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THE CANADA  
EDUCATIONAL MONTHLY

JUNE-JULY, 1899.

QUEEN'S UNIVERSITY, KINGSTON.

ROBERT BURTON, M.A.

On October 16th, 1841, the Royal Charter incorporating Queen's University received the great seal, a provincial charter previously granted to the "University of Kingston" having been annulled, as the Royal Charter must take precedence of all others.

Though this university is non-denominational in all except the theological faculty, the genius of Queen's is essentially Scotch. Her system of government and her courses of study are in a general way modelled on those of the Scottish universities, and her strength is very much that of the Scottish character—lofty ideals, an innate love and reverence for true learning, perseverance, and frugality without penuriousness—these are the main elements which have contributed to the growth and success of Queen's. The following partial list of those Canadians who were concerned in the securing of the charter shows that from the very first the University has had the support of men of great intellectual and moral force: Hon. William Morris, Rev. Robert McGill, Rev. Alexander Gale, Rev. William Rintoul, Rev. John Machar, Rev. John Cook, Hon. John Hamilton and Hon. John A. Macdonald.

The faith of these men and of those who undertook the work of instruction must have been great, for the outlook was not very bright, and from the first the financial problem was a pressing one; neither at the outset nor at any time since has Queen's been the

recipient of many generous bequests from wealthy patrons. Careful financing and the self-sacrificing efforts of many devoted friends of limited means have enabled her to exist and to develop—to tide over the crises in her history, and to attain the assured position which she holds to-day. Though a large measure of the success is due to the ability and energy of the present Principal, it is but fair to remember his faithful predecessors, who laid the foundations and fought the early battles of the University.

The first Principal was Rev. Dr. Liddel. (1841-1846), and his successors were Rev. John Machar, D.D. (1846-1852); Rev. Dr. George, Vice-Principal (1852-1857); Rev. Jno. Cook, D.D., LL.D. (1857-1860); Rev. Wm. Leitch, D.D. (1860-1864); Rev. Wm. Snodgrass, D.D. (1864-1877); Rev. George Munro Grant, 1877. In 1877 Rev. Dr. Cook was elected Chancellor, and on the expiration of his term of office, in 1880, Sir Sandford Fleming was elected, and is now serving his seventh triennial term as Chancellor.

Classes opened in 1842 in a frame building on Princess street, with three students in attendance, and two professors. Two years later there were 21 students, and the classes were removed to two or three small stone houses on William street. In 1854 the present campus was purchased, and the classes, numbering 31 students, were removed to the buildings which were then upon it. About this time the Royal Med-

ical College of Kingston was established, and in 1855 it was affiliated with Queen's University. Though still retaining its original charter it has practically ceased to be a separate institution, and is now the medical faculty of Queen's University.

When Principal Grant took office in 1877 the number of students in all faculties was 130, and three years later, when the present university building was opened for occupation, the number had increased to 240. During the session which closed in April last the total number of registered students in the various faculties was 650. Not less satisfactory is the increase in the staff of instructors. The initial staff of two has expanded into a staff of over forty professors and lecturers, assisted by about twenty tutors. When the present university building was erected, and especially when it was, in 1889, supplemented by the Carruthers' Science Hall, with its very complete equipment, the friends of the University thought that the question of accommodation was settled for long years to come. But already the buildings are taxed beyond their capacity, and the time has come for the erection of new buildings or else the limiting of the number of students to be admitted.

In 1893 the School of Mining and Agriculture was established in Kingston and affiliated with Queen's, and, shortly after this the Faculty of Applied Science was established. The University now includes the following faculties. Arts, theology, law, medicine and applied science.

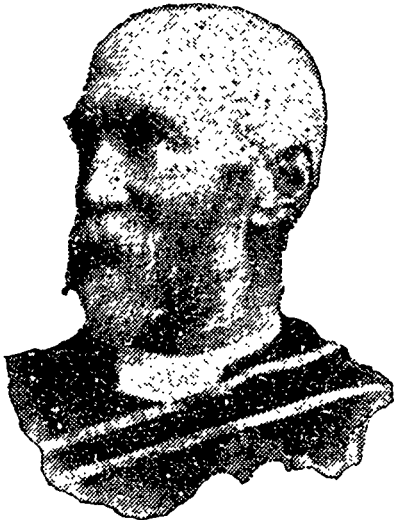
This record is one of which the benefactors and friends of Queen's are justly proud, but it has not been all plain sailing, as one might suppose from the steady progress above indicated. In 1869 the Government grant was withdrawn, and the outlook for Queen's and similar institutions was dark indeed. No wealthy benefactor came to the rescue, but contributions flowed

in from hundreds of generous friends, who gave as they were able. Still the future was uncertain, and the appointment of Dr. Grant as Principal at this juncture was most providential. It is, perhaps, not too much to say that his indomitable energy and his splendid executive ability saved Queen's to Canada. And those of us who know by experience something of the ideals impressed upon the students of Queen's and the potency of our *alma mater* in influencing for good the lives of the citizens of our country believe most heartily that he has rendered to Canada a service more beneficent and enduring than could be rendered in any other way. This is not to belittle the work of his predecessors. All honor to them. But their hopes were in danger of remaining unfulfilled and their labor of being brought to naught, and it has been given to him to bring that work to fruition, to tide the University over the greatest crisis of its history, and to so increase its efficiency that it to day the more fully expresses the ideal and justifies the faith of its founders. Since becoming Principal, Dr. Grant has been instrumental in raising nearly half a million dollars for the endowment fund, and now the total endowment, while not large enough to meet any very considerable extension of the work, is sufficient to give a guarantee of stability.

Many of the readers of the EDUCATIONAL MONTHLY will remember the agitation for College Federation in the years 1883-5. The financial status of Queen's was still far from satisfactory at that time, and there were those who felt that there was no alternative but to accept the proposed scheme. But the majority of the graduates and friends of Queen's were of a different mind, and at the spring convocation in 1885 a formal refusal to enter the federation was carried with much enthusiasm. It proved to be no mere superficial sentiment of

loyalty that actuated those who opposed federation, for, in the succeeding efforts to increase the endowment, the contributors were numbered by the thousand. Looking back over the progress that has been made during the past fifteen years one is forced to conclude that there is a place in Ontario for a University entirely independent of Government support, and sustained by the loyalty and zeal of its graduates and the citizens who have a disinterested love for higher education.

In this connection a word may be said as to a criticism frequently made



Principal Grant.

regarding Queen's men. The so called clannishness of Queen's men is proverbial, and probably there is not a student or graduate who has not been asked why it is. What has been said above accounts for it, at least in part. In the course of nature the son who feels and who seeks to discharge the responsibility of sonship towards his mother develops a deeper affection for that parent than the son who sees his mother housed in the most imposing buildings and her every want supplied

by the munificence of a few millionaire admirers, or than the son whose mother is a kind of voluntary indigent dependant on a rather parsimonious government. The same is true of one's relation to one's *alma mater*, and this is one reason why Queen's has always been pre eminent in respect of the filial attachment of her sons and daughters.

The affairs of the University are efficiently managed by a Board of Trustees, the University Council, and the Senate. The Board of Trustees is elected by votes of graduates and alumni, except five, who are elected by the University Council. The term of office is five years and a certain number retire each year. The annual meeting is held in the Senate chamber on the evening of the last Wednesday in April. This board has control of all the investments of the University and requires to pass upon all questions affecting the finances of the institution. The present chairman of the board is the Hon. Mr. Justice MacLennan, L.D., of Toronto, and the secretary-treasurer is J. B. McIver, Esq., Kingston.

The University Council, whose work is largely advisory, is composed of the chancellor, the trustees, the members of the Senate and an equal number of elective members. The elective members hold office for a term of six years, six of them retiring annually except every sixth year, when ten retire. They are elected by the vote of registered graduates and alumni, and are eligible for re-election when their term expires. The Council elects the chancellor except when there are two or more nominees, in which case a vote of the graduates and alumni is taken.

The Senate is composed of the officers of instruction and the chancellor, who presides at those meetings of Senate provided for by statute. The duties of the Senate are of an academic nature, arranging courses of

study, conferring degrees, maintaining discipline, etc. It will thus be seen that the basis of government is democratic and that every graduate or alumnus can exert a direct influence upon the administration of affairs through the representatives elected. A large percentage of the graduates accept the responsibility that this entails and take a very keen interest in everything that pertains to the welfare of the University. So marked is this that if the offer were made to-morrow for the restoration of the Government grant, carrying with it a measure of control over the University by the Provincial Legislature, the proposal would doubtless meet the same fate as did that for federation.

The programme of studies differs in some important particulars from that of the other seats of learning in Canada. In the regular pass course leading to the B. A. degree the subjects are divided into junior and senior classes, and the student completes his work on each subject in two years. Opinions may differ as to the value of this plan, but it is found to work well at Queen's. It certainly has this advantage, that in any one year the attention of the student is concentrated on some three or four subjects, a plan which is conducive to thoroughness, and which permits of greater opportunities for reading up on the subjects in hand, and thus supplementing the work of lecture room and text book. It has also another advantage for those who go on to the honors courses, as will be seen below. Another feature is the freedom of choice allowed the student in the order in which he shall take up the studies prescribed and the number of classes he shall write off in any one year. While a certain order is recommended for the first two years' studies, this order may for good reasons be departed from, the only essential being that a student must take the junior class in any subject before he

can get his standing in the senior class of the same subject. This plan necessarily involves one very important consideration, viz., that the student gets his standing in each class as he completes the work required in that class, irrespective of what he may do in others, or of the total number of classes passed in any one year. No student is compelled to pass for a second time a class in which he is proficient merely because that class is arbitrarily grouped with several others in which he is not proficient. Such a plan may be necessary in preparatory schools, but it is not adapted to secure the best results in a university. The student seeking a university training is presumably desirous of a liberal education, and no education is truly liberal which dwarfs individuality by putting all men through the same machine. If a college education consists in the accumulating and systematizing of the facts connected with various subjects of study, all of which are regarded as equally important and valuable, then the more uniformity there is the better. But if it is the training of one's powers, and the investigation of principles, there seems to be no very good reason why a student should be compelled to help half a dozen lines of study abreast of one another. The theory at the basis of the curriculum of Queen's is that when a student attends the lectures in a given subject and takes a satisfactory stand in examination upon it, he has shown capacity sufficient to grapple successfully with that subject, and may therefore be allowed to concentrate his powers upon other subjects of the course. This is a wise plan, and it often enables a student who has little natural aptitude for certain subjects to so arrange his work as to combine one of these with two or three which he can master with greater ease.

It will thus be seen that even in the ordinary pass courses Queen's allows

as much latitude as possible, and endeavors to make these courses an efficient means for the development of the student's own powers. Personality or individuality is accounted of more worth than uniformity. But it is when the honors courses are examined that one sees how fully this principle governs. It is safe to say that no other institution of higher learning surpasses Queen's in respect of the number and variety of options enjoyed by students who seek to pursue their investigations and studies farther than provided for in the ordinary courses.

For the information of those who may not understand the system in vogue at Queen's, it may be said that the M.A. degree is given not on a thesis but on the merits of the work done in any two honors departments in the literary courses, or in one department in the mathematics, physics and science courses, together with the pass classes prescribed in the College calendar. Generally speaking the course leading to the M.A. degree covers five years, though honor matriculants are able to shorten this by a year. The first three years are spent mainly on the pass subjects, and the last two are devoted entirely to the one or two honors subjects. The student who desires to proceed with honors work need not, therefore, elect which course or courses he will pursue until he has been at least two years in college, and by that time he will be sufficiently aware of his powers and predilections to choose wisely. On the literary side the options are so numerous that every student should be able to find that which best suits his own habits of mind, and which will, therefore, give him the training in which he is likely to attain the highest satisfaction and success. He has a choice of any two of the following courses: Latin, Greek, Moderns, English, History, Political Science, Mental Philosophy, Moral Philosophy. The

advantages afforded by such a liberal programme of studies are being more and more appreciated by the students. The number of students taking courses leading to the degree of M.A. is increasing from year to year, and the amount of post-graduate work done at Queen's is larger, in proportion to the number of students registered, than at any other University in Canada.

Another feature of the work which has now passed beyond the experimental stage is that of extra-mural studies. Students in all parts of Canada, and some in the bordering States, are prosecuting their studies in this way. The work is done mainly by corresponding tutors, who assist the extra-mural students registered in the different subjects. Many of those who take this course are school teachers, men who in their earlier days did not find it possible to secure a university training, and who are now so situated that it is impossible to take the course intra-murally. The weaklings invariably fall by the way, for there is no lowering of the standard, and the tale of work demanded is such as to deter all but the most persevering. Professors and tutors bear testimony to the fact that the quality of work done by extra-murals steadily improves as they advance in their course. While such students undoubtedly miss much by not coming into personal touch with all the life of the University, they cannot fail to absorb a good deal of true culture, and the institution which thus seeks to help them is raising the standard of the teaching profession, and, indirectly, of Canadian citizenship.

A word of caution may be given to any of the readers of the EDUCATIONAL MONTHLY who contemplate pursuing university studies extra-murally. Many good men have been discouraged by undertaking too many subjects at once. Four subjects of study

are a normal year's work at Queen's for an intra mural, who has all his time to devote to the work, and has, besides, the advantage of direct contact with his professors. It is folly, therefore, for a man, whose time is largely taken up with his daily occupation, to attempt a similar amount of college work. This warning is even more necessary to those who attempt the honors courses extra-murally. A favorite course with extra-murals is that of honors English, and yet the writer can say, after two years' experience as tutor in that subject, that scarcely an extra mural during that time, and there were several among them with good literary taste and good critical powers, adequately covered the prescribed course of reading.

