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THE

# EDUCATIONAL RECORD

OF THE

## PROVINCE OF QUEBEC,

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| 5. Do. as estimated and provided for by the Company's tables | 296,878 |
| 6. Number of Policies issued during the year—2107; amounting to | 3,965,062 |
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| 8. Proposals declined by Directors—171—for | 291,200 |
| 9. Policies in force 30th April, 1880, 12,586, upon 10,540 lives. | |
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THE

# EDUCATIONAL RECORD

OF THE

## PROVINCE OF QUEBEC.

No. 9. SEPTEMBER, 1881. VOL. I.

## MR. GOLDWIN SMITH'S LECTURES AND ESSAYS.

### A HOLIDAY PAPER.

BY THE REV. J. F. STEVENSON, D.D.

Any book by Mr. Goldwin Smith is full of interest. His mind is not easy to classify, indeed, but for that very reason, among others, his views become an instructive and entertaining subject of study. Most minds reflect the average tone of contemporary thought and feeling only too exactly. They are plastic in excess to the spirit of the age, with scarcely a throb of individual character or a flash of original insight. So valuable is any divergence from the beaten track that even eccentricity, if it be not too self-conscious, is a relief and a stimulant and anything like freshness and novelty of vein is a positive boon.

The main position of Mr. Mill's essay on Liberty is, I think, incapable of a successful answer. Both truth and goodness, as he maintained, are brought out by the free contact of all forms of honest thought and genuine feeling. The man, therefore, is best serving his fellows who resolutely refuses to smother his convictions or in any way to play tricks with himself. He can give us nothing better than he has, and he has nothing better than his real character and his deliberate thinking. We are not all great men, but we may all be true men, true at least to ourselves.

Mr. Goldwin Smith has been the subject of much criticism, some of it sufficiently keen, not to say vituperative, but his severest critics have never charged him with concealing his genuine opinions. This book is as outspoken and incisive as anything he has written, and may be said to abound with strongly marked if not with original views. It consists of a number of papers published in various magazines, some Canadian or American, some English, and of a few addresses delivered on public occasions. None of these utterances are political, except indeed incidentally, but with these exceptions they touch a variety of subjects, historical, literary and speculative. The book is printed for private circulation only, because, as the author says, "the great public is sick of reprints." Of this we are by no means so sure; at all events, it is safe to say that the public, whether great or small, is far from being sick of such books as this.

It is, of course, impossible in a brief paper to give even an idea of the contents of the nineteen articles of which the volume consists. All that can be done is of the nature of general characterization and then of selection more or less illustrative.

It may be said of this book that it is a sort of voice lifted up in an unsympathetic age in favor of positive convictions in moral and religious criticism. A vein of moral decisiveness and of strong religious belief runs through all the papers of which it consists. How far this is from the prevailing tone of literary authorship our readers well know. The great philosopher of modern times whose worship is a part of the intellectual orthodoxy of the day, has elaborately demonstrated that no man can be either an Atheist, a Theist or a Pantheist. Some of us may be under the illusion that we believe in a God, and some that we do not believe in a God, while still others may fancy that they in thought regard the universe as infinite and eternal, and transfer to the great whole as thus conceived some at least of the attributes commonly regarded as divine. Let me assure you, on the authority of Mr. Herbert Spencer (which is of course final), that we are all quite mistaken. We do not think these things, we only "think that we think" them. No man who imagined himself to have a conviction in religion or even morals ever really had it. He only fancied he had it, or perhaps I should more correctly say, he fancied that he fancied that he had it. If you

ask the proof it is easy and direct. Mr. Herbert Spencer has no such convictions, and it is evident that all thinking that differs from his must be pseudo-thinking; all mankind must think as he does when they really think at all. That follows from the idea of Development, of which Mr. Spencer is the prophet when it is regarded as a theory and the consummate result and perfect flower when we speak of it as a process.

On the literary side the current temper is the same. We have "grown out," as we say, of all serious convictions, not because we know why, but because we have an indefinite impression that the process by which they are formed is not easy and that the convictions themselves are not absolutely certain. All thought, except that which can be tested by the senses, we distrust, and all moral earnestness fills us with "immense *ennui*." This last is a phrase of the superfine school, who preach to us "sweet reasonableness" in the name of One who would have dealt pretty sharply with that religion for the *crème de la crème* whose confession of faith is "*odi profanum vulgus*," and whose ritual and commandments are summed up in the direction, "Conform to whatever you find established however hollow and unreal, because there is nothing new and nothing true and it does not matter."

