*).
2. Change of *-re* into *-er* in *centre, &c.* (not after *c* and *g*).
3. Dropping of *a* in *bread, zealous, &c.*, and of *e* in *hearken, hearth, &c.*
4. Dropping of *o* in *jeopardy, leopard, people*.
5. Change of *ie* and *ei* into *ee*, where so pronounced, as in *chief, field, deceive, seize*.
6. Change of *o* into *oo*, where so pronounced, in *lose, move, &c.*, and of *oe* into *oo*, in *canoe, shoe*.
7. Change of *o* and *ou* into *u*, where the latter is historical, as in *come, cover, country, young*.
8. Dropping of silent *u* after *g* in native English words, such as *guess, guilt*.
9. Dropping of silent *ue* after *g* in *tongue, catalogue, league, &c.*
10. Dropping of silent *u(e)* after *g*, as in *picturesque, liquor*.
11. Dropping of the *u* in *honour, labour, &c.*
12. Simplification of useless double consonants, as in *add, inn, travelling (ck and ss kept)*.
13. Dropping of *b* in *debt, doubt, subtle*.
14. Dropping of the *b* of *mb*, when a short vowel precedes, as in *bomb, lamb, limb*.
15. Restoration of historical *s* for *c* after a consonant, as in *hence, pence, scarce*; also in *cinder*.
16. Restoration of older *c* for *ch* in *chamomile, school, melancholy, &c.*; change of *ache* into *ake*, and of *anchor* into *anker*.
17. Dropping of the *c* of *scythe, scent*.
18. Change of *d* into *t* in *looked, &c.*
19. Dropping of *g* in *feign, foreign, sovereign*.
20. Dropping of the *h* of silent *gh*, as in *high, straight*, and of the *h* of *ghost, aghast, burgh(er)*.
21. Change of unhistorical *delight, haughty, sprightly*, into *delite, hauty spritely*.
22. Dropping of *h* in *rhyme, thyme*, and of *w* in *whole*.
23. General extension of *z* for non-inflectional soft *s*, especially where distinctive, as in *abuse, to abuse, close, to close*, and in the termination *-ise*
24. Dropping of *s* in *aisle, demesne, island*.
25. Dropping of the *t* of *tch*, as in *crutch, witch*.
26. Dropping of the silent consonants in *could, receipt*.
27. Change of *nephew* into *newew*.

At the Royal Society of Literature, (Nov. 24), Mr. F. G. Fleay, a well-known Shakesperian scholar, read a paper entitled 'The Living Key to English Spelling Reform now found in History and Etymology.' The object of Mr. Fleay's paper was to show that the objections to spelling reform are principally founded on an exaggerated estimate of the amount of change required. This exaggeration has been caused by the revolutionary proposals of the leading reformers, who neglected the history of our language and the etymological basis of its orthography in favour of philosophical completeness. Mr. Fleay, on the other hand, proposed a scheme which was developed in two forms, one, perfectly phonetic, for educational purposes, the other differing from this only in dropping the use of the accents and the one new type required in the former. He showed that even in the vowel sounds not one-tenth would need alteration, while in the case of the consonants the alteration required would, of course, be much less.

On the question of Spelling Reform, and against some of the objectors to it, Dr. Murray, the editor of the Philological Society's Dictionary, speaks very plainly in his Annual Address to the Society:—

"I hardly need add that my dictionary experience has already shown me that the ordinary appeals to etymology against spelling reform utterly break down upon examination. The etymological information supposed to be enshrined in the current spelling is sapped at its very foundation by the fact that it is, in sober fact, oftener wrong than right, that it is oftener the fancies of pedants or sciolists of the Renaissance, or monkish etymologers of still earlier times, that are thus preserved, than the truth which alone is etymology. From the fourteenth century onwards, a fashion swept over French and English of refashioning the spelling of words after the Latin ones, with which rightly or wrongly they were supposed to be connected; and to such an extent has this gone that it is, in nine cases out of ten, now impossible, without actual investigation, to form any opinion upon the history of these words—the very thing which the current spelling is supposed to tell us. The real history is recovered only by marshalling the phonetic spellings of earlier days, as the Philological Society's Dictionary will enable everyone to do, piercing through the mendacious spellings of later times to the phonetic facts which they conceal or falsify, and thus reaching a genuine etymology. The traditional and *pseudo*-etymological spellings of the last few centuries are the direst foes with which genuine etymology has to contend; they are the very curse of the etymologist's labour, the thorns and thistles which everywhere choke the golden grains of truth, and afford satisfaction only to the braying asses which think them as good as wheat."

What the Philological Society's late president says is what most men who know their business say. Germany, the nation of philologists, has partly reformed its spelling, and is preparing further reforms. In the American spelling reform movement, Profs. Whitney, Marsh, and all the leading scholars in the States take part. In France, Prof. Paul Meyer and men of his rank regret the incubus of the Academy, which renders all hope of reform void.

### JOTTINGS ON ENGLISH WORD-LORE.

In that well-known and attractive little book Earle's *Philology of the English Tongue*, reference is made to the word *tea*. My readers are doubtless aware that although our grandmothers spelled *tea*, they said *tay*, and Mr. Earle reasonably explains this pronunciation by stating that the *ea* is simply the *e*-ouvert, written phonetically (*a*), with *e* re-inforcement. Middle English, English of the period from 1200 to 1500, affords many examples of *e* printed and *a* pronounced. This *a* sound of *e* or *ea* proved to be long-lived. It was frequently heard in the early years of the Eighteenth Century and it is a favorite subject for comment by those who study the age of our Literature, misnamed Augustan. Interesting as would be the labour of tracing this sound through successive generations of poets, I must forego any such endeavour now, and confine my attention to a few brief notes on a statement made by Mr. Earle regarding the point in question—the noun *tea*. Mr. Earle writes, (Second Edition p. 171):—

“The following quotation will carry us to 1775, the date of a poem entitled *Bath and It's Environs*, in three cantos, p. 25.