It may not be out of place to close this sketch with a glance at college life at Queen's from the students' standpoint. To the outside world the student life of a college seems to be expressed through its athletic organizations, and examination lists, but these are only a partial expression of that life, albeit an important one. The prowess of Queen's in football and hockey need not be discussed here, though these sports undoubtedly exert a beneficial influence on the corporate student life of any college. Love for one's alma mater and loyalty to her best traditions ought to be part of the equipment of every student, and different institutions foster these sentiments in different ways. At Queen's there is no college residence to promote this, the students being scattered throughout the city, but student organizations, athletic and otherwise, more than atone for this lack, and it would be hard to find a college where the organic life is more strongly or more fully felt.

This is due partly no doubt to the influence of genial, broad minded Professors, but largely also to the policy pursued by the Senate, of granting to the students the fullest measure of

self government, a policy which is rendered possible and safe, because of the genius of the institution which has in some way declared that the supreme authority among the students shall be vested in the Alma Mater Society, membership in which is open, not only to the undergraduates of all faculties and affiliated institutions, but also to all graduates and alumni. This society is supreme among student organizations, and is acknowledged by the Senate as representative of all student interests. To the students, through it, is committed the largest possible share of self-government, and the trust is seldom betrayed. Only once in ten years has the Senate interfered, and then it was on a question towards the right solution of which public opinion among the students was hastening. Every question affecting the student body as a whole has to come before it and all athletic and musical organizations of the University are responsible to it. Its meetings are practically sessions of a parliament in which the students speak, not through representatives, but direct, and the majority rules. The practical benefits of such an organization are easily to be discerned. A University is a microcosm, and the student life within it is a state in miniature. All the problems to be faced in the larger arena of citizenship have their prototype here. There is the same division into party, the same balancing of expediency against principle, the same intrigues and diplomacy—in fact, all the lights and shades of human nature are here reflected with surprising clearness—and out of it all emerging what is on the whole the good of the student body. It is here that one is able to see that the service rendered by each is to the advantage of the whole—that the athlete, the brilliant student, the orator, the critic, the constitutional lawyer, even the book-worm and the fellow who has little force of character in him-

self and who follows blindly some leader whom he has enshrined as his hero—that all of these, working apparently so. the most part quite independent of one another, help to produce that mysterious organism called society and to illustrate the no less mysterious truth that such diverse elements, held together in the unity of a single corporate life, produce the maximum of unity and loyalty. Hence, not the least of the reasons why the Queen's student loves his *alma mater* is the fulness of the provision that is made there, not only for his intellectual and moral quickening, but for his development as a member of society through the institutions that have grown up within the University. Of the many sub-organizations representative of different faculties and sections of students, nothing need here be said. They are such as are indigenous to university

soil, and present no striking peculiarities.

The future of Queen's seems now to be assured. The foundations have been laid broad and deep, and as her past needs have inspired noble self-sacrifice, it is only to be expected that present and future needs will do no less. While conservative enough to maintain her dignity as an historical seat of learning, she is truly liberal and progressive. Her function is to seek truth and pursue it, to teach men to think, and to be satisfied with nothing short of the truth. So long as she is true to that ideal her success and prosperity are assured and succeeding generations of graduates will continue to sing with enthusiasm the drinking song of their college days,

Here's to good old Queen's,  
Drink it down.

## THE MORAL PRINCIPLES OF THE TEN COMMANDMENTS.

### A LESSON IN MORALS.

W. R. J. M. HARPER, M.A.

The Ten Commandments enunciate the first principles of morality. By them the cardinal virtues and vices are emphasized.

**"I will write upon these tables the words that were in the first tables, and these judgments thou shalt set before the people."**

The Ten Commandments are otherwise known as the Decalogue or the Moral Law.

Hints: A lesson on the history and geography of the peninsula between the Gulfs of Suez and Akabah. The incidents connected with the giving of the law—the breaking of the five tablets on which the law was written, their restoration and after-preservation in the Ark of the Covenant.

Questions: What is a first principle? Give one of the first principles or laws of hygiene, and one connected with the operations of the mind. What is a bad habit? Name a bad habit of body, a bad habit of

mind, a bad habit of soul. Do all bad habits involve a breaking of some one of the Ten Commandments? Name three of the cardinal virtues, and three vices. The word cardinal comes from *cardo*, a hinge; why then are certain virtues called the cardinal virtues? What is meant by character building? Give the meaning of the word *judgment*. What is the derivation of the word *decalogue*? Wherein is to be found the difference between the Moral Law and the other two divisions of the Mosaic legislation, the Ceremonial Law and the Judicial Law. Is the Moral Law binding on all the generations of men? In what books of the Bible are the Ten Commandments to be found?

The fulfilment or filling out of the Ten Commandments by Jesus Christ involves an enunciation of the higher principles of the Christian morality. His developments of the moral law emphasize the Christian virtues and vices.



"I am not come to destroy but to fulfil the law."

These developments of the moral law are to be found in the sermon on the Mount, as well as in other of Christ discourses.

Hints: A lesson on the country around the supposed hill on the slopes of which Christ taught His disciples. A description, by way of contrast, of the other mounts in Palestine connected with the history of Christ's public ministry.

Questions. Illustrate the meaning of the word fulfilment when used in the sense of development. Can a precept mean more than it seems to mean? Do the Ten Commandments mean more than they seem to mean? What is meant by a higher principle of morality? Enumerate one of the first principles of Christian morality. Which of these two is the higher principle: Love one another or Love your neighbor as yourself? Which of these is the fuller development of Christian morality: Love your enemies or Bless them that curse you? Repeat any one of the Ten Commandments, and then repeat its developed form as given by Our Saviour. Repeat one of the Beatitudes, put it in the form of a command, and then say of which of the precepts of the Decalogue it is a development.

#### THE FIRST COMMANDMENT (MOSES).

Thou shalt have no other gods before me.

The nations that have worshipped false gods have had a changing morality. The worship of the only living and true God recognizes but one morality. Only the fool hath said in his heart there is no God.

"The Lord our God is one Lord," was the message of Moses, in face of the many *baals* or gods worshipped in Canaan in his time, each marked by local distinctions. Baal stood as a personation of a supervisory power in nature, the fructifier of the soil. In subsequent times native worship led to the invention of the Hindu badas, the Chaldean worship of the heavenly bodies, the Arabian wor-

ship of the elements and the Greek mythology.

"Thou shalt fear the Lord thy God, and serve Him, and shalt not go after the gods of the people which are round about you," was a message specially addressed to the Israelites under the circumstances of their migration.

"Thou shalt love the Lord thy God with all thine heart, with all thy soul and with all thy might," was the further message of Moses, and Christ uses the words as he lays down the first principles of the Christian morality. The service of the Lord as one God is of body, mind and soul. We must have Him in mind in all we do. A healthful moral drill is to be found in every line of duty.

Hints: A lesson on the false gods of the Bible, another on the gods and goddesses of the Greek mythology, and an explanation of the words *monotheism*, *polytheism* and *pantheism*. The design in a daisy proves that there is a great designer, the only living and true God. He is the designer, the great first cause of all that enters into the physical, mental and moral conditions of our nature. In Him we live and move and have our being. The knowledge of God is a human instinct. We believe in His existence, and thus can prove it from within and without.

Questions: What tribal nations were in the neighborhood of Sinai when the law was given to Moses? What was the religion of the Egyptians in the days of Moses? Explain the difference between *deism* and *theism*. What was the origin of polytheism? What is a fetich? Name any five of the gods of Olympus. Which of these was supposed to have been the earliest in point of existence? What idea did he represent? What idea did Jupiter (*dies pater*) stand for? Did the Greeks and Romans actually believe that Jupiter was a living personal god, or was he only looked upon as the poetic representation of an idea? Name the planets of our solar system. What ideas did their names represent in the Greek mythology? Name the false gods mentioned in the Bible. What was the origin of these gods, as representations? Name the religions of the world at the present time that recognize only one living and true God. Is there any religious sect that recognizes no God?

**PIETY—INFIDELITY.**

The virtue enunciated in the First Commandment is piety; the vice condemned is infidelity.

**EXERCISE I.**

Name any ten persons mentioned in the Bible distinguished for their piety. Give one event in each of their lives that proves this. Was Noah a pious man? Name any person mentioned in the Bible who was an atheist. What event in his life leads you to believe him to have been such? Under what circumstances was Adam unfaithful to God, and Eli and Saul and Ahab? What is the difference between atheism and infidelity? If infidelity means unfaithfulness or the forgetting of God name any ten persons of whom mention is made in history, who, by their conduct, showed that they had for the moment forgotten God.

**THE FIRST COMMANDMENT (CHRIST).**

**Thou shalt worship the Lord thy God and Him only shalt thou serve.**

Piety is a habit; impiety is an act, and infidelity is the continuance of acts of impiety, the forgetting to worship and serve God in continuous acts of body, mind, and soul.

**Christian principle:** The neglect of any natural law of body, mind or soul is a breaking of the First Commandment.

"Our Father which art in Heaven," is the new name which Christ applies to God; the Christian society which He founds is to be known as the Kingdom of God. An act of impiety is a crime in the new kingdom, and infidelity to its Lawgiver the meanest of vices. Christian piety is a grace as well as a virtue.

"That ye may be the children of your Father which is in Heaven," develops the relationship a step further. Who would be unfaithful to or bring disgrace upon an earthly parent and not consider his act a meanness? Who would be guilty of infidelity towards the King of Kings,

the Ruler of the Kingdom of Heaven, as defined by Christ, and not consider it a greater meanness.

"Your Father which seeth in secret knoweth what things ye have need of," further emphasizes the relationship between God and man. Love casteth out fear—the fear of the omniscience, which keeps on record our virtues and vices, our good habits and our bad. Christ's fullest development of the First Commandment is, therefore, to be found in the protecting exclamation of any one tempted to do a wrong thing, "Thou God seest me."

**Hints:** A lesson on what has been called the greatest thing on earth, namely, love. Ye have heard it hath been said by them of old. But I say unto you. The contrast between the old morality and the new. Christ as our prophet—the prophet of the highest civilization, in which the religion of hate, revenge and the shedding of blood has no part.

**Questions:** What is a virtue? What is a habit? What is an instinct? What is a Christian principle? Name any virtue that is akin to piety. Name any vice that is akin to infidelity. What analogy is there between Mohammedanism and Christianity as religions? Wherein lies the great contrast? Would a Mohammedan suffer any one in his presence to make despiteful use of the name of the founder of his religion? Would a Mormon do so? How comes it then that the Christian religion is so often allowed to be despitefully spoken of in Christian communities? Why is Christ's name so often allowed to be used in the form of the vilest cursing in our streets? Is the Kingdom of Heaven a mere name? Is the Prophet, Priest and King of our religion a myth? Is our Father which art in Heaven not the only living and true God Who, through Moses, said: "Thou shalt have no other gods before me"? What is infidelity?

**FEALTY—TREASON.**

The loyalty of love is more of a virtue than the loyalty of fear. Fealty to God is the loyalty of Christian love, and is demanded by the First Commandment. Treason is disloyalty, and is still punishable by death, as are the greatest of crimes. The breaking of the First Commandment may, there-

fore, be considered as one of the worst offences a man can be guilty of.

#### EXERCISE II.

Name any ten persons mentioned in history beheaded for treason? What is the difference between fealty and loyalty? Give five of the laws by which our judges must abide in trying those who break them. Give five of the

laws of the Kingdom of Heaven as laid down by our Saviour. Which of these laws was broken by Herod, Ananias, Judas, Peter and Elymas; by Caligula, Ethelred, Rufus, Guy Faux and Judge Jeffries. Give an event in each of their lives to prove your statement. Wherein did the following show their fealty towards God: Abraham, Moses, Joshua, David, Job, Daniel? Did any of these ever break one of God's laws? Give instances.

### KNOWLEDGE AND HOW TO MAKE CHILDREN LOVE IT.

M. J. KELLY, M.D., LL.B., PUBLIC SCHOOL INSPECTOR.

In our day education, or rather, knowledge, everywhere prevails. It knocks for admittance as loudly at the cottage as at the palace gate. The peer and the peasant alike enjoy its advantages and share in its rewards. If not more profound, it takes a wider range than it ever did before. In the courts of Mammon its aid is eagerly and persistently invoked, and, therefore, the scientific side of it is especially cultivated and encouraged. Nearly all civilized nations vie with each other in extending its boundaries and increasing its money-making power. In its propagation millions are spent annually, as against thousands fifty years ago. It has become a State matter almost exclusively, its support and control being, in the main, under the direction and supervision of the State. Complaint is sometimes made that we have too much of it—that the masses are being over-educated—that aspirations are thus created which can seldom be realized, and that this tends to unrest, sometimes to crime. This is an old complaint, which applies only to inadequate or imperfect education, and justifies Pope's well known line:

"A little learning is a dangerous thing."