It is this spirit with which Mr. Goldwin Smith wages irreconcilable war. Like all the rest of us he is more or less perplexed to adjust the different aspects of his thinking. He finds the new knowledge of nature disturbing to the beliefs which the conscience and the spiritual powers demand. But he refuses to give up the problem as insoluble. Still more emphatically he refuses to consider it as settled in the negative. And, if possible, most emphatically of all he refuses to accept as substitutes for a solution the schemes which eliminate the very data of the problem itself, which give us a religion without a God and an immortality without an existence.

The first two essays in the volume are on the Greatness of the Romans and on the Greatness of England. The influence of the mind we have indicated appears in both. The greatness of Rome appears in its respect for law, that of England in the energy of character and regard for liberty bred by favorable conditions of climate and race. Rome made great rulers, England raised robust men. The element of moral conviction, and firmness of will as flowing from it, is apparent in both. With still

greater emphasis the same tendency is manifest in the third essay, on some of the incidents of the Thirty Years' War. The craving for moral healthiness and fervor draws Mr. Smith to the Protestant side in all cases of conflict between the Reformed Church and the Church of Rome. This is easy to understand. The Church of Rome is an elaborate system adapted with wonderful delicacy and skill to the æsthetic and emotional aspects of the religious mind. But it may be questioned whether any man believes the doctrines of that church taken in detail as personal convictions. They are matters not of conviction but of authority. The consequence follows almost inevitably that the Church of Rome possesses attractions for the skeptical mind about equal to those with which she charms the dogmatical. The skeptic sees in her an excellent policeman for the ignorant and a doctrine just as likely to be true as any other in a region where no truth is to be had. It is the man who bases his life upon conviction, as distinguished both from doubt and from authority, to whom she is distasteful. The superfine party compliment the Church of Rome. They talk of her universality, her urbanity, above all of her artistic gorgeousness. Her long stretch of historical continuity is charming to them. All this, from their point of view, is intelligible enough. The truth or the falsehood of the thing is nothing to them. But this is everything to a writer like our author. He asks, How much of it is true? On how much of it can I securely build? And if the reply be, On little, or, On nothing, he says, Then give me the little and throw the rest away, or if there be nothing let us try somewhere else.

This essay, therefore, is an eloquent and vigorous though discriminating defence of the Protestant powers in the great contest known as the Thirty Years' War. It leads us again in memory to Schiller's wonderful history, and makes the shades of Wallenstein, Ferdinand and Gustavus flit once more before our excited imaginations. To say that it is well written is of course, and also to say that it is transparently honest and sincere. Whether the estimates of character are wholly impartial may be matter of doubt, but there can be none of the thrilling interest of the story.

Two papers, one on the Ascent of Man, the other on Proposed Substitutes for Religion, afford abundant scope for the treatment which is specially Mr. Smith's own. In that on the Ascent of

Man it is fully admitted that the doctrine formerly held of a state of perfection in some time and place of the historical past out of which the human race has fallen is virtually disproved by geology and ethnology. This doctrine is superseded in view of the theory of evolution by the more hopeful and inspiring idea of a rise out of elementary conditions into more and more advanced forms of moral and religious life. But it is forcibly contended that the earlier conditions did not contain the later growths, or that if they did then these conditions themselves must have been something more than the mere collocations of matter and force which they would have appeared to the purely physical inquirer. Mr. Smith cannot consent to the idea of man which makes him a "kneaded clod." He asserts that the moral is moral, and not the material in a mask, that the spiritual life, a life founded on convictions and impelled by motives which imply a world of spiritual realities, is as much a part of the nature of man when man is found in his normal state as the movements of respiration or the faculty of vision. He refuses to be beaten out of the direct witness of his own self-consciousness by any quantity of dissection, whether done on dead monkeys or on live toads. He will not allow the question of a future life to be decided in a chemical laboratory, or the soul to be voted out of existence because it cannot be smelled. It is not necessary to deny the unity of the world or to maintain the essential difference between matter and mind. That matter and mind are two sides of one fact, or two poles of one living vibration is what most competent thinkers are increasingly willing to admit. But we may well refuse to construe the unity to our thoughts by sacrificing one pole to the other, and especially by sacrificing the higher to the lower. That the universe is penetrated through and through by thought, that its very joists are struck deeply down into primeval reason is involved in every scientific idea. For if it were not so how in the name of common sense could its facts be colligated by rational formulæ and interpreted in terms of thinkable law? Truly I can think nothing but thought, and if there were no thought in the universe there would be no thought *about* the universe in man. That fine saying of Kepler's is as profound in philosophy as it is touching in piety—that saying which he uttered in view of his discoveries in astronomy, "O God, I think thy thoughts after Thee!" That all sane thinking will before long return to