Muse o'er some book, or trifle o'er the tea,  
Or with soft musick charm dull care away.”

Sixteen years after *Bath and It's Environs* first saw the light, William Gifford, (1757-1826), published his *Baviad*, taking the key-note from the first satire of Persius and the title from Virgil's line “Qui Bavium non odit, amet tua carmina Mævi.” The band of pretentious poetasters, of whom Bavius and subsequently Mævius were, in Gifford's eyes, deemed fair types, is known as the Della Cruscan. Its lackadaisical heart-breaking,

with the invariable accompaniment of the solitary tear, was the latest development of the morbid sentimentality expressed in a gloomily religious way by poets from whom these fastidious and fashionable Della Crusceans derived their inspiration. The only production of Mr. Merry and his devoted admirers which has been spared oblivion is the song "Wapping Old-Stairs," written by Mr. Parsons, and there we read :—

In silence I stood, your unkindness to hear,  
And only upbraided my Tom with a tear.

Gifford, a lover of common sense and sound thought, albeit politically bigoted, determined to smother while yet in its infancy, what appeared to him to be arrogant nonsense. He composed the *Baviad* and the *Mæviad* with this aim, and in the course of the former poem he says :—

The summons her blue-stocking friends obey,  
Lur'd by the love of Poetry and tea.

This exemplifies the genuine *tay* pronunciation as late as the close of the Eighteenth Century. Mr. Earle, when writing to me concerning Gifford, deals with a matter of interest to the lovers of English word-lore. "I should like to know about what date good society began to say *tee*. The *tay* sound would have retained its poetic status a considerable time after people were talking of *tee* in their with-drawing rooms." Prose cannot solve the problem unless it happens to treat it specially: but poetry may be made to yield some answer, and to learn when *tee* was first written as rime would be of value. Some of your correspondents may be able to throw light on the subject.

On page 177 Mr. Earle discusses a linguistic curiosity precisely the converse of the fore-going: *ay* is written and *ee* spoken. "But there is at least one remarkable exception to this assumed scarcity of *ay*. For the last forty years or so there has been a prevailing tendency to pronounce *quay*, kee; and *Torquay* is most numerous called Torquee." The following explanation may meet the case, which is far from being unique, for the suffix *quay*, when used in proper nouns, is, both in Scotland and England, very frequently pronounced *kee*. *Torquay* is a fashionable watering-place, the creation of the present century. The society of the drawing-room especially loves, perhaps from laziness, to weaken vowel sounds; it prefers *e* to its stronger brother, the



broad *a*. Torquay, then, being the rendezvous of the upper classes, receives its widely recognized pronunciation from them and their dictum prevails in spite of the peculiarity of local speech. The Devonshire dialect is noted for its tendency to retain *a* (*ay*) and true to the nature of dialects, shows us in this instance, as in many others, the power of common folk to preserve the language of their forefathers. In the country districts *Torkay* is invariably heard; in the town itself *Torkee* only. The simple word *quay* is destined, in all likelihood, to be called *kee* at no very distant date. In passing, I may mention that Tennyson sanctions the *ay* sound in "In Memoriam," XIV., 1.

I am tempted to make a few general remarks concerning English vowel-change. Vowels are glides. Having one element in common, the true vibration of the true vocal chords, they are formed by gradual and almost insensible alteration in the position of the upper parts of the vocal mechanism, the cheeks, the palate, the tongue. Hence vowels are both infinite in number and continuous. This may be proved by pouring water into an empty long-necked bottle. As the resonant tube is shortened, the vowels, beginning with *u* (*oo*) and ending with *i* (as in *Italian*), are distinctly heard. A more forcible illustration may be found in the *miaou* of the cat's throat and here the changes are sometimes painfully slow. Speaking in general terms, we may say that the English language, as it becomes developed, is inclined to play this vowel scale, as just written, from right to left, but it should be remembered that our mother tongue, is remarkably affected by what is known as diphthongal strengthening. This phenomenon however, is simply an exception to a valid rule, which, if rightly applied, will serve to explain many cases akin to that briefly discussed.

CHARLES E. MOYSE.

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#### NOTES ON EDUCATIONAL TOPICS.

We wonder what schoolmasters think of such books as *A Bad Boy's Diary*. For ourselves we are tired of collections of bad grammar, bad spelling and trivial incident. *Tom Sawyer* was well enough, but second-hand humour is not very entertaining. It is not from the point of view of the general reader that it is

desirable to protest against such trash as this Diary. If he enjoys it, so much the worse for him. But the case meanwhile of the pupil and his teacher is different. It is only right to enter a protest in the interests of the last-named sufferer. "It may be fun for you, gentlemen, but it's death to us." If papers are to be believed, the literature of Jack Shepherd and of other Gentlemen of the Road filled not a few adventurous youngsters with the ambition of becoming highway robbers. At least we remember several cases being brought to light, and many must have occurred which were wisely suppressed. But comparatively few boys are bold enough now (tho' they may have been in the days described in Tennyson's new poem of Rizpah) to put themselves within the actual clutches of the law. Instead of Seven String Jack, Georgie Hackett will become their beau ideal.