It is further alleged that the professions are overcrowded, and that the most promising of our boys, from the home on the farm and the cottage of the

mechanic, are drawn thither, and, without money or patronage, often doomed to starve or steal. This charge is old, too. The talk of the overcrowding of the professions is referred to by Thackeray in one of his books, and was ridiculed by him more than sixty years ago. For the diligent, honorable and high-minded student there is always room above, and to enable such a one to reach the goal is just what is needed in an educational system. The great original geniuses of this world sprung mainly from the people; Homer, Virgil, Cervantes, Shakespeare, Milton, Burke, Burns, Moore, Faraday, Carlyle, can assert no claim to high birth or learning. Yet these are among the foremost names on the files of time. But how many others, now lying in neglected graves, over which rises "nor storied urn" nor "animated bust" if the needful help had come at the critical time, might have joined the ranks of the immortals—others whose hands under more favorable auspices

"The rod of empire might have swayed,  
Or waked to ecstasy the living lyre."

Our great dramatist puts the matter well, "There is a tide in the affairs of men which, taken at the flood, leads on to fortune."

Happily in this "Canada of ours" the avenues of knowledge are open to all. From the Kindergarten to the

University the way is clear, the ascent comparatively easy. In the distance are fame and fortune. For each eager aspirant "the shining throne is waiting" if he only has the industry, the energy, the "Roman will" to climb and "take it."

But in ascending the Alps of knowledge, guides are still needed, and experienced ones, too, to prevent the unwary from slipping into pitfalls—fingerposts at the cross roads, to save time and expedite the journey, modest, silent guides who are not constantly prating about their achievements—who know the safe passes and are content to lead their charges therein, who can discern the appositeness of the Poet's couplet and act upon it.

"Men should be taught as though you taught them not,  
And things unknown proposed as things forgot."

Now to create in our boys and girls the desire for knowledge, to direct their steps to the "Temple of Truth" I conceive to be the highest aim of all instruction. In order to do this effectually and well in our Primary Schools, there are three things to be considered: (1) Our Methods, (2) Our Machinery, (3) Other means.

(1) Part of all education lies in the mastering of methods, in getting the use of tools; and the fundamental methods, the primordial tools, are the venerable three R's—(a) Reading, the knowledge of signs; (b) Writing, the making of signs and (c) Arithmetic, the foundation of measurements; the subjects on which these tools are to help us are just two, man and nature. The study of the first is literature, of the second science. He who understands the distinction and can properly apply the tools is in the way of becoming a safe guide.

(2) Our machinery is not so easily disposed of. Many thoughtful and accomplished men have expressed doubts as to whether the trend of

educational movements in this later Victorian era has always been in the direction of the best results. The beacons that guided themselves safely into port have nearly all disappeared and they dreaded the perils that menace those who may follow them. They entertain gloomy views of the future and anticipate disaster, more the outcome, it may be, of brooding discontent than of sane reflection. These are pessimists, and pessimism is as old, at least, as Nestor. They note many changes, many innovations never dreamed of before in their philosophy, and inquire of themselves, with a tremor, "Whither are we drifting?"

To their assistance have recently come a couple of prominent bank managers, who have criticized adversely our School system of which they evidently know little, and declare that the lads who enter their service from the Schools have no adequate knowledge of even the three R's, and can neither read well, write well nor reckon well. But this is not so bad as the army of anonymous scribblers who vent their venom against it in the public prints. It will probably survive notwithstanding. The fact is our Ontario School system is about as well contrived and as symmetrical as any human device can be. All it needs is time to settle and a fair trial. It furnishes to the youth of the Province an education nearly free, it provides trained instructors for all schools, and further for their due supervision. It cannot perform miracles—it cannot ensure perfection, mental or moral, where nature has been niggardly in supplying the materials—it cannot make ladies and gentlemen, but it can, and no doubt does, afford help. But before there were systems there were schools and the master was both the system and the school. Knowledge of these we often get from other than purely scholastic sources. Shakespeare's description of the "Schoolboy with satchel

on back and shining morning face creeping unwillingly to school" presents a perfect picture. Equally true to nature is the gentle Goldsmith :

" Full well the boding tremblers learned to  
trace  
The day's disasters in his morning face ;  
Full well they laughed with counterfeited glee  
At all his jokes, for many a joke had he."

A genuine Celtic scene—a glimpse of the border land between laughter and tears, a vision of roguish eyes and love of fun. But how quickly he changes :

" Yet was he kind, or, if severe in aught,  
The love he bore to learning was at fault."

Now, it seems to me, after many years' experience and some reading, that inspiring the young minds with this love of learning is not only the primary but the ultimate end of all instruction. Methods of teaching have their place and function ; school books may be helps or hindrances, as they are wisely or unwisely employed ; psychology, which should teach the normal evolution of the faculties of children, merits the attention of intelligent, indeed, of all teachers, but unless a love for the subjects taught is bred in the hearts of the young the work is in vain. How many bright youngsters in school and college have become disgusted with the whole pedagogic process, have treated the curriculum with contempt and wandered off into "suburban lanes forlorn" : and of these not a few have achieved immortality. You cannot easily get a square peg into a round hole. More difficult still is it to run youthful minds through the same mould or machine with success. No two, probably, acquire knowledge in precisely the same way or by the same devices. The skilful and prescient teacher, when he finds a pupil, unaided, on the right road, withholds assistance and advice, preferring to encourage independent thought and action. His attention is given to the

laggard, the dull, the defective members of his class. Such a one is sure to reap his reward, if not in "filthy lucre," at least in an approving conscience and the gratitude of his pupils. The question, then, is how can we beteg in our young people this desirable love of knowledge ?

(1) First and chiefly, I answer by loving it ourselves. No teacher, who does not love learning himself, can hope to make his pupils love it. If the matter of salary is the be-all and end all of his labors, then his work will be comparatively fruitless. But if he is fond of learning there is no limit to his usefulness, no end to his beneficent influence.

(2) In the second place by the establishment and keeping up of good School Libraries. This was one of the first things to which I directed my attention in 1871. But I need not dilate on this topic. Everyone knows that good libraries make their possessors "the heirs of all the ages." Their value, will, of course, depend largely on the use that is made of them and the character of the teachers in charge.

(3) The Kindergarten is of great value in the early stages of school work, but we cannot hope to see it generally introduced.

Knowledge, we know, precedes wisdom, just as the sap precedes the sugar, which is its essence. This fact has been noticed by the dead Laureate, who early made a profound study of life and its environment.

" Knowledge comes, but wisdom lingers, and  
he bears a laden breast  
Full of sad experience, moving towards the  
stillness of his rest."

This short and imperfect paper cannot be better concluded than by a stanza from the same poet :

" Make knowledge circle with the winds ;  
But let her herald, Reverence, fly  
Before her to whatever sky  
Bear seed of men and growth of minds."

## THE CANADIAN PEOPLE.

*A Criticism of Some of their Social Peculiarities.*

NORMAN PATTERSON.

There is no doubt that the Canadian people believe themselves quite the equal of those of the United States and of Great Britain, and more than the equal of those of any other country on the face of the globe, and justly so. Some of the best blood of the British race flows in our veins; and our system of government, our social organization and our social habits are of a standard which is scarcely equalled in any country in the world. But the Canadian people are peculiar, and it is to some of these peculiarities I wish to draw attention, for as Principal Grant has well said, "The destiny of a country depends not on its material resources; it depends on the charter of its people."

## RELIGIOUS PECULIARITIES.

The Canadian people are religious and generous. They contribute liberally to the building of churches. In Quebec, the churches usually cost as much as all the other buildings in the town or village combined. In the other provinces, the people are not quite so extravagant, but the churches are numerous and creditable. In every part of Canada the preachers are well paid and highly respected. The people give generously to foreign missions, thousands of dollars being sent each year to Africa, India and China. Yet on the street corners of any Canadian city you may see a blind man begging, a one-legged patient individual with his crutch and tin cup, or a wrinkled old woman turning a wheezy hand-organ. The business streets are regularly patrolled by ragged, worn-out females, soliciting coppers or selling bone collar-buttons. Ian Maclaren tells the story of a woman

who went to the meeting of a "society to help the poor," in London, to seek a position. She was asked her name, address, age, number of children and various other particulars. She was then asked to pay a shilling for registration, and a situation would be hunted up for her. Poor woman, she had no shilling and could not secure help. We have the same spirit in Canada. We build large buildings to accommodate unfortunates and name these edifices after the men who donate the most money. But we initiate no system which will seek out the dying and the unfortunate, no system which will permanently rescue the fallen, no plan whereby the aged and the needy will be able to live without begging. A man will subscribe—with a flourish—a thousand dollars to foreign missions, and on the same day he will dismiss a man ten years in his employ, who has been earning but twelve dollars a week, without a thought as to how this man is to support his wife and five children. Truly we are a peculiar people.

## THE SPOILS SYSTEM.

Canadians claim to follow the rule, "the greatest good for the greatest number," and much of our legislation embodies that principle. We have excellent educational systems in the various provinces; not as well administered as they should be, but still doing a great deal for the common people. We have a splendid criminal code for the punishment of all crimes, except political crimes; we have good laws regulating commerce, and honorable judges to administer these laws. Nevertheless ninety per cent. of the discussions in parliament pertain to

subjects other than these. It is the good of the party which is considered, and not the good of the country. During its eighteen years in power, the Conservative Party filled all senatorial, civil service and judicial vacancies with men to whom the party was "under obligation," men of its own political stripe; and its whole aim during that period was to so arrange and compromise everything that it might retain power. The Liberal Party has had control just three years, but it has clearly shown that it is determined to give Conservatives a dose of their own medicine. Unnecessary bonuses, suspicious deals, surrenders to selfish capitalists, appointments of self-seeking politicians to important administrative positions, a ceaseless pandering to the desires of districts where the party wishes to strengthen its hold—there are the marks which show the Liberal party to be as careless of the general good as were its predecessors. Mark you, I do not mean that the Liberal Government has done no commendable actions. There are a few moves here and there which reflect credit upon them; but the balance is on the side of "power-seeking," not "general good."

#### LACK OF IDEAL CITIZENSHIP.

But another peculiarity of the Canadian people is that while essentially moral, they are encouraging political immorality. A citizen very seldom thinks of doing an evening's work on the voters' list, of assisting to organize the vote of his division, or of doing a day's scrutineering on behalf of a prospective alderman or a member of Parliament without pay from the candidate. The word citizen conveys no responsibilities to the mind of the ordinary voter. He sees no duty which he owes to the state. He owes his party a vote whenever called upon; and the party owes him a day's pay when he earns it, and a small job now

and again if he has "influence," or makes an occasional contribution for the good of the cause. The average earnest and thoughtful citizen rests at home in the bosom of his family, while his unthinking, less moral brother does the political work necessary in Canada to the making and unmaking of governments. We are all Canadians, but we often pay more attention to down-trodden Cuba or benighted China than we do to the country which gives us a name and a home. Because our duty to the state rests lightly upon us, our larger municipalities are in the hands of men of broad easy morals; our politics are controlled by small-minded self-seeking men who do not hesitate to bribe constituencies or to barter franchises. In neither provincial nor federal politics, does the average voter rise above party considerations when, with uncovered head, he approaches the ballot-box.

#### LACK OF FINER MORAL SENSE.

Nor are our women possessed of the highest moral sense. For example, one day, as I was riding home in a street car, a well-dressed lady and her daughter came aboard. The lady took out two yellow tickets and held them in her hand. The conductor passed her and repassed her. She didn't offer the tickets, and he didn't ask for them. As she got up to go out she smiled significantly at her daughter, replaced the two tickets in her purse, and gathering her magnificent skirt in one hand and her gold-handled umbrella in the other rustled her skirts through the aisle and down the steps.

If, in a store, a woman gets five cents more change than she should, why, it is a small thing, and she smiles complacently. If the clerk cuts her off half a yard more than he should, why that is her luck. No large dry-goods store in Canada can get along without private detectives—and the

persons they watch are not the need?

In her dealings with the prospective husbands of her daughters, a Canadian mother, especially a city mother, does not always insist on morality. She desires wealth and social position. The young man's moral nature may be utterly depraved, and his offspring sure to be tainted with moral weaknesses—but the mother accepts him if he has an income. She seldom considers possibilities, but always present conditions. Truly our mothers are lovable and worthy of all honor and admiration—but they are fond of the rustle of silks. They spend two thousand a year with scarcely a thought of their sisters who have but two hundred. To make their husbands M.P.'s they would sacrifice much; to bear the title "Lady" they would almost sacrifice honor itself.

#### PRINCES OF COMPROMISERS.

Walking along street with a young clergyman the other day, I was startled by the remark: "Our ministers do not need to compromise so much! They think they do, but they don't." That word compromise! Would that it were banished from the religious world, from our political life and from even our business life! There is too much compromise altogether. It has its basis in politeness, but the necessity does not justify one half of what exists. We compromise with evils and immoralities until they eat us up. And the princes of compromisers are the sleek, self-admiring, oratorical ministers of the gospel. These epithets exclude a number of my best friends, men who in a small but honest way are pursuing the prize of a high calling. The compromisers are the men who do not preach morals, but whose complex morality is printed on pages of eloquence and bound in pliable smiles, and whose sermons are literary essays fit to adorn

the pages of some nobleman's latest magazine.