this point of view—a point of view which, as has been truly said, has been held almost without exception by every great philosofrom Pythagoras to Hegel—I cannot for an instant doubt. And when it does we shall see the last of this blind man's holiday, this Saturnalia of unreason, in which literary and scientific men, who ought to know better, are dancing, with bandaged eyes and ears deafened to the true harmonies which float to the thoughtful spirit from the fields of their own inquiries, before the amorphous and lifeless fetish, the mere apotheosis of contradiction and nonsense which they call the Unknown and Unknowable.

If the unity of the universe is constituted in thought, then indeed mind and matter are one at their root, but that root is no longer measurable by the properties of matter, it includes those of mind. Development, evolution, is then the ascent of all things toward the primal thought whence they drew their origin, the rise of the fountain towards its original source. For myself, I have always been an ardent evolutionist. Within three months of the publication of Mr. Darwin's great book I energetically defended its doctrines against the attacks of timid theologians. Nor do I see anything in evolution but a source of hope and a fountain of moral energy. Only remember that the beginning is to be measured by the end, not the end by the beginning. I cannot say thought and feeling and moral conviction are transformed fire-mist or developed protoplasm. I must say, on the other hand, fire-mist and protoplasm are not what they seem. They are crowded, saturated, penetrated with spiritual potencies, powers which require only time to become thought, feeling and moral conviction. The two statements are almost coincident in words but they differ by the diameter of the world. One, as has been truly said, can paralyse the energies and mar the beauty of a life. The other simply says, There are no rude jars or shocks in the majestic plan of the world. It moves on from simple to complex, from imperfect to perfect.

The paper on Proposed Substitutes for Religion, deals with the various forms of thought and emotion by which it is intended to supersede the belief in God and in a future life. Here, again, Mr. Smith refuses to accept the vacant chaff, however well-meant, which is offered us for grain. He shows, I think incontrovertibly, that the loss of a spiritual faith can never be compensated by a purely mundane one and for the reason, among others, that

the grounds of such a faith do not exist. The emotions that collectively constitute worship are only possible towards a conscious intelligent being; if for a moment they be drawn out by anything else it can but be for a moment, the first effort of reflection will reveal their groundlessness and with that discovery they will fall back upon themselves. As to immortality again, the so-called immortality of the race cannot supersede the immortality of the individual. It cannot, first, because the race is not immortal; it began and it will end, indeed, for all we know, it may end before long. And, secondly, the power of the hope for a future life rests in the fact, if it be one, that the forces of the universe fight on the side of goodness, and that whatever is right and pure will be gathered up and preserved for ever. In other words an immortality is nothing without a God, and as soon as the absence of God is realised all forms of future life become matters of indifference. Why should we wish to be remembered as good or benevolent if there is no intrinsic reason for goodness and benevolence? And if the universe be not righteous at its root, intrinsic reason there is none.

Other articles in this interesting book are on Abraham Lincoln, on Culpable Luxury, on Baron Stockmar, on University College, Oxford, and its relation to King Alfred, on Mr. Pattison's Milton, and on Coleridge's Life of Keble. It would be easy to illustrate the author's point of view by an examination of almost any of these papers. But our space is gone. Let it suffice to say that every one of these articles is marked by brilliant ability, and many of them are full of interesting and fresh information. A paper on the Conqueror of Quebec pays a fine tribute to the memory of Wolfe. A review of the life of Jane Austen recalls attention to the keen observation, calm reflectiveness, and fine analytical power of that remarkable novelist. Other papers we do not name, but there is not a line in any one of them otherwise than able and characteristic.