The instinct of mischief is deeply implanted in the schoolboy nature. It does not require encouragement. And the Canadian lad is believed to be well provided with the love of tormenting. Ulphilas, who made a celebrated translation of the Scriptures into Visigothic, for the benefit of the recently converted tribes of barbarians, refused to include some of the books of the Old Testament, for fear of his converts emulating the turbulence of the stiff-necked Hebrews. It is just such an example, in a small way, that the imps of the schoolroom have in the Bad Boy's Diary. And in the interest of their teacher it is right to protest against the tendency of this bastard form of literature. His work is hard enough without its burden being aggravated. But if boys are to have the added incentive of glory, if for Tom Brown's School Days is to be substituted the glorification of the bad boy, the teacher's life will not be a happy one. Small things are of great moment in the work of education, and cheap works of this kind are from our point of view nothing less than vicious in their tendency.

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Attention has been drawn in England to a subject that has much interest for us. In a speech delivered at the London University, when distributing the Oxford local certificates, Mr. E. Clarke, M.P., is reported to have said that,

"There was one society especially, which called itself a college, but was, in fact, a joint-stock trading company, which, by largely advertising, and by the careless complicity of some distinguished men, was doing a considerable bu-

siuess in the manufacture and dissemination throughout the country of certain titles."

After these words had been applied to Trinity College, London, the secretary wrote to Mr. Clarke for explanation. A correspondence ensued in which the following facts, for which we are indebted to the *Pall Mall Budget*, came out as to the origin of the College in question. In 1875 the chief promoters of the Church Choral Society, consisting of four music masters, one schoolmaster, one editor, and a merchant, formed themselves into a Limited Liability Association (not for profit) under the Companies Acts of 1862 and 1867, with the object of promoting church music and assisting church choirs, and were registered under the title of Trinity College, London. Mr. Clarke had no difficulty in showing that the college has departed widely from its original articles of association, and has arrogated to itself the right of granting titles and diplomas bearing the same letters as those granted by English and Scotch universities. It further appears to be matter of doubt, whether the M. A. that the Warden has appended to his name signifies Moderator of Arts, or Master of Arts in some anonymous university. On their own showing, Trinity College is a company of private individuals undertaking to examine all comers and to grant diplomas or certificates on their examination. The correspondence raises an important issue and points to a danger which has assumed serious proportions on this side of the Atlantic.

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An article by Dr. Constan, of Paris, on the Influence of Tobacco upon the Functions of the Brain gives most interesting statistics drawn from primary, secondary and higher schools. The figures show that it affects the quality of the studies in a constant ratio. The conclusion to which Dr. Constan comes is as follows :

"The depressing action of tobacco on the intellectual development is, therefore, beyond question. Its influence clogs all the intellectual faculties, and especially the memory. It is greater in proportion to the youth of the individual, and the facilities allowed him for smoking."

This is a matter to which we would draw the attention of Canadian Parents. In large city schools, it is impossible for teachers to stop the practice of smoking among the scholars without their cooperation. Nobody would care to see the severity, with which the offence is visited in English boarding schools, imita-

ted in Canada. But we must none the less recognize that there is some reason for severity. The physical effects are thus described by Dr. Constan :

“ One of these young scholars whom we questioned gave us a very accurate definition, both of the effect and the charm of tobacco-smoking; he said that a cigarette made him dream. In other words, the use of the cigarette intoxicates these young people, causing them giddiness, fits of absence, and a dislike to all mental exertion.”

But apart from this, the moral effects of the practice are not healthy in the case of the young. A boy who is precocious enough to smoke, is likely in other ways to exercise an evil influence over his companions. It is sometimes urged that it is useless for masters who smoke to attempt to put down the practice amongst boys. But the argument will not stand. The difference of age makes all the difference. A crusade against the use of tobacco by teachers would be Quixotic. They will please themselves in that matter, and they have a right to do so. But boys have no such right; they are under tutors and governors, and the time of their discretion in such matters is not yet come.

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## REVIEWS.

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“ ISLAND LIFE.” By ALFRED RUSSELL WALLACE. (HARPER & Bros., New York.)

(For sale at Dawson Brothers.)

Such is the name of the latest work from the pen of Alfred Russell Wallace the “co-discoverer with Darwin of the law of natural selection.” The book is divided into two parts, to the latter of which only the title properly applies, and is written, as we should naturally expect, from the standpoint of an evolutionist. The first part is devoted to preparing the reader to understand the reasoning and conclusions of the latter half of the volume. Having laid down somewhat dogmatically, we think, the doctrine that evolution is the key to the distribution of plants and animals, and glancing at the powers of dispersal at the service of these beings, the author shows how such dispersal has been affected by geographical, geological and “climatal” changes, considerable

space being devoted to a discussion of the probable causes of the glacial age and to its effects on the distribution in question.

In advancing his own theories, Mr. Wallace at times neglects to state as fairly as he might the views and arguments of those who differ from him; for example, we read:—

“So long as the belief in *special creations* of each species prevailed, no explanation of the complex facts of distribution could be arrived at or even conceived, for, if each species was created where it is now found, no further enquiry can take us beyond this fact.”

Those who believe in “special creations” do not hold that each species was created where it is now found. They believe in certain centres of creation from which the various species were distributed and we fail to see why such a belief renders an explanation of distribution inconceivable.

Again, in discussing the origin of chalk, the views of those who regard this substance as a deep-water formation are dismissed in the following sentence:

“Now as some explanation of the origin of chalk had long been desired by geologists, it is not surprising that the amount of resemblance shown to exist between it and some kinds of oceanic mud should have been at once seized upon, and the conclusion arrived at that chalk is a deep-sea oceanic formation exactly analogous to that which has been shown to cover large areas of the Atlantic, Pacific, and Southern oceans.”