#### STEALING MILLIONS.

If a city minister were to condemn stock gambling, political corruption, and the dozen other shady methods by which people amass large fortunes in a few years at the expense of their fellow-men, that pulpit would be vacant. Of course it never occurs to the minister to let it be vacant. So the immorality remains. A man respects another's property unless he can get it under cover of the law. For example, he may form a mining company and sell his "promoter's" stock at ten, fifteen or twenty cents on the dollar. That is called "able financing," and the more worthless the claim, the more able the financing and the more praise the man receives. The trusting but ill-informed public is never praised—not even pitied.

Or he may desire to build a railway. The cost will be \$8,000 per mile, and it may be bonded for, say, \$4,000; leaving a net investment of \$4,000 per mile of road. He goes to the Dominion Government and gets a grant through the influence of paid lobbyists. He then visits the Provincial Government with the seal of federal approval. He gets another grant. Then he repairs to the municipalities. Altogether he gets \$12,000 a mile. As the net investment is \$4,000, the profit is \$8,000. On a hundred miles there will be enough to give him a fair claim to the title of "millionaire." It is by just such means as these that most of the rich men of Canada have been made.

There are those who have made their money by hard work and persistent saving, but they are not quite so numerous, and they are never so prominent. It is a common occurrence to hear men remark over their pipes and whisky—men of the world who know—that to get rich to-day, a man



must have neither heart nor conscience. I have heard half-a dozen wealthy men give utterance to such sentiments.

" 'Tis true, 'tis pity ; and pity 'tis, 'tis true."

#### OUR YOUNG MEN.

But why go on in this somewhat doletful strain? The answer is another question, Why does the bird sing? It is given to certain men to preach the gospel of regeneration to their fellow-men, when inclination meets opportunity. Canada would not be wholly had if all the preachers and teachers and writers were banished. But she is the better of those she possesses—most of them. To write something which would give one young man a broader view of citizenship is a reward sufficient for any would-be teacher. To make a dozen young men THINK would be glory and honor.

For, after all, it is the young men in whom lies the hope of Canada's future greatness. There is always hope because there are always young men. Many of these will follow precedent, but a few will not. If the few are too few, our politics and our social life will become no better; but they will not degenerate greatly.

The young man who studies nothing but John Bunyan and the Bible may go to Heaven, but he certainly will not make the world much better for his having sojourned here. This is a day when citizens are required—citizens with a broad, understanding knowledge of what Canada was, is, and might be; citizens who will inquire as to what Canada requires of her sons; citizens who will study the history, the institutions, the literature, the political conditions of their native land. The man who exclusively pursues his own ends, his own purposes, and the almighty dollar is not a citizen. A citizen is a man of a higher, a nobler, a more un-

selfish type. To the citizen our poet Kernigan cries:

" Shall the mothers that love us, bow the head,  
And blush for degenerate sons?  
Are the patriot fires gone out and dead?  
Oh, brothers, stand to your guns!"

And Roberts also:

" Awake, my country, the hour of dreams  
is done!  
Doubt not, nor dread the greatness of thy  
fate.  
Tho' faint souls fear the keen, confronting  
sun,  
And fain would bid the morn of splendor  
wait;  
Tho' dreamers, rapt in starry visions, cry,  
' Lo, yon thy future, yon thy faith, thy  
fame!'  
And stretch vain hands to stars; thy fame is  
nigh,  
Here in Canadian hearth and home, and  
name."

We may have telephones and electric railways, Pacific cables, fast Atlantic steamboats, miles of canals, hundreds of cabinet ministers, scores of companions, knights and baronets; but if we have not a patriotic citizenship we shall not last. Commerce alone never made a nation great.

#### THE DIM FUTURE.

It is becoming clearer that if Great Britain is to maintain her supremacy among the nations she will have to be regenerated from the fresher blood of the colonies. If this is the destiny of Canada's greater sons, we should be prepared for it. If we are to become a part of the greater Anglo-Saxon unity, the northmen will be needed to reorganize and purify the body politic of the south. If this is the destiny of Canada's greater sons we should be prepared for it. If we are to build up on the northern half of this continent a new Britain, with the maple leaf flag proudly floating above it, we must breed and bring forth citizens whose excellence cannot be measured in dollars. If this is the destiny of Canada's sons, let them anoint themselves with wisdom.—*The Canadian Magazine.*

## TRANSFORMED AFRICA.

MRS. FREDERIC R. HONEY.

The study of the history of any country will show that its development is closely connected with its natural physical conditions, its position, and its configuration—in short, with its geography. And a glance at the geography of Africa, as revealed by modern explorers, explains the surprising fact that the interior of this great continent, lying in the pathway of ocean travel and within sight of Europe, should have remained a sealed book until the nineteenth century had left youth behind. Egypt, it is true, was in the forefront of an-ient civilization, and northern Africa shared in the vicissitudes of early European history as a part of the European system, washed as it is by the waters of the Mediterranean, the "Great Sea," once the highway of commerce for the civilized world. But Egypt is only a narrow belt, intersected by the Nile; and northern Africa was cut off, as it is today, for all practical purposes, from the rest of the continent by the impassable barrier of the Sahara.

Elsewhere than in the north, African geography is peculiar, and of a character calculated to discourage the explorer who seeks new lands for settlement by civilized men. It is estimated that a full half of the continent is occupied by deserts, and by infertile lands approximating to the desert character. Around the coasts, where good harbors are few and far between, lies a belt of lowland from 100 to 300 miles in width, where malarial fevers of all kinds prevail; in some parts the white man is a sure prey to tropical disease. From this low belt the land rises steeply in a succession of terraces to the central plateau, which in the south and east attains a great elevation; far less than that of central Asia, but quite high enough to be a hindrance to the

migration of newcomers, which naturally follows the lines of least resistance. In most regions of the world the rivers form natural highways by which a country can be entered and explored; but African rivers are rendered impassable by rapids as they descend from the elevated plateau to the lowlands of the coast. What wonder, then, that the traveler who found himself barred from access to the interior, turned his back on Africa and sought more hospitable lands?

The configuration of Africa is thus the key to its history; for the inaccessibility of its highlands and its unhealthy coast, combined with its tropical situation, have contributed to the late settlement of European colonists. But these obstacles are no longer effectual hindrances; and under the impetus of a need for colonial expansion on the one hand, and of political rivalry on the other, European influences have now taken firm root.

Our maps show that seven European Powers have claimed a share in Africa; but, for the present, little interest attaches to five of these. Germany's occupation is very recent, and has been attended by no striking incidents; while Spain and Italy, in their small coastal territories, chiefly lowland, are inert and unprogressive. Portugal has a long coast line, but she has neither the wealth nor (apparently) the energy necessary for the development of the healthier "hinterland" in which colonies might be planted—notwithstanding the hopeful and ambitious utterances of her statesmen respecting the future. Her ports of Beira and Delagoa Bay, on the east coast, are mainly used by foreign nations for their own commercial purposes. The day may come when these countries will give a better ac-

count of their stewardship ; if they fail to do this, their inheritance will probably be absorbed by those who prove themselves more capable administrators. The Congo State, under Belgian control, occupies the fertile basin of the second largest river system in the world, once the bed of an inland sea. It is still in the initial stages of development, but steady progress may be expected, now that a railway has connected the coastal lowlands with the Congo River above the rapids which render it unnavigable as it descends from the interior plateau to the Atlantic through a channel from four to eight miles in width. The future of the Congo State may be great, but for the present the British and French possessions are of more general interest.

The sphere of Great Britain lies mainly in South and East Africa, and includes the greater portion of the subtropical lands which are favorably situated for European settlement. It is fortunate for Great Britain that her occupation began thus at the south, whence the natural line of expansion was along the elevated axis of the continent, whose general direction is north-east, towards the shores of the Red Sea. Commencing with a modest colony at the Cape of Good Hope, which was ceded by the Dutch in 1814, her boundaries gradually extended by ordinary processes of growth, including Natal and Zululand on the coast, and Bechuanaland on the north. The sudden appearance of Germany on the stage of African affairs in 1884 hastened the apportionment of such parts of the continent as were not already under European influence, and Great Britain's African frontier was pushed rapidly forward. Although the great acquisition, known as Rhodesia or Charterland, has only recently come under her flag, a railway already penetrates many miles into the heart of the country, which five years ago was under the rule of barbarous tribes. Its boundaries skirt the western shores of Nyassa, one of the lakes which form so remarkable a feature of East Africa, and touch the southern point of the long, narrow Lake Tanganyika, on which navigation is free to all nations. Two hundred miles beyond the northern point of this lake lies Uganda, a district of British East Africa, bordering on the great Victoria Nyanza, the source of the White Nile and second only to Lake Superior among inland fresh-water seas. Thence along the Nile the British power predominates without interruption through the Sudan, the scene of Lord Kitchener's recent overthrow of the Dervish forces, and through Egypt, which is virtually under a British protectorate.

A British railway "from Cairo to the Cape" was regarded not long ago by sensible people as an extravagant fancy, conceived in the brain of an enthusiast. Large sections of such a railway, however, already exist in North and South Africa, and a space of only 500 miles in the centre of the continent separates the British territories in which it can be constructed when commercial necessities or the protection of the country demand it. The surface of this wide belt of land varies greatly. There are desert spaces in the south and west, infertile lands where cattle raising is the only profitable agricultural industry, mining districts awaiting development, the famous diamond fields of Kimberley, lowlands in river basins and on the coast, where the prolific soil breeds malarial disease, but the greater portion, south of the Sudan, is on a plateau of moderate elevation, sufficiently watered, where the climate permits white races to make a permanent home and produce the necessaries of life.

Quite different are the British settlements in West Africa. These lie in the basin of the river Niger, where the climate is tropical, and the elevation above the sea is comparatively low. This region has so often proved fatal

to Europeans that it has earned the name of "The White Man's Grave." Yet here are officials, traders, and missionaries; and so important are the commercial possibilities of the country that Great Britain and France hold firmly to the shares which each has respectively acquired, and Germany has claimed and secured a section for future development.

The French sphere lies in the north of Africa, where, beyond the coastal region of Senegal, the fertile and populous basin of the upper Niger, and the province known as the French Congo, her power predominates over two million square miles of—sand and desert. Algeria, on the Mediterranean coast, was won by forty years of fighting with Arab tribes, and has now an orderly government; but, notwithstanding the beauty and charm of the maritime portion, the desert character of the "hinterland" forbids profitable expansion. Nor, even were the country fitter for settlement by Europeans, are the French successful colonizers. Their brilliant imagination, enterprise, and courage fit them better for conquest than for commerce or colonization, as is demonstrated by the history of the past. They are enthusiastic explorers, and dream of future control of the northern half of the continent, from Senegal to the Red Sea, including the basin of Lake Chad at the south of the desert and the upper part of the Nile valley. Suggestions have been made for moderating the climate of the waste region, and for promoting commerce by providing it with water communications. The Sahara was once the bed of a salt lake, and it is proposed to re-open the connections with the Mediterranean which nature has gradually closed, and thus transform a part of the desert into an arm or inlet of the sea. This sounds chimerical, but what may not the twentieth century see? Meanwhile, with praiseworthy skill and industry, efforts are being made to redeem in part the desert barrenness;

oases are cultivated, and are even created by boring for water, which is generally found near the surface, by planting palm trees, and by encouraging vegetation. Yet France has no surplus population to provide for, and the most ardent colonizers could not settle in such a region of tropical heat and aridity. A few roving explorers, and the necessary military and civil officials, constitute the white population of the quarter of Africa over which the tricolor floats, except in the maritime provinces of Algeria and Tunis.

The degree of authority exercised over these vast European possessions differs as much as does the character of the soil. There are regularly organized colonies with representative governments, there are crown colonies, with a less degree of independence, there are chartered companies, which are in fact colonies in process of formation, there are protectorates, military ports, native states, and "spheres of influence", and the administration of law and justice varies in each of these. In forming a judgment of their internal condition and management, they should not be compared with countries inhabited for generations by races with whom law and order are traditionary and hereditary, but with the state of things which existed in Africa fifty years ago. And it should be remembered that the whites are as yet but a small minority of the population, even in the older settlements. Rough and ready as the methods of administration may be in districts where white men are still pioneers, the standard of justice—as Christianity and civilization demand that it should be—is incomparably higher than the tyranny of force exercised by the native tribes when their power was unbroken. No less a result could justify the experiments which are now being tried on so large a scale and with such keen competition by European nations in Africa.—*Mechanics' Arts Magazine.*

## THE PEDAGOGIC VALUE OF THE HISTORY OF PHYSICS.\*

FLORIAN CAJORI, Colorado College.

"The education of the child must accord both in mode and arrangement with the education of mankind as considered historically; or, in other words, the genesis of knowledge in the individual must follow the same course as the genesis of knowledge in the race." Such has been the teaching of theorists like Comte and Spencer; such has been the conviction of teachers like Pestalozzi and Froebel. This doctrine is far from self-evident, but if it applies to physics, then certainly the history of the science should receive greater attention.

Professor Ostwald of the University of Leipzig, the editor of the *Classics of the Exact Sciences*, emphasizes the importance of the history of science as follows: "While . . . the knowledge of science as it now exists is being imparted successfully, eminent and far-sighted men have repeatedly been forced to point out a deficiency which too often attaches to the present scientific education of our younger talent. It is the absence of the historical sense and the want of familiarity with the great researches upon which the edifice of science rests."

Thus great writers on the philosophy of education as well as eminent scientific investigators have, in a general way, pointed out the value of a knowledge of the progress of science. The practical teacher will ask himself the practical question, exactly in what way will a knowledge of the history of physics aid in elementary teaching?