The article on Falkland and the Puritans is a reply to Mr. Mathew Arnold's essay on Falkland. It is interesting in many ways, but especially as bringing face to face two modes of criticism so widely different as those of these two writers respectively. Mr. Arnold, as we all know, is the apostle of sweetness and light—the sweetness consisting chiefly in mocking sarcasm and the light in elaborate misrepresentation. To him Falkland

is perfection. His elegance, his indecision, his toleration, his gentle melancholy, his dislike of the storm and stress of life, and a certain dash of almost finical *delicatesse* of feeling, by which he is marked are after Mr. Arnold's own heart. Principles Mr. Arnold hates. Every form of earnestness and enthusiasm he hates too, that is, as actively as a being entirely cold-blooded can be said to hate anything. His philosophy is completely epicurean, and his faith consists in holding that religion is a very good thing for Philistines, a thing, however, which fills a gentleman of sweetness and light with what he calls, in his favorite phrase, "immense *ennui*."

This is an antagonism as nearly complete as possible with Mr. Goldwin Smith. The tone of definite conviction that makes Mr. Smith a Protestant also gives him sympathy with the Puritan. The Puritans are Mr. Arnold's disgust. Of course they are. They did not curl their hair, or perfume their kerchiefs, or play on the viol, or dance. So the two authors join issue. If you would enjoy the characteristic battle I refer you to the book itself.

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## THE REQUISITES FOR SUCCESS AS A SCHOOLMASTER.

I read with much pleasure an able paper in the July number of the EDUCATIONAL RECORD on "the Schoolmaster's Work." The subject is a very interesting one, and I venture to put on paper a few thoughts of my own with reference to it. In doing this I shall endeavour as far as possible to avoid the ground travelled over by the writer of the article above-mentioned. The question I would consider is, who are likely to be successful, and who unsuccessful schoolmasters?

Of course *cela va sans dire* that, to instruct well, a would-be instructor must know well the subject which he professes to teach. He may cram up knowledge enough to serve for a lesson or two, and thus for a while veil his shallowness. Still, in the end, he will be detected, and despoiled of his borrowed plumes. Most children, boys at all events, are acute enough to discover whether their teacher is solidly or only superficially familiar with the subject, the knowledge of which he assumes to impart to them.

But, given the requisite knowledge, and that thorough and sound, does it follow that the elegant scholar, the well-trained mathematician, the accurate and philosophic historian will, of necessity, prove successful teachers and trainers of the youthful intellect? By no means. Any person of experience must be aware of instances of men of eminent distinction in the literary world who have comparatively failed as schoolmasters. Their academical success may have been conspicuous and universally recognized, but notwithstanding the prestige which such honours carry with them, the practical result has not been satisfactory. The schools presided over have languished, have diminished in the number of pupils, until, impelled alike by disappointment and self-respect, their heads have thrown up their positions and sought other spheres of work. On the other hand, cases can be cited of men of little or no distinction, dowered by nature with little or no originality, who yet have succeeded in bringing up a school to a decidedly high standard of excellence.

Here it may be asked, what do you mean by success? In reply, I should say that the most obvious test, first in order of time, and in the ordinary acceptation of men, would be university and other honours. I should not include school distinctions, prizes, etc., because the arena of competition is narrower, and the arbiters not necessarily outsiders. A schoolmaster whose pupils gain scholarships, high classes, fellowships, or who come out as wranglers or medallists, or who attain distinguished positions in competitive examinations, is looked upon as in one, and that an important respect, a successful schoolmaster. The second and not less true and real test, would be the habits and tone of mind of the pupils when they reach the adult stage, and enter on the battle of life. There must be, of course, in every school, no matter how good the system may be, some idle boys, and a few black sheep; but at the universities and among men of various callings, the character of a school is generally and not unfairly judged of by the daily habits and general mode of life noticeable in its old members. There are more stupid than clever people in the world, and schools are not intended to be for the benefit of the exceptional and gifted few, but for the ordinary and common-place majority, and surely a system that makes the most of the abilities of dull boys, and turns them out worthy members of society, and useful in their generation, that sys-

tem, I maintain, has conferred public benefit and deserves public gratitude. But if a school does not train boys in general, whether clever or dull, to be industrious, methodical and conscientious, it cannot be said to have succeeded, and the odium of its failure will be visited, in the main not unjustly, on its head master.