In the second part of the volume we are shown in succession the principal islands of the globe, our attention being specially directed to the peculiarities and affinities of the fauna and flora of each, which the author holds to be due to the law of natural selection, acting through long periods of time and influenced by geological changes.

Many who read Mr. Wallace's book will doubtless be unwilling to grant to evolution the power with which he invests it, but apart from all theory as to the part this law has played in the distribution of plants and animals the book presents such a vast array of facts from nature that it is a mine of information, interesting and useful alike to the ordinary and the scientific reader. It will prove a boon to the busy men of to-day, who desire without going into details to have a general idea of the nature of the forces which have brought about the present physical conditions of the earth, and of those which according to the evolutionist have determined the character of the faunas and floras of the islands of the globe.

CÆSAR DE BELLO GALLICO. Books I. to III. Edition with Notes by MESSRS. MERRYWEATHER & TANCOCK. (Rivingtons, London.)

We have received this excellent little edition of the first three books of Cæsar. It is well edited and has maps of different sizes scattered through the text. Besides these ordinary, or shall we say inseparable, accidents of an edition of Cæsar, it is furnished with two introduction. —upon Gaul in its relations with Rome, and upon the Life of Cæsar until B.C. 58. Appendices follow, giving Rules of Reported Speech, a brief account of Se and Suus, a note on Cæsar's army. Then come Indices, Geographical and Biographical, and what every edition of the Classics should have, a select index to the Notes. These are well written and refer to books in ordinary use at the present day, if, as unhappily is the case, as yet unfamiliar to Canadian Schools, viz. the Public School Latin Primer and Roby's great work. The book contrasts favourably (it could hardly do otherwise) with Butler's eight-penny Cæsar published in Seeley's Series and with Bryce's Second Latin Book. Butler's notes are meagre and his text too small, while all Bryce's works are full of bad scholarship and obsolete explanations.

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We have just received the first number of Gage's *School Examiner and Monthly Review*. Issuing from the business firm that publishes the *Canada School Journal*, "it deals with an entirely distinct and separate department." The programme is most tempting, "a series of popular articles on the History of Philosophy" being promised, which "will endeavour to give an intelligible and interesting survey of the history of thought." The number contains part of an essay upon Sir "Walter Scott," which is interesting; but we cannot agree with the writer in his estimate of Carlyle, as a critic, or of Wilhelm Meister. There is a School Story, an amusing paragraph headed Literature in 1981, and an historical survey of Literature in 1880. The writer should not have included The Data of Ethics in the latter, as it was published in 1879. The *Examiner* is in magazine form at 15 cents per number, is well got up and altogether promises well.

NOTES AND NEWS.

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—In consequence of the treatment that it received in the matter of the review held at Quebec early last summer, the Cadet Corps of the High School, Montreal, has refused to re-organize.

—The Protestant Board of School Commissioners for Montreal desires an increase of its members, and intends to secure the co-operation of the Roman Catholic Committee in obtaining this change. Their present number is so small that they find it impossible to form committees, and so to facilitate work. A larger number would also give a better representation of public opinion. It is proposed that three additional members should be nominated by the Protestant Committee of the Council of Public Instruction.

—A copy of the Act respecting the Pension and Benevolent Fund in favour of the Officers of Public Instruction has been opportunely issued with explanatory notes. Explanations such as that of Sect. 27 do not improve matters, and the interpretations of the law as to "casual revenue" and upon Sect. 1 give a chance for jobbery and for obtaining pensions under false pretences.

—Talking of the education of women, it may be noted as a curious fact that more applications for the admission of their daughters into Girton College are made by the clergy than by any other class in the community. This is remarkable on two grounds. Firstly, the clergy are generally credited with being conservative in their habits of thought, and one would hardly expect them to be attracted by so revolutionary a movement as that of the university education of women. Secondly, they are not usually rich, and poor men generally regard their daughters' education as "finished" at eighteen, and do not care to spend more upon it.—*The Athenæum*.

**VISIBLE SPEECH.**—Prof. Graham Bell, the inventor of the telephone, delivered an address before the London Philological Society on his father's system of "visible speech," as applied to the teaching of deaf-mutes in the United States. This system has driven others out of the field, and has an enthusiastic body of teachers who are constantly employed in perfecting its details. One deaf-mute is an editor of a newspaper, and, unless his visitors have heavy moustaches, he reads their words from the motion of their lips, and answers them so that they leave him in ignorance that he is quite deaf. Another deaf-

mute, in gratitude for what the system has done for him, has learnt printing, and turned printer and publisher at Salem, Mass., solely to popularise visible-speech books. This "visible speech" is founded on the principle of making the shape of every letter show by what organs of the voice the sound of the letter is produced. A deaf-mute incapable of making any articulate sound is brought to a visible speech teacher, and encouraged to make a sound with his voice. The teacher's training enables him to analyse this sound, and he draws on a black board a section of a man's throat and mouth—all the voice-producing organs—with the visible-speech signs for each. Such of these signs as represent the deaf-mute's inarticulate sound the teacher then combines and writes down. He then sees which of the organs employed has to be stopped or altered in position in order that the sound of *k*—from which all the vowels and other consonants can be rapidly developed—may be made; and, by holding down the deaf-mutes tongue (say) with an ivory pencil, pressing his throat with a finger, drawing him a plan on the board, *k* is gradually got from him; then all is safe. The intelligence of most of the deaf-mutes, and their delight in their gradual acquirement of their absent senses, are a pleasure to witness. In this case science has fulfilled her truest function, in Bacon's eyes, of ministering to the wants of suffering men. The minute study of phonetics, so often ridiculed as worthless, is not only justified, but glorified, by the end attained; for that study alone has enabled Prof. Graham Bell and his father, the inventor of the system, to accomplish the results they have gained. Though the invention was made years ago in England, the old country was too unenterprising to take it up; but the new gladly hailed it, and its success and development have been triumphant. Yet still in England one lady only, who went to America to learn it, teaches the system to three deaf-mutes whom she is charitably educating. A possible further development is in store for "visible speech." The number of adult emigrants in the States who cannot read is perilously large. In several places trials are now being made as to how quickly certain adults can be taught to read by visible speech, and then transferred to our present unphonetic spelling. The results already attained lead to the belief that Prof. Bell's system will some day be recognized by the Legislature, and form a permanent part of the educational system of the United States.—*The Academy*.