In the first place, a knowledge of the struggles which original investigators have undergone leads the teacher to a deeper appreciation of the difficulties which pupils encounter. The differ-

ence between mass and weight is a stumbling block to beginners, and the instructor's patience is often taxed to the utmost. The great originators of mechanics—Galileo, Descartes, Leibnitz, Huygens—had no clear notion of mass. Weight and mass were taken interchangeably; the two terms meant one and the same thing. That there is a distinction between the two began to dawn upon the minds when it was discovered that the same body may receive different accelerations by gravity on different parts of the earth's surface. When Jean Richer in 1671 went from Paris to Cayenne in French Guiana to make astronomical observations, he found that his pendulum clock, which in Paris kept correct time, fell daily two and one half minutes behind mean solar time. It was shortened, but after his return to Paris it had to be let out again. The distinction between mass and weight was clearly perceived by Newton in his extension of the laws of dynamics to heavenly bodies.<sup>1</sup> On the same spot of the earth mass and weight are proportional to each other. This is not a self-evident fact; Newton proved it in course of a splendid series of tests on the pendulum. He says in his *Principia* (Book II, Prop. XXIV, Cor. 7): "By experiments made with the greatest accuracy I have always found the quantity of matter in bodies to be proportional to their weight."

That the difficulties which students encounter are often real difficulties such as the builders of the science succeeded in overcoming only after prolonged thought and discussion can be exemplified in many ways. Take the laws of motion, the true nature of

\* Read before the Colorado Science Teachers' Association, May 7, 1898.

<sup>1</sup> MACH, *Science of Mechanics*, transl. by T. J. McCormack, 1893, pp. 161, 251.

"centrifugal force," the difference between force and energy, the explanation of the "force of suction," the difference between electric and magnetic phenomena, where is the teacher who, by a knowledge of the struggles undergone by the master minds, will not be impressed by a deeper sympathy with students who encounter "hard points" and are at first unable to master them? More than this, the way original thinkers leveled the barriers often suggests to the teacher good methods for removing those of the pupil. The pendulum at Cayenne was acted upon by forces to a less degree than at Paris, yet its mass was the same in both places; the mass was the same, but the weight was different.

While to the instructor the history of science teaches patience, to the pupil it shows the necessity of persistent effort. Newton began to think of gravitation in 1666, but that coquettish maiden, the law of inverse squares, long eluded him. Jacob waited for Rachel twice seven years; Newton waited for his Rachel nearly thrice seven years.

A third lesson to be drawn from historical study is *the necessity of checking speculation and correcting our judgment by continual appeal to the facts, as determined by experiment.* This lesson is as important to the young pupil as it is to the original investigator. Many a young girl first entering the laboratory is afraid of deadly shocks from a harmless Leclanché cell. Let not the teacher attribute such preconceived notions to stupidity. Able minds have made just such mistakes. The great logician, Aristotle, walking up and down the paths near his school in Athens, came to the conclusion through some involved process of *a priori* reasoning that bodies fall quicker in exact proportion to their weight.<sup>1</sup> If it had only occurred to him to pick up two stones of unequal mass, and

then drop them together, he could easily have seen that the one of, say ten times the mass did not descend ten times faster. The experiment was omitted, and Aristotle never found out his error. Nor did the readers of his books for two thousand years, until finally Galileo ascended the leaning tower of Pisa and dropped iron balls of different weights to show that a light ball will fall with the same velocity as a heavy ball.

Another conspicuous instance of a great man whose judgment was untrained by habitual appeal to the facts was Descartes. When the Copernican theory was under discussion it was claimed by many that, if the earth rotates and bullets are fired vertically upward, they must strike the ground far to the westward. Mersenne and Petit in France tried the experiment. But they were perplexed by an unexpected occurrence. They could not find their bullets at all! Descartes, the great French oracle of the time, was consulted, and he seriously replied that the bullets had received such intense velocity that they lost their weight and flew away from the earth. Such an absurd reply could never have come from experimenters like Galileo or Newton.

Another point which I desire to make is that *the history of science demonstrates the utility of the pedagogical theory according to which the pupils in the laboratory should be made to re-discover the laws of nature.* If ever a teacher undertakes an impossible task, it is he who expects to bring his pupils to the point where they, in eight or nine months, will achieve what Galileo, Gilbert, Boyle, Guericke, Newton, and a host of others, by their united strength, have thought out only after a lifetime given to scientific work. In impracticability this Utopian scheme surpasses all others. Sir Thomas More was outclassed by him who originated this pedagogical theory.

<sup>1</sup> *De Coelo*, Book III., chap. 2.

Can we expect our students to discover the law of refraction, *i. e.*, the law that the ratio of  $\sin i$  and  $\sin r$  is constant? To be sure, we may let the student measure the angles of incidence and refraction and he will, perhaps, obtain the following data:

Angle of incidence:  $0^\circ$ ,  $12^\circ$ ,  $20^\circ$ ,  $40^\circ$ ,  $60^\circ$ ,  $70^\circ$ .

Angle of refraction:  $0^\circ$ ,  $9^\circ$ ,  $15^\circ$ ,  $28\frac{1}{2}^\circ$ ,  $41^\circ$ ,  $45^\circ$ .

From the first three pairs, says Dr. Recknagel in the *Zeitschrift f. Math. Unterricht*, the pupil might infer that the index is 4:3 and is simply the ratio of the angles. But the last three pairs of angles show that the guess is wrong. However, "the right law is soon drawn out by questioning" (*herausgefragt*). No doubt it can, if *leading questions* are put, but usually in no other way. Let not the teacher be misled into the belief that by leading questions put to his pupils, he has gotten them actually to discover the law for themselves; they have merely taken the hint given them; they have *verified* the law, but not *discovered* it. We are not criticising the mode of procedure pointed out by Dr. Recknagel, but we object to the conclusion that the pupil has been led to make a discovery. History teaches us that four great scientists, whose minds had been richly endowed by nature and trained by years of scientific effort, endeavored to discover the law of refraction and *failed*. Ptolemy, one of the two greatest astronomers of antiquity, Al Hazen, the greatest Arabic physicist, Witelio, a prominent writer of the thirteenth century, and Kepler, the discoverer of "Kepler's Laws," vainly tried to establish the exact mathematical relation between the angles of incidence and of refraction. Can, therefore, youths with untrained minds accomplish on the spur of the moment what Ptolemy, Al Hazen, Witelio, and Kepler could not do after years of study? By chance

they might, but only by chance. As a rule, the theory that the pupil should be made to re-discover the laws of nature leads either to failure or to deception. With even the brightest and maturest minds, discovery is largely a matter of accident. The history of science clearly proves this. The great Huygens recognized this when he said that a man capable of inventing the telescope by mere thinking and application of geometrical principles, without the concurrence of accident, would have been gifted with super-human genius. In the school-room we cannot *wait* for such accident, though we should try to profit by it, if it does come.

I have pointed out how the history of physics disproves a certain pedagogical theory, how it shows the desirability of holding speculation in check by experimentation, how it emphasizes the necessity of patience on part of the teacher and perseverance on part of the student. I might have spoken of the great liberalizing effect of the view which it affords of the development of the human intellect. But with the practical teacher all these considerations dwindle into insignificance as compared with the aid to be derived from history as a stimulant, as a means of exciting interest. If a teacher creates a living interest in a subject, all other difficulties vanish. Before the introduction of the modern physical laboratory, physics was almost always a subject disliked by students. Even now it is not always popular. The number of students electing laboratory work at the University of Cambridge under James Clerk Maxwell was always small, Ritchie at the London University had comparatively few students. Biot in Paris had often not above half a dozen. Any remedy against such a condition of things must be hailed with joy. Of course, as Rowland says, "Some are born blind to the beauties of the world

around them, some have their tastes better developed in other directions, and some have minds incapable of ever understanding the simplest natural phenomenon; but there is also a large class of students who have at least ordinary tastes for scientific pursuits." Students of the last class may be drawn closer to physics by good laboratory courses and by an acquaintance with the great minds who developed the science.

Of course, historical matter is not to replace laboratory practice, or the discussion of theory; nor do I mean that elementary classes, whose time for the study of physics is already too limited, shall be burdened with a long and systematic course on the history of physics. Introduce historical matter incidentally and skilfully, and you will find it to be the honey which renders the bread and butter more palatable. Where is the student of physics who will not be fascinated by the experiments on air-pressure by Otto von Guericke and the illustrations accompanying the text? Here is a picture of fifty men pulling by ropes and vainly struggling to overcome the atmospheric pressure against one piston. There is an engraving representing eight pairs of horses, four pairs on each side, pulling for all they are worth to separate two huge Magdeburg hemispheres. It is of interest to know that Robert Boyle would probably not have discovered the law bearing his name except for an absurd criticism made on some of his earlier researches by a would-be physicist. Linus, professor at Lutich in Netherlands, declared that the air is very insufficient to perform such great matters as the holding up of a mercury column twenty-nine inches high; he claimed to have found that the mercury hangs by invisible threads (funiculi) from the upper end of the tube and to have felt them when he closed the upper end of the tube with his

finger. This criticism incited Boyle to renewed research and led him to the discovery of his law.

Again, let the student be drawn into the confidence of the historian and laugh with him at the undignified behavior of the Carthusian monks. In Paris a large number of them were formed into a line 900 feet long, "by means of iron wires . . . between every two," and then Louis XV. caused an electric shock from the newly invented Leyden jars to be administered to them. The whole company of austere monks, at the same instant of time, gave a sudden spring, and presented a sight decidedly ludicrous.

Quaint theories and hypotheses, now long forgotten, often possess peculiar charm. When the pupil has acquired some knowledge of the spectrum, can he fail to be interested in some of the speculations of Newton? How Newton carried on his experiments, not in a public laboratory, but at his chamber in Cambridge; how he introduced light into the darkened room through a small circular hole, passed it through a prism, and then beheld the display of colors on the wall. "Comparing the length of this colored spectrum with its breadth", says Newton, "I found it about five times greater; a disproportion so extravagant that it excited me to a more than ordinary curiosity of examining from whence it might proceed."

Newton showed that this phenomenon was due to the fact that some rays are more refrangible than others, but before he hit upon the right explanation he advanced several hypotheses, only to find that each was disproved by the facts. One of these guesses is of particular interest, as it shows that Newton's profound mind had dwelt upon a subject prominent in modern athletics, namely, the subject of "curved pitching." Surely the modern student would find it hard to

<sup>2</sup> *Phil. Trans. Abr.*, Vol. I. p. 128.



gues what possible relation might be supposed to exist between the performance of a twirler on the diamond and optical theories. Newton said, "Then I began to suspect whether the rays, after their trajectory through the prism, did not move in curve lines, and, according to their more or less curvity, tend to divers parts of the wall, and it increased my suspicion when I remembered that I had often seen a tennis ball, struck with an oblique racket, describe such a curve line." Newton's idea was that the little particles supposed to constitute light received a circular motion in passing through the prism, and, meeting resistance in the ether, would curve around during their passage from the prism to the wall. Some particles receive a greater rotation and curve around more than others. Those bending around farthest constitute the violet rays; those deviated least make up the red rays.

Will students be interested in details of this sort? So far as I know, the testimony of teachers who have tried

is unanimous. The pupil begins to feel that he has a personal acquaintance with the great men of science. He is charmed with reminiscences about them, with their hopes, struggles, disappointments. They appear to him no longer as irresistible, superhuman heroes, but as human beings, liable to perplexity and failure. During this historical reading the pupil unconsciously acquires a greater mastery of the subject itself. Not infrequently the enthusiasm of the investigator is transmitted to the pupil.

Plutarch tells us that Archimedes was continually accompanied by an invisible siren whose bewitching music caused him to forget the troublesome affairs of life, and inspired him for the study of great themes and the discovery of truth. The same siren melodies have charmed Galileo, Newton, Fresnel, Helmholtz. Let our pupils get closer to these master-minds, and they, too, though only feebly, perhaps, may be brought under the enchanting spell.

—*The School Review.*

## A PSYCHOLOGICAL AND ANTHROPOMETRICAL STUDY.

ARTHUR MACDONALD, WASHINGTON, D.C.

After the measurements had all been made the teachers were requested to mark the pupils *bright, dull, or averaging* in general, and also to mark them in those special studies in which they were *bright, dull, or average*; and when in doubt to mark them *average*, so that there might be less liability to error.

It may be objected that the teachers would tend to select the *bright* rather than the *dull*. After careful enquiry, we do not think this was the fact.

A resumé of measurements of Washington children, and of measurements of children in Europe. By Arthur MacDonald, Specialist in the United States Bureau of Education at Washington, D.C.

But admitting it for the sake of argument, the teachers then might place *more of the dull than of the bright* under the head of average. But even in this case our main purpose would be served, which is to compare the *bright* and *dull*.

We give below the conclusions from our investigations of the Washington school children:

### CONCLUSIONS AS TO 1,074 CHILDREN SPECIALLY STUDIED.

1. Dolichocephaly, or long-headedness, increases in children as ability decreases. A high percentage of

dolichocephaly seems to be a concomitant of mental dulness.