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### BISHOP'S COLLEGE, LENNOXVILLE.

It is with great pleasure that we hear that the senior portion of this institution is now in full work at the village of Lennoxville. They are comfortably provided for in the Town Hall, which has been placed at the disposal of the Principal by the municipal authorities. The health of the students is excellent, and the number higher than it has been for several years.

The School has for the time migrated to *Magog*, where the



summer portion of the Park House has been fitted up to receive the masters, matron and boys, giving good accommodation to the number now in attendance, twenty-four, and with provisions in a neighboring house for any increased number who may attend. The billiard and sitting rooms of the Park House have been converted into class rooms. We are glad to hear that the number is steadily increasing, and that the Rector has good reason to expect a considerable increase next term.

Up to the last moment the authorities were under the impression that the school could be re-opened with safety in its proper buildings, and it was only after public notice was given of the intended re-opening, on the 22nd of January, that the Medical Commission intimated their desire that further underground work should be made in order to remove even the remotest chance of future trouble. We may confidently state that although defects were found in the old drainage system of the College, yet these will be remedied by a reconstruction on an improved plan under the advice of a competent engineer, aided by the experience of the Medical Commissioners and such practical minds as the Sanitary and Drain Inspectors of Montreal who have all come forward willingly to aid the authorities of the College. We heartily wish Bishop's College, Lennoxville, better luck for the future.

It is only fair to state, that the extremely damaging paper upon the Typhoid Fever by Dr. Worthington, in the January number of the *Canada Medical and Surgical Journal*, is full of mis-statements and exaggerations. We have the best authority for our assertion.

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#### THE SOMERVILLE LECTURES—1881.

The following is the interesting course of winter lectures that has been given by the Natural History Society of Montreal:—Thursday, Feb. 3rd—On "Mind in Nature"—Principal Dawson, LL.D., F.R.S. Thursday, Feb. 10th—On "Magnetism and Electricity as Aids to Intelligence"—F. Barnes, M.D., L.S.A. Thursday, Feb. 17th—On "The Whence and Whither of a Sunbeam"—H. S. Evans, Esq., F.C.S. Thursday, Feb. 24th—On "Sugar and its Varieties"—J. Baker Edwards, D.C.L. Thursday, March 3rd—On "The Brain as a Thinking Organ"—Wm. Osler, M.D. Thursday, March 10th—On "Tobacco, its use, its abuse, and its effects on the Brain, the Nervous System and the Organs of Vision"—F. Buller, M.D.

## A FORGOTTEN POEM BY COLERIDGE.

The following poem, which has just been published by W. Bell Scott in *The Athenæum*, is to be found in "The Wild Wreath" (1804). The editor of this volume was Maria Elizabeth Robinson, better known as the daughter of "Perdita." The poem is not only interesting as a piece of Coleridge's work, but as resembling a part of Wordsworth's famous ode, published in 1807.

## THE MAD MONK.

BY S. T. COLERIDGE, ESQ.

I heard a voice from Etna's side ;  
 Where, o'er a cavern's mouth  
 That fronted to the south,  
 A chesnut spread its umbrage wide :  
 A hermit, or a monk, the man might be ;  
 But him I could not see :  
 And thus the music flowed along,  
 In melody most like to old Sicilian song :

" There was a time when earth, and sea, and skies,  
 The bright green vale and forest's dark recess,  
 With all things lay before mine eyes  
 In steady loveliness ;  
 But now I feel on earth's uneasy scene  
 Such sorrows as will never cease ;—  
 I only ask for peace,  
 If I must live to know that such a time has been !"  
 A silence then ensued :  
 Till from the cavern came  
 A voice,—it was the same,  
 And thus in mournful tone its dreary plaint renew'd.

" Last night as o'er the sloping turf I trod,  
 The smooth green turf,—to me a vision gave  
 Beneath mine eyes, beneath the sod—  
 The roof of Rosa's grave !  
 My heart has need with dreams like these to strive ;  
 For when I woke, beneath mine eyes I found  
 The plot of mossy ground,  
 On which we oft have sat when Rosa was alive.  
 Why must the rock and margin of the flood,  
 Why must the hills so many flow'rets bear,  
 Whose colours to a murder'd maiden's blood  
 Such sad resemblance wear ?  
 I struck the wound—this hand of mine—  
 For oh, thou maid divine,  
 I loved to agony.  
 The youth thou calledst thine  
 Did never love like me.

Is it the stormy clouds above  
 That flashed so red a gleam  
 On yonder downward trickling stream ?  
 'Tis not the blood of her I love,  
 The sun torments me from his western bed :  
 Oh let him cease for ever to diffuse  
 Those crimson spectre hues ;  
 Oh let me die in peace and be for ever dead !"

Here ceas'd the voice. In deep dismay,  
 Down thro' the forest I pursu'd my way.

## FLOWERS FROM THE GREEK ANTHOLOGY.

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“ MEN WERE DECEIVERS EVER ”

(*Callimachus.*)

To fail Ione Callignotus swore  
None but herself to cherish or adore.  
But men say truly that the Gods above  
Laugh at the reckless perjuries of love—  
See—the false boy to other lips has flown,  
While fond Ione waits and weeps alone!

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THE CLINGING VINE.

(*Antipater of Sidon.*)

A vine o'er me, a withered plane, hath grown,  
And shrouds my limbs with foliage not their own,  
Grateful—because my boughs, once verdant, trained  
Her tender shoots, her clustering grapes sustained.  
So choose, fond boy, a partner like the vine,  
Whose love around thee, e'en in death, may twine.

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ON A PHYSICIAN.

(*Nicarchus.*)

Ten of Alexis' patients once were ill:  
To three a draught, to two he gave a pill,  
And five he blistered. Well, what followed then?  
One eight, one grave, one Hades for the ten!

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THE MIRROR OF LAIS.

(*Plato.*)

I, Lais, once of Hellas the delight,  
To Venus consecrate my mirror bright.  
What I am now, I do not care to see—  
What I was once, I ne'er again can be!

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A DEAD CHILD.

(*Lucianus.*)

Five years alone had vanished since my birth,  
When ruthless Pluto snatched me from the earth.  
Mourn not my fate; for, if my life was brief,  
I leard't but little of life's sins and grief.

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XERXES AND LEONIDAS.

(*Philippus Thessalonicensis.*)

Ere brave Leonidas had breathed his last,  
A purple cloak around him Xerxes cast.  
The warrior cried: “Thine honours I reject—  
“Stretched on my shield, my corse is amply decked.  
“No Persian I—to Hades I will go,  
“Sparta's true son, in life and death, thy foe.”

G. MURRAY.

## SCIENTIFIC DEPARTMENT.

Every one has heard of the London fogs, and knows them to be a source of great inconvenience to the inhabitants of the English Capital. Few however are aware of the evil effects of these fogs, which last Winter hung over London from November until February. During this time the death rate of the city greatly increased. The fog affected most seriously those suffering from asthma, whilst lung diseases in general appeared with greatly increased fatality. These evil results do not follow from the fogs as such, but from the properties conferred upon them by the substances poured forth from the chimneys of dwelling houses and factories. These substances are the cause of the duration of the fog, if not indeed of the fog itself; they load the air to such an extent that the slight motion which exists is unable to carry them out to the surrounding country. People in describing these fogs frequently say they are so thick that they may be felt. We shall readily understand this to be no exaggeration, when we learn that it has been calculated, that sixty tons of soot are poured forth daily from the chimneys of Sheffield, and that London produces a very much greater quantity. A writer in a recent number of *Nature* proposes to rid London of its fogs in a very simple way. He suggests that the gas companies of that city should in future extract from coal only one-third of the quantity of gas they are in the habit of doing and that the coke left, after this quantity has been obtained, be the fuel used in the city. Such fuel will give, at less expense than coal or ordinary coke, a cheerful but smokeless fire and leave London with little or no fog.

Mr. Plimsoll, the English "sailor's friend," has now espoused the cause of the coal miner. He proposes seeking a means of keeping coal mines entirely free from combustible and explosive gases. Before his object can be attained we must learn more of the properties of coal dust, for it seems from recent investigations that this substance has much to do with the spread of flames in a pit; if it be not, in some cases at least, the cause of explosions. It is well known that the fine dust formed in flour mills is highly combustible.

Rock-salt forms part of the strata of the earth. The salt of commerce is obtained either by mining the rock, dissolving it in water and evaporating the solution; or by the evaporation of sea water, or of brine obtained from salt wells. The brine of these wells has been formed by water passing over rock-salt and dissolving a portion of it. If therefore a large quantity of salt be taken from any particular district it follows that a considerable portion of the earth's crust must disappear. The vacancy thus created is sometimes filled by the mass above settling down. Such a landslip, as it is called, occurred lately in Cheshire, the great salt district of England, by reason of which the face of a large extent of country was changed, resulting in consider-

able damage to property. We need not be surprised to hear at any time of a similar occurrence in the salt district of our own country

Much has been written of late concerning the mound builders, a name applied to the early races on this continent who for various purposes erected primitive earthworks, the remains of which are found along the banks of our chief rivers as far north as the great lakes. Dr. Schultz, M. P., has lately examined one of these mounds in the county of Lisgar, Manitoba. He believes all in that section of country to be ancient burial places. In the one examined were found skeletons in a sitting posture with folded hands. An examination of one of the skulls shows that it differs in many points from the typical Indian skull of living races. The Doctor remarks: "Our own Indians have no traditions at all in regard to them, implements and ornaments are alike strange and the practice of the present and preceding Indians was to dispose of their dead on elevated stages rather than to inter them." Many mounds of our continent are undoubtedly nothing but heaps of refuse from the kitchens of the aborigines of bygone days. These heaps are composed chiefly of shells of mollusks, with sometimes human bones, which have been cracked to facilitate the extraction of marrow, showing that some of the aboriginal races of America were cannibals. Similar shell heaps or "Kitchen-middens" are found on the Danish Islands in the Baltic and in Japan.

A patent has recently been issued to Daniel Ruggles of Fredericksburg, Va., for a method of precipitating rain storms, which, judging from a well-known precedent, is not entirely chimerical. It has frequently been noticed that heavy cannonading is followed by a fall of rain. Profiting by this suggestion, Mr. Ruggles has invented a method of producing a concussion, or a series of concussions, in the upper regions of the atmosphere which he believes will induce rain. The invention consists in brief of a balloon carrying torpedoes and cartridges charged with such explosives as nitro-glycerine, dynamite, gun-cotton, gunpowder, or fulminates, and connecting the balloon with an electrical apparatus for exploding the cartridges.