2. Children are more sensitive to locality and heat on the skin before puberty than after.

3. Boys are less sensitive to locality and more sensitive to heat than girls.

4. Children of the non-laboring classes are more sensitive to locality and heat than children of the laboring classes.

5. Colored children are much more sensitive to heat than white children. This probably means that their power of discrimination is much better, and not that they suffer more from heat.

#### CONCLUSIONS AS TO ALL THE SCHOOL CHILDREN.

6. As circumference of head increases mental ability increases. (1.)

7. Children of the non-laboring classes have a larger circumference of head than children of the laboring classes.

8. The head circumference of boys is larger than that of girls, but in colored children the girls slightly excel the boys in circumference of head.

9. Colored girls have larger circumference of head at all ages than white girls.

10. An important fact already discovered by others is that for a certain period of time before and after puberty girls are taller and heavier than boys, but at no other time.

11. White children not only have a greater standing height than colored children, but their sitting height is still greater; yet colored children have a greater weight than white children—that is, white children, relatively to their height, are longer bodied than colored children.

12. Bright boys are in general taller and heavier than dull boys. This confirms the results of Porter.

13. While the bright colored boys

(1.) It being understood that the race is the same.

excel the dull colored boys in height, the dull excel the bright in sitting height. This seems to indicate a relation or concomitancy of dulness and long-bodiedness for colored boys.

14. The pubertal period of superiority of girls in height, sitting height, and weight is nearly a year longer in the laboring classes than in the non-laboring classes.

15. Children of the non-laboring classes have, in general, greater height, sitting height, and weight than children of the laboring classes. This confirms the results of investigations by Roberts, Baxter, and Bowditch.

16. Girls are superior to boys in their studies (but see conclusion 19).

17. Children of the non-laboring classes show greater ability in their studies than children of the laboring classes. This confirms the results of others.

18. Mixture of nationalities seems to be unfavorable to the development of mental ability.

19. Girls show higher percentages of average ability in their studies than boys, and therefore less variability. This is interpreted by some to be a defect from an evolutionary point of view, but see conclusion 16.

20. As age increases brightness decreases in most studies, but dulness increases except in drawing, manual labor, and penmanship; that is, in the more mechanical studies.

21. In colored children brightness increases with age, the reverse of what is true in white children.

#### CONCLUSIONS AS TO CHILDREN WITH ABNORMALITIES.

22. Boys of the non-laboring classes show a much higher percentage of sickliness than boys of the laboring classes.

23. Defects of speech are much more frequent in boys than in girls.

24. Boys show a much greater per-

centage of unruliness and laziness than girls.

25. The dull boys have the highest per cent. of unruliness.

26. Abnormalities in children are most frequent at dentition and puberty.

27. Children with abnormalities are inferior in height, sitting height, weight, and circumference of head to children

in general.

There were measured 20,000 children in all. For tables of measurements, for diagrams and other data, upon which the above conclusions are based, the reader is referred to a work (by the writer) entitled "Experimental Study of Children," which will be published by the U.S. Bureau of Education.

### EDITORIAL NOTES.

Deliver not the tasks of might  
To weakness, neither hide the ray  
From those, not blind, who wait for day,  
Tho' sitting girt with doubtful light.

"That from Discussion's lips may fall  
With Life, that working strongly, binds—  
Set in all lights, by many minds,  
So close the interests of all."

We have much pleasure in stating that Professor Clark, one of our valued contributors, has been made President of the Royal Society of Canada. Professor Clark belongs to a succession of eminent men, among whom are numbered Sir W. Dawson, Principal Grant, Sir John Bourinot, Premier Marchand and Mr. Keefer, and is the first Anglican clergyman who has attained to this distinction.

The usual periodical revision of the curriculum of the University of Toronto, has been made by the Senate, and the course of studies for the next five years at the Provincial University is now published. The part which concerns the secondary schools is that portion of the curriculum bearing upon the Matriculation examination.

School-masters generally, we have very good reason to believe, will be pleased to see that there is in the new curriculum a distinct recognition of the essential difference between a candidate writing for a Teacher's Certificate and a candidate writing for Junior Matriculation. Because, we take it, the Education Department cannot accept, in any form, the stand-

ard fixed by the Senate for Junior Matriculation as its standard for Teachers' Certificates in such subjects as English Grammar, Arithmetic and Mensuration. The teacher must know thoroughly the three R's at least. We expect much good to follow from this feature in the new Course of Study. Matriculants will be better prepared for the college work and teachers will be made to recognize that, in order to be a teacher, not only is careful and wide reading necessary, but also maturity of judgment. School-keeping is not for youths and maidens; this every parent knows. This far we are at one with the revisers of the curriculum.

For the future, so far as the words of the curriculum show, the standard for admission to the University in Arithmetic and Grammar is to be about the same as that to the High Schools. Apparently, the intention of the Senate is to revert to the practice of former years and have a paper set in Arithmetic to undergraduates of the first year.

We do not think that our secondary schools earned this compliment at the hands of the Senate. It was not, and is not, the fault of the High Schools

of Ontario that the operation of the device of dividing the Matriculation Examination into two parts is harmful to the best interests of education, is ruinous to the rational development of the youth of Ontario. And, we submit, that the evil results of this ill-considered device should not be allowed to fall upon the High Schools.

There are several ways of relieving the abnormal pressure which exists in our secondary schools, and which is largely owing to the unwise arrangements of subjects in our scheme of many examinations.

It is said that the reduction made in the work required of matriculants by the revised curriculum amounts to 25 per cent. of the old curriculum. For such a reduction we were quite unprepared. The only subject against which we heard any complaint was the Latin, viz, that there was too much text required of candidates. But not a word did we hear in regard to any other subject.

And no reduction, certainly, should have been made in English. We are an English-speaking people: kind readers, excuse the reference, we ought to know and understand our mother tongue.

Not many years ago there was quite a discussion on the subject whether it would not be advisable to shorten the time of attendance at the University to three years, thus giving the candidates the opportunity of covering the first year work in their High Schools. What has caused the abandonment of an ideal standard for our schools? We will be pleased to hear from some member of Senate giving reasons, or some reason for the change of policy.

There are several other questions involved in the revised curriculum which invite discussion, but we must wait the action of the Education Department before referring to them.

The first of our Empire Days has passed off with considerable *eclat*, the celebrations giving promise of their extension throughout every part of the British dominions in the years to come. As usual there has been a little "fluttering in the doves-cots" of the would-be critical as to the origin of the movement, but what true Canadian Briton cares where the idea came from as long as he can bear witness to its realization? To the Hon. Dr. Ross is due the honor of giving the idea an impetus, while to Montreal is due the honor of celebrating the inauguration on the largest and most attractive scale. The cities of Toronto, Halifax, and Quebec were not behind hand, and in another year we have every reason to believe that every school in the land will celebrate the day in a fitting manner. An Empire Day literature has already entered upon its course, and its volume will no doubt continue to swell from year to year.

It seems at times, from the standpoint of the patriotic educationist in Canada, a misfortune that Dominion Day should fall upon a *non dies* of the school year. There is not the fervency about our "First of July" that there is about the "Fourth of July" of our neighbors, and it is somewhat of a damper upon the celebrations of such national holidays as the Queen's Birthday and Dominion Day, that the French-speaking inhabitants of Canada take little or no part in the rejoicings. The first two are proclaimed public holidays, but beyond the closing of the banks and the public offices and a few of the business places, one would hardly know in some of our towns that the patriotism of a people was being celebrated. These public celebrations are an education to the young and if they

are neglected some reason ought to be advanced why they are neglected, in order that no element of a national hypocrisy may creep into the political and social tendencies that are said to be moving Canada as a community nationwards. If our Dominion Day had fallen in June or in September, there might have been more of a hastening toward its fuller celebration through the influence of our young people let loose from their scholastic obligations for the day. The general celebration of Empire Day on the school premises and within the limits of school duties may train our young people to favor a fuller celebration of Dominion Day, and by and by the whole of Canada, English-speaking province and French speaking province, will rejoice without any seeming hesitancy over the eventful day which saw us made one people.

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We give ready welcome to the *Educational Journal of Western Canada* as another of the several provincial periodicals devoted to education. The provincial interest is not likely ever to suffer from the cultivation of these wider sympathies that would make a nation of our common country. The later role of the CANADA EDUCATIONAL MONTHLY is to bring the teachers of the Dominion into closer alliance with one another. Education is cosmopolitan; but the local coloring must be preserved if the picture is to be complete, and hence we feel that there has been a happy rounding out of our educational interests by the appearance of the new journal. The Maritime Provinces are locally represented by the *Educational Review*, the Province of Quebec by one French and one English periodical, and Ontario by the *Canadian*

*Teacher*, and now that the western provinces have also their local exponent of educational progress, there is room for congratulation and encouragement. The support given to these journals and our own is an immediate answer to the statement that Canadian teachers care less for professional investigations and professional reading than those of other countries. The teacher who does not keep *en rapport* with what is going on in educational circles misses the great incentive to further experimenting in class work and in the improvement of methods; and to keep up with the times in this respect our teachers have to read, not one, but several periodicals which refer directly to their calling. THE EDUCATIONAL MONTHLY endeavors to cultivate a constituency extending from Nova Scotia to British Columbia, and it is no news to our readers that we have never been discouraged in our task by provincial prejudices.

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From the first we have done what we could to further the interests of the Dominion Educational Association, and have had the hope that the influence of that body would extend in Canada as the N. E. A. has in the United States, the N. U. T. of England, or the Teacher's Institute of Scotland, with its deliberations form not only a Canadian pedagogic in itself, but make of the society a professional power to protect as well as expand our educational interests. Many have felt that it should hold its conventions at least once every year, as do the other bodies just mentioned, though in the exigencies of its earlier experiences it was not considered wise to have its conferences more frequent than once in two years. Since its organization it has, however, had only one convention directly under

its own auspices, and when our teachers hear that between the Halifax convention and the Ottawa convention there is likely to be an interval of three years, something like despair is expressed that the association is even likely to become more than a mere meeting place of pedagogical courtesies, and educational congratulations. The transactions of the Halifax meeting, we are told, have not been issued yet, and by the time they do appear it is possible that all interest in the proceedings will have died out. This is unfortunate, but if the next convention is not to be held till 1901, nothing can be gained by complaining over the delay. The Dominion Educational Association, some one has said, wants a more active policy to be of much general service to the community; and it is our opinion that, were its meetings held annually, a "more active policy" would very soon come to it as a gift from the educational activities that prevail in our provinces, until, borrowing strength from every current educational movement, it would finally become the influence it should be, though, perhaps, it might not fulfil to the complete letter the intentions of its earlier organizers.

Another educational movement the EDUCATIONAL MONTHLY has advocated has been the organization of a general Education Bureau for the Dominion. This is a national movement in which the Provincial interest has no chance of suffering; and we are glad to learn from the newspapers that some progress has been made towards its realization. From the *Ottawa Citizen* we learn that a deputation from the Dominion Educational Association of Canada, consisting of Hon. Dr. Ross, Minister of Education; Dr. MacCabe, President of the above Association;

Dr. Harper, from Quebec, and Mr. Hay, from the lower provinces, lately waited upon the Premier in regard to the organization of a Central Bureau of Education for Canada. Sir Wilfrid Laurier received the deputation with his usual urbanity, and listened with the greatest of interest to the representations made by the gentlemen entrusted with the explanation. A memorial was placed in the Premier's hands setting forth the objects of such an organization, and the deputation left highly pleased with their reception, and with the promise that the matter would receive due attention at the hands of the Government. And thus has one of the most important educational movements in Canada been introduced to the notice of our statesmen. There will be opposition no doubt, as there is always opposition to every great public movement; but the day is gone when any man may stand up in Canada, even in the most obscure hamlet, and say, "I object to this thing, and refuse to give my reasons." Even the man who turns his back on the Empire Day notion, or who refuses to join in the national mirth of a Dominion Day, has to give some reason to his neighbors for his conduct; and, if there be any educationists amongst us who, while neglecting to advance arguments in support of their opposition to what will promote Canadian unity, at the same time refuse to acknowledge their prejudices against Canada as a British colony developing nationwards, then the opposition they endeavor to stir up need not alarm any one. The promoters of the Educational Bureau project have advocated it from purely patriotic motives, and they deserve well of the country for their action in bringing the question prominently before those who, from their official posi-

tion, can work out its fuller realization.

In this connection we note the ambition of the city of Montreal to have the N.E.A. of the United States meet within its limits in the year 1900. Toronto has had the honor of being the host of that mammoth convention, and there is no reason why the commercial capital of the Dominion should not enjoy the same honor if it be willing to pay for it. At the Toronto meeting the preliminary steps were taken towards the organization of our own Central Association, and should the Montreal delegates to Los Angeles be successful there is no reason why the Dominion Educational Association should not hold a sitting or two for the transaction of business while our teachers are in attendance at the Convention of the National Educational Association. Better this than that there should be an intermission of three years between the conventions of the Dominion Association.

The approaching convention of the Protestant teachers of the Province of Quebec is one which may prove a turning point in the career

of the Quebec Association. We have not thought it right to refrain from referring to some of the indirect methods of those who would make what they would of that body's deliberations; in their aspirations to secure office and personal influence. The wrong-doer is nearly always illogical enough to decry the individual who draws attention to his wrong-doing. In pointing out the ridiculously unconstitutional action of some of our Quebec brethren we acted a part which we are prepared to act again, no matter where such conduct is to be found—in local, provincial, or federal associations. The Executive Committee of the Quebec Association is busy, we are told, making up its programme for the October Convention, and everything bids fair to a successful gathering, with the machinations of the unwise left out, as they ought to be whenever teachers do congregate. The politician has a moral code of his own, it is said, but his peculiar methods of making a public opinion, and his still more peculiar logic of sweeping all argument as the winds by a vote should be frowned down in every assembly which has the higher morality for its guidance.