The museum of the Natural History Society of Montreal had been rearranged, and now contains a very good representation of the various departments of Natural History. The Collection of birds, nearly 1,200 in number, is especially good. Among the latest additions to the museum, are a box made from a plank of the "Royal George"; a lock of Grace Darling's hair; and a sucking fish, so called because it possesses an apparatus at the top of the head, by means of which it attaches itself to ships and other objects. The natives of the Mozambique coast use a large species of sucking fish in catching turtles. They fasten a rope to the tail of the creature and throw it into the sea. The fish in endeavoring to escape attaches itself to the nearest turtle, when both are drawn to land together.

Principal Dawson's latest educational work is entitled "Lecture Notes on Geology." This small volume, of ninety-six pages, is an excellent summary of the principal points of Lithology, Stratigraphy, Palæontology, and Historical Geology. It is, indeed, just such a series of notes on these subjects as

would be taken by a *perfect* student who had attended the author's lectures on Geology in McGill College. Whilst we hear<sup>1</sup> welcome this little work we hope yet to see from Dr. Dawson's pen a Geological text-book somewhat of the character of Dana's well-known manual, but especially adapted to the wants of Canadian students of Geology.

J. T. D.

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### LITERARY DEPARTMENT.

By the death of Thomas Carlyle, on February 5th, Great Britain lost her literary king—the successor of Scott, Johnson, Pope and Dryden. Among these, Johnson alone stands on the moral eminence attained by Carlyle. Scott, so noble as a man, lived too much in the past to be the teacher of the present. Pope exercised no mean influence on the moral tone of his age; but in him, as in Addison, we miss the robust personality of Johnson, Scott and Carlyle. Thus the death of Carlyle naturally brings us back to the death of Johnson, nearly a century ago. Living in such different epochs, the two ex-schoolmasters present many points of contrast as well as of similarity. Johnson affected to despise Scotland, but it had not in his day given birth to a Carlyle. By the curious irony of fate, Carlyle taught his century to appreciate Johnson's true greatness. Both writers gave their name to a peculiar style of English, but what a vast difference between "Johnsonian" and "Carlylese"! In the history of thought, they stand at opposite poles; Johnson idolized "Principles," Carlyle was never tired of ridiculing "Formulas." Yet it was Johnson's wit that gave to the world Carlyle's favorite text, "My dear friend, clear your mind of cant." The following extract from Harriet Martineau's Autobiography gives a true estimate of his work in the world:—  
 "We are at least awakened to a sense of our sins; and I cannot but ascribe this awakening mainly to Carlyle. What Wordsworth did for poetry, in bringing us out of a conventional idea and method to a true and simple one, Carlyle has done for morality. \* \* \* \* He has infused into the mind of the English nation a sincerity, earnestness, healthfulness and courage which can be appreciated only by those who are old enough to tell what was our morbid state when Byron was the representative of our temper, the Clapham Church of our religion, and the rotten-borough system of our political morality."

Tennyson's "Cup" received notice last month. It is an interesting coincidence that the greatest living poets of England and America should simultaneously have turned their attention to the stage. Longfellow's "Masque of Pandora," converted into an opera, was played lately in Boston. The first performance, which was witnessed by the poet, went off with great success.

The two last volumes of Ward's Selections from the English Poets, with Critical Introductions, have been published. Upon the work, as a whole, I hope to speak in a future number; for the present it will be sufficient to say

that the concluding volumes, carrying us from Addison to Dobell, contain notices by the best poetic critics of the day. Nothing of the kind superior to these volumes, or even equal to them, has been published.

A new volume of poems by Mr. Swinburne, entitled "*Studies in Song*," has appeared. Those who have read his latest poems know what to expect. Over the present volume there has been a slight passage of arms, which is interesting as illustrating the ever-recurring dispute between the advocates of Art for Art's sake and of Art for something beyond it. Professor Dowden opened in the *Academy* with the following criticism:—"The greatest poets grow in wisdom and in knowledge; they grasp life with larger hands; their powers consolidate themselves, become more robust; their passion becomes more massive; their vision of the world more wide and deep. The garment of Mr. Swinburne's verse spreads its borders and sweeps in more voluminous folds, but the living thought, for whose sake the garment is wrought, has not waxed in stature, and seems half lost in its uncontrollable breadths and lengths of gear. Mr. Swinburne's writing often becomes obscure, not from thought amassed in block, nor from the crossing threads of a swift-weaving intellect, but because of the exhausting process which the reader is forced to undergo in shredding out a thought thin enough to cover its inordinate space of words. Certain rhetorical devices—antithesis, the pairing of kindred words, the balancing of equal-weighted clauses, even alliteration—come to serve as substitutes for invention and for ideas. And the tyranny of such processes withdraws the idea, when it exists, from simplicity, from reality, from the manifold subtle movements of life, and renders it mechanical, rigid, strained." He was answered by the *Athenæum* reviewer, in the following week:—"The mental value of his work must be judged by a standard applicable to no other contemporary poet, inasmuch as his method of work is so radically unlike theirs. There is no greater mistake than that of comparing poetry whose mental value consists in a distinct and logical enunciation of ideas, and poetry whose mental value consists in the suggestive richness of symbol latent in rhythm, and even of color."