## CURRENT EVENTS.

### EDUCATION.

In spite of the ceaseless legislative and departmental attention that Ontario has never failed to devote to her schools, she is noting that the condition of popular education has ceased to improve. The difficulty there, as in other communities, is in the lack of adequate demand. It has naturally been assumed that as the circumstances of the people improved and the people grew more intelligent the

desire of all classes to have their children well educated would increase. Probably it would; but perhaps we are taking for granted too much when we assume that the parents of the present generation are either more leisured or more cultured than was the first generation planted on the soil. It is certain that they are much better off, as that phrase is commonly applied; that they are surrounded by many more comforts, eat daintier food, wear better

clothes, ride in better buggies and travel oftener by rail than their fathers did. But, though the hardships may be less, what is commonly called the struggle for existence is probably not less, and parents are under as great pressure as ever to make their children useful and to start them in money getting. Then, as to the culture, some of the immigrants were, no doubt, very ignorant, but others were very well educated. We doubt if there are more of the native generation who find themselves better educated than their fathers were, then there are those who are forced to acknowledge that their fathers wrote a better hand and brought with them from the old country a more solid education than they themselves were able to acquire during the scattered days of schooling that were open to them in their own childhood.

The sparseness of some of the school populations is the evil with which Ontario is at present trying to grapple. The great Dr. Egerton Ryerson, the founder of the Ontario school system, set up as his standard a school district of very small dimensions. His plan was that each school should have a separate school board. In this he did better for his province than whoever gave shape to the school system of Quebec. Here the school districts are large and contain many schools each. So long as a plurality of schools is permitted in a district there is a constant pressure on the part of the taxpayers to have the money expended in their own neighborhoods. Thus, schools are multiplied and the resources for each attenuated. Moreover, as each taxpayer's money goes into a general fund, the whole study of the people is how to pay as little as possible. Where, on the other hand, there is a separate administration for every school there is naturally the same emulation between one district and another, as there notoriously is between one housekeeper and another,

as to which will have the best, and whatever improvement one gets the next one wants. Thus far Dr. Ryerson did for the best. Nor could he have done other than he did in determining the maximum size of school districts, which was naturally fixed by the utmost distance that a child of school age could walk twice daily. It has been found in practice, however, in districts of country far more thickly settled than the most of Ontario that, what with distance, with bad roads, what with delicacy of constitution, enough of families could not be grouped to carry on a successful school, and the tendency is to have schools, in proportion to the number of scholars, many and bad. The plan that has been adopted in some countries is to replace two or three such schools by one, and to arrange to have a wagon drive in every morning on each road that converges on the school to bring the children from the more distant homes and take them home again at night. Such a machinery of reliable intercommunication between different parts of the country would no doubt develop in many ways towards the lessening of the isolation of our rural population. It might easily, for instance, become a daily mail delivery and a parcel post, if not a passenger service.

When all is done it is a question whether what is wanted is not a compulsory school system such as exists in all countries on the other side of the sea. After all, this is the logical thing. Popular government demands education. The public has a right that the children should be educated. This is the duty of the parents as much as it is their duty to feed the children. They have no more claim on the State to teach their children than to clothe them. The State gets, as we know, into all sorts of trouble when it attempts to do the parents' duty. We only quarrel on broad lines as yet, as



between Roman Catholic and Protestant. But, as we become more and more interested in the all-important subject of education, we shall have more and more conscientious difficulties and differences. All that the State has a right to do is to demand that the children be educated. In the abstract it has no right to take the parents' money by force and take the children from their parents and educate them as it chooses. This is at best a crude and temporary device rendered necessary by an imperfect condition of society, just as the device of a State church once satisfied the religious demands of peoples, but no longer does so. Still, if the State demands that the children shall be educated, it seems necessary that for the most of them it must provide the education. We have, however, always begun at what is logically the wrong end. Instead of first requiring the education and then providing it where that cannot be otherwise done, we provide it and do not require it at all. This last omission is the weak point.

#### THE TREE CROP.

The international dispute over the terms on which timber may be exported from Canada and imported into the United States has no doubt resulted in some bad blood. It seems likely, however, to have also a wholesome effect. Indignation at American encroachment has produced indignation at the wasteful way in which the American lessees of Canadian timber lands have denuded their limits. This, in turn, has led the attention of the people, hitherto hard to rouse on the subject, to the whole question of the preservation of timber. It would almost seem as though, in a country whose first settlers looked upon trees as their natural enemies, to be warred against with fire and axe, and indeed in every way possible, it was necessary

for the first, and perhaps the second, generation to pass away before reverence for nature's beauty and grandeur as represented in the tree could be restored. So long, too, as the clearing of land demanded all the energies of the people, it was hardly to be expected that much interest would be taken in the prospective values of trees too young to cut. We have always thought that more might have been done by legislation to protect the small trees and saplings, say, by a stumpage tax that would in their case be prohibitive. So long, however, as the expected destiny of the land on which the timber grew was farming, and not a second growth of timber, such considerations were of minor importance, and the one object of stumpage taxes was, like that of the lessee of the limits, to take as large an immediate harvest off the land as possible.

Ontario has begun to realize, however, that, to speak very moderately, four-fifths of her area must ever be a lumber-raising country, and nothing else. Good timber is already scarce enough and remote enough to make the care of growing trees a matter, not only of prospective, but of immediate, financial interest. It is probable that for some time *nothing more will be done, in general way, than the adoption of more effective regulations to check waste.* Yet more than this is spoken of by our Ontario correspondent, who suggests the sowing of the cones of the white pine over burnt areas. The Canadian who has travelled through any forest region of Europe can hardly fail to have asked himself whether a vast deal more care than we have ever thought of taking would not now pay in Canada. Trees are not there a wild but a cultivated crop, and there is all the difference between seeking them where they happen to grow and having the crop as heavy as the land will bear. There is another difference. Instead of every tree growing at its own sweet

will, every stick grows up absolutely straight and free from knots. The effect is not picturesque, but to the eye of the economist, it has a beauty as much above the picturesque as the farmer would see in a crop of fine, robust standing grain as compared with a wheat-field prostrated by a hailstorm. How this result is brought about we need not inquire. We may assume that it pays. If it be said that popular governments like ours are notoriously indifferent to anything but immediate results, and are forced by the conditions under which they exist to make a special study of taking no thought for the morrow, it remains true that a growing forest is an asset that the country that possessed it can discount, and that will always stand it in stead when it is negotiating a loan. Nor is the harvest, even in the case of the slow-growing pine, so remote as some imagine. We have seen merchantable white pine of eighteen inches diameter standing upon what was a burnt-bare raspberry patch forty years before. We cannot look to the introduction of a perfect system at once. Fortunately, the object is one that can be approached by gradual steps, and by small beginnings, through which experience may be gained and mistakes corrected, although for that matter there is all, or at least most, of the experience of other countries to profit by. One form of forest culture which is now becoming a leading one in Canada yields a speedy crop, namely, pulp wood. The spruce and poplar used for this purpose need little or no culture, and are ready for cutting in ten or twelve years. But it is time we realized their value as affording in many cases the most profitable use the land can be put to, and made a business of preserving them.

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ST. HILDA'S COLLEGE TORONTO.

Friday, April 14th, was a marked day for the friends of Church Univer-

sity education for women in Canada and the supporters of Trinity College, it being the occasion of the laying of the corner stone of St. Hilda's College. The presence of Her Excellency the Countess of Minto, who laid the corner stone, added greatly to the interest of the ceremony. At 12 o'clock a large gathering assembled in Convocation Hall, Trinity College, and awaited the arrival of Her Excellency, who was escorted by His Lordship, the Bishop of Toronto, the Chancellor of the University, the Provost and the Council of St. Hilda's College. The Chancellor read an address, which was presented to the Countess of Minto. The Provost, in a brief speech, explained the objects and history of St. Hilda's, and particularly emphasized the fact that it is the first residence for women attending a Church University in Canada, and the first Women's University residence in Ontario. The past work of the college was referred to in flattering terms, and the Council and lady principal were congratulated upon the success which has attended their efforts in establishing this institution. The Bishop of Toronto, who is President of the Council of St. Hilda's, gave an interesting address, in which he referred to the increasing demand for the advantages of university education for women, and he cordially endorsed the step taken by the authorities of Trinity in opening their doors to women students. His Lordship referred to the improved facilities with which the work would be carried on in the new building. At the conclusion of the speeches the gathering adjourned to the building which is being erected at the northwest of Trinity College. A large platform had been raised which accommodated several hundred guests. Suitable prayers were read by the Bishop, and Her Excellency then proceeded to lay the stone. The trowel used on this occasion has an historic value, it being the same which Bishop Strachan

used at the founding of the Trinity College, and which has also been used at the laying of the corner stones of the various additions to the buildings. At the conclusion of the ceremony hearty cheers were given for the Countess of Minto and many congratulations and good wishes extended to the authorities of St. Hilda's College. An opportunity of contributing to the building fund was given, and over \$100 was received. The occasion was one not soon to be forgotten by any of those present, among whom were many who have the future of St. Hilda's very much at heart. It was the first public recognition of a movement which has been begun and carried on in weakness and sometimes with little encouragement. Those who know St. Hilda's know its importance, and feel that the commodious building in course of erection, the testimony of Bishop Sweatman and the kindly assistance and recognition of the Countess of Minto are but fitting tributes to a movement which aims to afford greater educational facilities than the Churchwomen of Canada have enjoyed heretofore.

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#### WORK, THE WATCHWORD OF SUCCESS.

"Work, and be thorough," is our counsel to men who seek to rise by self-improvement.

There is no want of desire on the part of most persons to arrive at the results of self-culture, but there is a great aversion to pay the inevitable price for it—hard work. Dr. Johnson held that "impatience of study is the mental disease of the present generation," and the remark is still applicable. We may not believe that there is a royal road to learning, but we seem to believe very firmly in the "popular" road. In education we invent labor-saving processes, seek short cuts to science, or learn French and Latin "in twelve lessons" or "with-

out a master." We resemble the lady of fashion, who engaged a master to teach her on conditions that he did not plague her with verbs and principles. We get our smattering of science in the same way; we learn chemistry by listening to a short course of lectures enlivened by experiments, and when we have inhaled laughing gas, seen green water turned red, and phosphorus burned in oxygen, we have obtained our smattering, of which the most that can be said is that, though it may be better than nothing, it is yet good for nothing. Thus we often imagine we are being educated while we are only being amused.

The acquirement of bits of information, without study and labor, is not education. It occupies, but does not enrich the mind. It imparts a stimulus for the time, and produces a sort of intellectual keenness and cleverness; but without an implanted purpose and a higher object than mere pleasure it will bring no solid advantage. In such cases knowledge produces but a passing impression—a sensation, and no more; it is, in fact, the merest epicureism of intelligence—sensuous, but certainly not intellectual. Thus the best qualities of many minds, those which are evoked by vigorous effort and independent action, sleep a deep sleep, and are seldom called to life, except by the rough awakening of sudden calamity or suffering, which, in such cases, comes as a blessing if it serves to rouse up a courageous spirit that, but for it, would have slept on.

Accustomed to acquire information under the guise of amusement, people will soon reject that which is presented to them under the aspect of study and labor. Learning their knowledge and science in sport, they will be too apt to make sport of both, while the habit of intellectual dissipation thus engendered cannot fail, in course of time, to produce a thoroughly weakening effect, both upon their mind and character.

"Multifarious reading," said Robertson of Brighton, "weakens the mind like smoking, and is an excuse for its lying dormant. It is the idlest of all idleness, and leaves more impotency than any other."

The evil is a growing one, and operates in various ways. Its least mischief is shallowness, its greatest, the aversion to steady labor which it induces, and the low and feeble tone of mind which it encourages. If we would be really wise we must diligently apply ourselves, and confront the same continuous effort that our forefathers did; for labor is still and ever will be, the inevitable price set upon everything that is valuable. We must be satisfied to work with a purpose, and wait the results with patience. All progress, of the best kind, is slow, but to him who works faithfully and zealously the reward will, doubtless, be vouchsafed in good time. The spirit of industry, embodied in a man's daily life, will gradually lead him to exercise his powers on objects outside himself, of greater dignity and more extended usefulness. And still we must labor on, for the work of self culture is never finished. "To be employed," said the poet Gray, "is to be happy." "It is better to wear out than to rust out," said Bishop Cumberland. "Have we not all eternity to rest in?" exclaimed Arnauld.

*Work*, the watchword, calls from everywhere for men to equip themselves with knowledge, for the struggle of life. Progress in knowledge should be the aim of old and young; the needs of the times demand it. Man was designed for work, not for ease. Most people want the results of self-culture without the work. Knowledge acquired without study and labor is not education. Those accustomed to learn easily will reject that which is accompanied by study and labor. We should desire to rise by study and hard work, whose results will endure the tests of time and use.—*Self Help*.