For good or evil, Mr. Swinburne's influence in poetry has become very great. It is traceable with that of Tennyson and others in the latest volume of Canadian poetry by Mrs. Maclean, of Kingston. "*The Coming of the Princess*" is introduced by the editor of *The Canadian Monthly*, and contains many poems of real beauty. The best introduction, however, to the volume is the verses by which it is prefaced, in which the writer compares herself to "a little bird singing in the night, dreaming of coming day." The full day and the

Poet of our glorious land so fair,  
Whose foot is at the door,

have not yet come. Still, we are glad to welcome such beginnings as the present volume. We may notice, too, as a piece of Canadian work, a little book entitled "*Eurydice, Ahoy!*" by the author of "*One More Unfortunate*," describing a yachting trip from Montreal to Lake Champlain. The writer at least loves his subject, and is not without an eye for the beauties of nature.

R. W. B.

## CORRESPONDENCE.

## AGRICULTURAL EDUCATION.

SIR,—I need hardly say that the system of farming in Canada differs very greatly from that pursued in the British Isles. In truth, we have no system, properly speaking; every man, in the more inland districts, doing what his neighbours do, and resenting, almost as an affront, any insinuation that the practice he and they follow admits of any improvement from the introduction of foreign methods of cultivation, or of modern modes of rearing and feeding stock; and the consequence is, that whereas the average yield of wheat is 29½ bushels per acre, in England; here, it only reaches 8½; the age at which bullocks are slaughtered there is 2 years, here 3½ or 4, the weight being about the same.

I presume that this enormous difference between the produce of the two countries will surprise as well as shock many people. It is one of those things "not generally known." But, when known and appreciated, I think only one opinion can be formed upon it; there must be something terribly faulty in the education of our farmers. The fact is, they, as a rule, receive no education; no special education, I mean, that will in the least degree aid them in their future pursuit. The lawyer, the physician, the merchant, all are at one time or another put through a course of training peculiar to their intended professions; the farmer alone is left to hunt out a road to success, and the chances are, that he follows the beaten path which he finds invitingly traced out for him by his forbears, and settles down on his land, contented with the miserable produce it affords under the old system of cultivation, from which it seems to be the lot of this Province never to escape.

To cure this defect in our farming population, we must, as in everything else, begin at the beginning. Nothing short of an entire change in the teaching of our elementary schools can do any real good. Prejudice is the first foe to be conquered. In the Island of Montreal the victory has been long ago won; and the Somervilles, the Drummonds, the Doads, and the Logans can show farms as well managed as any one could wish to see; and all of them cultivated after the model of the best Scotch and English districts. But in the country parts it is not so. Hint that such or such a plan might answer better than the one generally followed in the neighbourhood, and you are met at once with the unreasoning answer, "Oh! that's English-fashion, and won't do here." For this terrible bent of mind the cure must rest with the general instruction of the population of the Province, there is no special remedy; but as its parent is ignorance, entire ignorance of a specific subject, it will not, I think, be disputed that we are to a great extent faulty in not having that subject taught in, at least, our country schools.

And of what should this teaching consist? In as few words as possible, I will give, not only my own ideas, but the ideas of a gentleman who, from his position, has been compelled to study the question with attention.

In every school assisted by Government there should be given at least



three weekly, simple lessons in the elements of Agriculture, such books, as "Johnston's Catechism," or a dozen others I could name, might be used; but a great deal would depend upon the teacher. What is really wanted is, to accustom the young mind to hear new ideas without starting aside from them like a frightened horse. I know that the Hon. G. Ouimet, the Minister of Education, has already been most persevering in his efforts to assist this form of instruction in the public schools of the Province. And it is not only to the boys that this special teaching should be given; the girls—farmers' wives most of them must be—should share in it. They are the future mothers of the race, and, especially in the French country, the more or less they are taught, the more or less prejudiced will be the succeeding generation. If the boys learn what good ploughing means, the girls should learn what are the principles of horticulture, what the management of a dairy, a poultry yard, an apiary, and an orchard. The elements of chemistry and physiology may follow in the next grade of schools—model or academy—and these subjects should be taught in a simple way, but in a way that will be of real use to the future farmer, that is, more experimentally than on the black board. It would be of immense advantage to any farmer to be able to read with understanding the analysis of a manure, or an article on the digestive powers of any of the domestic animals. At present it would be "Ebrew Greek" to nine-tenths of them, even in the simplest forms.

That agricultural education should be made general is, I am convinced, the one thing necessary for the improvement of our farming. It will be useless for those who are engaged in the practical part of the higher agricultural teaching to hope to raise the standard of the Province, unless the ground-work laid and the instruction given in the earlier branches be loved and sought for: this must depend upon the manner in which it is given, too much black-board soon blunts the learner's appetite, conversation sharpens it.

An annual visit should be paid by the Director of Agriculture, or his delegates, to every school receiving Government aid, and the pupils should be examined by him that their progress may be ascertained, and the teacher encouraged or blamed according to his deserts.

We have at present three Agricultural Colleges, so called, which receive grants of money from the Government of the Province. What success they have met with, and how far they have fulfilled the objects for which they were established may be seen in their various reports made to the Council of Agriculture, and in the observations of the Council in the blue-books. Why have we not one large establishment, a Provincial School of Agriculture instead of three petty ones? Nobody knows the reason; but every one must see that it would be more easy of superintendence, more simple and less costly in management, and less liable to be abused as a means of providing for decrepit political partisans. The College at Guelph, Ont., is perfectly successful. There they can accommodate no more pupils; so we must for the future trust to our own efforts if we wish to afford the young men of the Province a sound and finished agricultural education.

ARTHUR R. JENNER-FUST.