In looking over some of the advertisements for teachers, we still notice the disgraceful appendix, "State salary expected." If teachers are true to one another, the hateful phrase is sure to disappear in time, though there has been a patience shown towards this kind of thing which is surely no virtue. The other day a young man was applicant for a vacancy. The hateful query was not put to him in the open advertisement, but in the after note written in reply to his application.

"How much salary do you expect?" said the secretary's note.

"The salary which the former master received," was the reply returned in the applicant's letter.

And when he afterwards appeared before the Chairman of the Board in person, he did not hesitate to give the same reply.

"That is the salary you have formerly paid to the position" he said in a respectful way. "You have by your action declared the position to be worth that amount, and as I intend to fulfil all the duties of the position faithfully and well, I expect to be paid the value you have yourselves placed upon the work to be done."

There is a heroism in these words surely which must go to the heart of every teacher in the land, who is not what is beginning to be called in sneering parlance a *cheap teacher*.

Sir John Gorst, the Vice-President of the Lords of the Council of Education, England, is finding what it is to be Minister of Education with a superior officer over him. The Duke of Devon is President of the Council, and when Sir John makes his explanations before the House of Commons it is all but impossible for him to keep out of sight his personal wish that things could have been other than they are.

There seems to be a screw loose in the Nova Scotia school system, and some of the Nova Scotian educationists seem either unwilling or unable to tighten it. There is no province in the Dominion of Canada outside of British Columbia in which Normal School training is not a recognized element in its educational system. In New Brunswick, Prince Edward Island, and Quebec (on the Protestant side) every teacher has now to pass through a course of professional training. And this has long been virtually the case in Ontario with its splendidly equipped Normal Schools and its numerous Model Schools. But in Nova Scotia there is still the option of attending the Normal School, a state of affairs which one would hardly expect to find in a province whose Common School progress began with the Normal School energies of Dr. Forrester.

The University of Cambridge has lately conferred the degree of M.A. (*causa honoris*) on two of the prominent officers of the Educational Association of England. The recognition of the schoolmaster comes slowly, but not less slowly in Canada it seems than in Great Britain. The next Governor-General is sure to get his doctorship from every University in the land, but where is the Canadian University that would ever think of conferring even an honorary M.A. upon the President of a Canadian Teachers' Association?

Few have any idea of the terrible rooting out there is for students in India, between the University entrance examination and the final for B.A. Last year 5,989 candidates presented themselves for matriculation and 3,193 passed. On the first examination in Arts only 1,418

succeeded in passing, and at the final only 425 survived. The system that declares so many people incapable of being educated is surely either too wide or too intense in its scope. The proportion of imbeciles in the world is surely not so large as it is in India. If McGill University in the elaboration of its *curricula* should force our minor Canadian Universities to outdo it in the width and intensity of its course, our young Canadians may find themselves under the same suspicion of imbecility which the young Indians do. A University body which adds to its course until its own professors confess that such a course cannot be accomplished in the time must surely have some other object in view than the training of our youth. Perhaps a composite examining board would induce a mean in this kind of University expansion.

From a report on the Training Colleges of England, we read that the movement in the direction of a higher standard of comfort and refinement proceeds at a steadily advancing rate. But the *School Guardian* seems to think that there is room for improvement in the teaching of French, if the examining revisors' reports are to be trusted. Of the manner, for instance, in which the words, "Une grenouille vit un bœuf, Qui lui sembla de belle taille," were translated by certain candidates, the following are amusing specimens: "A greengrocer lived on beef, which seemed to her beautiful cut"; "one person with a girl who resembles a tail belle"; "a geraffe (*sic*) lives on beef which seems to him good taste"; "an ugly piece of beef which looks like the beautiful tail", and "an old woman kept a cow who thought she had a pretty tail."

The class which retires this year

from the Ottawa Normal School is one of the brightest, perhaps, which has graced the benches of that institution's assembly hall, and the Province of Ontario is to be congratulated on having such an addition made to its large and efficient army of teachers. The Hon. Dr. Ross lately paid a visit to the institution, and took advantage of the occasion to give one of his stirring addresses.

The opening of the Royal Victoria College, Montreal, as an annex to McGill University, will form a striking episode in the history of female education in Canada. The ladies have shown themselves to be anything but inferior to men in the overcoming of the difficulties of a collegiate course, and the improved quarters which Lord Strathcona and Mount Royal has provided for them while encountering the tribulations of the Donalda course will no doubt be further in their favor. Those who are still of the opinion that the female mind is not equal to the scholastic curriculum, which men can accomplish, may learn of something to change that opinion on reading the reports of the late examinations in McGill University and in Glasgow. In Montreal Miss Holliday, this year, took first-class honors and a gold medal. In Glasgow the degree of M.A. has been open to ladies only for a few years, but there they have asserted themselves without delay. In 1897 two ladies took honors in classics, and the following year witnessed the same feat. Last October a lady graduated with double honors in mathematics and English literature, and another with first-class honors in English literature. It would be interesting to have like returns from the other Canadian colleges at which ladies have taken high standing.

At the beginning of this year the boys and girls of a certain school in England decided to make a present to the royal children at Osborne of one of the bookshelves for children issued in connection with the Masterpiece Library, and containing 150 of the "Books for the Bairns" series, and selections in prose and verse. On communicating the intention of his pupils to Her Majesty, the teacher received the following letter from the Queen's private secretary: "Osborne, February 7, 1899. Dear Sir,—I have to thank you for your letter of the 25th inst., in which you intimate that the boys and girls of your school have contributed towards the purchase of one of 'The Children's Bookshelves,' and desire to offer it for the acceptance of the royal children who are now at Osborne. The acceptance of such offerings is contrary to the rule, but the Queen has approved of a special exception being made in this instance. I therefore beg that you will express to all those children who have taken part in the presentation the sincere thanks of Her Majesty's grandchildren for their kindly thought in giving to them the interesting and comprehensive selection of little books which are included in the 'Bookshelf.' The coloring of the pictures in the copy of 'The Pilgrim's Progress' does great credit to your little pupils. With your permission the book will be retained with the others."

The people of Oswego seem to be believers in the absolutism with a good man at its head. In the new law for the government of its schools the following are recorded as the functions of the superintendent: That functionary may be removed only upon written charges, and after due trial and conviction. To be eligible the superintendent must have had five years' actual experi-

ence as a teacher either in New York Public Schools, or Public Schools elsewhere of equal grade in requirements, or have acted as superintendent or principal of schools, or taught for a like period in a college, all such experience being within the last fifteen years. The superintendent has exclusive control of all the teachers employed in the city schools, with exclusive power and authority to select, nominate, dismiss, transfer, discharge, suspend, fine, grade, re-grade, and control all of said teachers, and in his discretion to do any and all such other matters and things in and about the force and personnel of the teachers in the free common schools of the city of Oswego as in his judgment will tend to improve the efficiency of the said free common schools and the teachers employed therein, and as will be to the benefit and welfare of the scholars in attendance at such schools. It is his duty to select and nominate teachers solely with regard to and upon individual merit, and all other things being equal, to give preference to the citizens of Oswego.

There is much rejoicing among the teachers of New York over the passing of the Ahearn Bill, which provides that no regular teacher shall receive less than \$600 a year, and no teacher after ten years of service less than \$900, nor after fifteen years of service less than \$1,200; that no vice-principal or first assistant shall be paid less than \$1,400, no male teacher after twelve years of service less than \$2,150, no male principal after ten years less than \$3,500, and no woman principal after ten years less than \$2,500.

The number of teachers graduating this year from the McGill Normal School does not exceed a hundred and forty. The most important question which the Boston authorities have had to meet is the excessive number of

graduates of the Boston Normal School. Much time and thought during the past year has been given to candidates for positions. There are 256 Normal graduates of the last three or four classes waiting for places. It is proposed to limit the number of Normal School pupils. Not more than seventy-five should enter. Then those who were graduated would be practically none of a trial in the schools. Principal Robbins, of McGill Normal School, is not likely to have the same trouble, seeing trained teachers are beginning to be in request in the Province of Quebec.

What a magnificent object-lesson for the boys and girls—an incentive to awakening ambitions, a deterrent to possible criminal germs! The sixty students of the Schenectady Classical Institute lately went to Albany to make a tour of the capitol and of the Albany penitentiary. In both legislative chambers the party was accorded the privilege of the floor, and they were presented to Governor Roosevelt. What school in or near Ottawa, Toronto, Quebec, Halifax, or our other Canadian capitals have ever been invited to visit the Parliament Buildings, where can be so easily learned the lesson of our legislative system?

The Duke of Devonshire, Chancellor of Cambridge University, recently presided over a meeting at Devonshire House to consider the financial needs of the University, and the establishment of a Cambridge University Association. The chairman set forth the various requirements of the University, in buildings and endowments, to meet the increased demands of the day, and said that altogether something like half a million was needed. He announced that he would contribute £10,000 to the endowment fund. In presence of the munificent gifts given to some of our Canadian collegiate institutions, it is not likely that Cambridge will suffer long for lack of funds.

## MAGAZINE AND BOOK REVIEWS.

In the June number of *Scribner's Magazine* are published chapters eleven to thirteen of the "Ship of Stars" by A. T. Quiller-Couch. By this time one can understand the boyhood of Taffy; it is a romance, and yet psychic enough to please the taste of the late nineteenth century. There is another chronicle of Aunt Minervy Ann by Joel Chandler Harris, and a couple of good short stories. The singular letters of Sidney Lanier are continued, giving the most vivid impression of the thoughts of a musician. Of a different kind and yet kindred at the same time, are the letters of Robert Louis Stevenson-Davos 1880-1882.

Charles Emory Smith, Postmaster-General of the United States, explains the organization of the United States postal service in an article which appears in the May *Cosmopolitan*. Domestic science receives a good deal of attention in the same number. The Ideal and Practical Organization of a Home, by Van Buren Denslow; Fire Appliances and Science in the Modern Kitchen, by Anna Leach, being among the articles dealing with this subject. Larry McNoogan's Cow is a capital short story by Walter Barr, in which he illustrates incidentally pulls, lawyers and railways.

*Littell's Living Age* has been reproducing for some time from *Cornhill Magazine* The Fitchingham Letters, by Mrs. Fuller Maitland and Sir Frederick Pollock. A more charming survey of life and character is seldom found; it is one of the few new books that one would fear to lend.

"The Story of an Untold Love" was a little too intense, but "Janice Meredith," at present appearing in the *Bookman*, is a historical tale full of vigorous and agreeable people, not too introspect.ve. It is odd how Mr.

Ford varies in the temper of his work. The May number of this magazine contains a review of the drama of the month by Norman Hapgood, and an interesting article on "The Opera Season of 1898-1899." The "Humor of the Romany Chi" is an article by Theodore Watts Dunton.

The *St. Nicholas* for June contains two interesting illustrated articles on "Mars, the Planet of Romance," by Mary Proctor, and "The Great Red Planet in the West," by Mabel Loomis Todd. "Quicksilver Sue" is a most entertaining serial, by Laura E. Richards, that is thoroughly healthy in tone. It is a splendid thing to point out to children sometimes that happiness is not in the abundance of things that one possesses. "Training for Boys," by Samuel Scoville, Jr., will be read with much pleasure and satisfaction by athletic youths who only want to know what they ought to do before they begin doing it.

The Span o' Life, a tale of Louisbourg and Quebec, by William McLennan and J. N. McIlwraith. Toronto: The Copp, Clark Co.

This is a story of Scotland, England, and Canada, by two Canadians who are quite well enough known by previous work not to need any recommendation. The chief merit of the book lies in the simplicity and freshness with which the story is told and the various adventures in it outlined. It is a charm somewhat akin to the verse of the song from which the story takes its name, The Span o' Life's nae lang enugh. The surprised reader feels that he might have been given a hint about the identity of Father Jean. One did not even suspect that there might be anything to tell about him. On the whole the characters of the women are more successfully portrayed than those of the men, especially



Lady Jane, Madame Sarenes and her daughter.

Books received.

*D. C. Heath & Co., Boston.*

LeSage's Gil Blas, edited by A. Cohn & R. Sanderson. Glimpses of Nature for Little Folks, by Katherine C. Griel. Still Wasser, edited by Dr. W. Bernhardt.

*Houghton, Mifflin & Co., Boston.*

Corn Plants, their uses and ways of life, by F. L. Sargent.

*The American Book Company, New York.*

Theory and Practice of Teaching, by David P. Page; edited by E. C. Branson.

*Ginn & Co., Boston.*

El Sé De Las Ninas, edited by J. D. M. Ford.

*The Macmillan Company, New York.*

The Nature and Development of Animal Intelligence, by Wesley Mills.

The key furnished by the new issue of "Who's Who" to the pronunciation of those surnames whose spelling gives no clue to their orthodox sound should prove of considerable utility to those who desire to be correct in such matters. Why such a name as Cholmondeley should be called Chumley, or Dalzell Dee-el, or Geoghegan Gaygan is not *prima facie* evident, but so custom has decreed. The late Pro-

fessor Blackie, it may be remembered, had an opinion of his own as to the pronunciation of Geoghegan. He called it "Gaun," much to the disgust of one of his students who bore the name. At last the student rebelled; he declined to answer to his name so metamorphosed, and Blackie, after making three ineffectual attempts on one occasion to get an answer to "Gaun," looked at his opponent, shook his head, and exclaimed, "Ay, ay, Geoghegan (this time giving the name its correct pronunciation), but you're a dour devil."

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