I think that, on the whole, men of genius do not make first rate schoolmasters. Genius must possess the element of originality, and that strongly developed. Originality is averse to routine, and dislikes working in a groove, and schoolmasters must adhere to routine and be content to work in a groove. Moreover, men of genius are for the most part slightly crotchety, and this quality may prove rather a perilous admixture in a schoolmaster's character and work. I could mention one of the most accomplished scholars that Oxford sent forth this century, a man of singular originality, and who wielded considerable moral influence, but who comparatively failed as an intellectual instructor. His lectures sparkled with interesting matter, but they were generally discursive, and had little or nothing to do with the subject in hand. Hence, although to acquisitive minds they suggested valuable trains of thought, they were well-nigh valueless for the study of any particular author, or preparation for any special examination. I am acquainted with another man, prominent in ability and learning, to whom classical and mediæval Latin, and classical and Hellenistic Greek were as native languages, and who yet is known to have been the reverse of a success as head-master. Again, as a rule, geniuses lack patience, when they are brought in contact with more ordinary minds, and patience in the case of a teacher is an absolute essential. Also, geniuses are prone to discover short cuts to knowledge, and sometimes despise the aid of grammars, lexicons, *et hoc genus omne*. If you shake a boy's belief in his grammars and schoolbooks generally, you may impair his industry and injure his work generally. Rather should you supply him with the best of such instruments, and then make him believe in them and use them faithfully and diligently.

Genius, then, is perhaps not one of the qualifications which we should abstractedly desiderate in a schoolmaster. But, though we may be rather afraid of geniuses, we must look for ability and systematized knowledge, and this naturally leads to the consideration of the various component parts, more or less needful,

which make up the composition of a thoroughly successful schoolmaster. In addition to being a man of knowledge and ability, he must be eminently practical; he must shun visionary theories and quixotic experiments. These are sure to entail loss of time, and time to him and his pupils is not only money, but a great deal more. Then, in order to teach well, he must gain the attention and interest of his pupils. In order to attain this end, he must throw himself into their minds. Instead of assuming knowledge on their part, he must assume ignorance. He must be clear and complete in his explanations, happy in his illustrations, prompt in his questions. He must be a storehouse of life, energy and magnetic sympathy. Again, he must be a model of punctuality and attention to his own duties, as thereby the moral weight of his discipline will be greatly increased by his own example. He must be strict yet kind, firm yet thoroughly sympathetic, respecting himself and respecting others. He should enter cordially into all that concerns the welfare and happiness of his pupils, and maintain his interest in them after they exchange their school for a wider circle of competition. He must be conscious of authority and not afraid to exercise it, and yet he must be the very reverse of a don or a prig. However severely he may punish he should never do so in anger, or lower himself in a moment of irritation by affixing abusive names to his pupils. And lastly, as we say in sermons, he must be a *man*, natural, truthful, honourable, scorning subterfuge in himself, and quick to repress it in his pupils. The indirect influence of a pure-minded and virtuous teacher is often considerable, and his character unconsciously impresses itself on others. I have known men say, reflecting on their boyish days, that so and so did them much good at that time, when perhaps the person in question never spoke a word to them upon religion, and very seldom said anything directly upon morals. Arnold probably exerted as much influence by his sterling and noble manliness as by his admirable school sermons, and yet his character was not free from defects. The special energy and *vis* needful for an efficient schoolmaster of course diminish with time, and one of Arnold's ideas was that no one can be a successful head-master for a longer period than fifteen years. There have been brilliant exceptions to this rule, to wit, Dr. Moberly of Winchester, and, I believe, Dr. Kennedy of Shrewsbury. This last, looking to results, was perhaps the best

classical teacher of his day in England. However, Arnold's remark was, as a general proposition, in all probability a correct one. A man who has filled the office of head-master for fifteen years will most likely have served for some time previous as an assistant master in some school. After twenty-five years of educational work, a man may still possess a stock of "go" and industry, but in the majority of cases, enthusiasm will have cooled. A man can hardly be a very efficient educator who is not enthusiastic about his duties, who does not love them ardently and make them for the time his chief, if not absolutely his sole work in life. No doubt teaching is a wearing, exacting, exhausting profession, but to an earnest, conscientious and competent man, it is full of enjoyment. I may be pardoned if I mention that the weariness from which teachers at times suffer is only physical and nervous fatigue. Give them the due allowance of rest, and their spirits will revive, always supposing that they are physically up to their work.

Also, without entering on the religious side of the question, I conceive that the schoolmaster's calling is one of the very highest of earthly employments, that it has about it a quasi-pastoral character, and that a man who is spared to see the fruits of his labour, to note the progress in life of former pupils, and to feel that he has helped to mould the characters and form the habits of those who are serving their God and their country in different walks of life, fills a very important place in the economy of this world, and tastes some of the purest pleasure which man can enjoy on this side the grave.

R. W. N.

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## OUTLINES OF ENGLISH LITERATURE.

NO. IV.

By Chas. E. Moyse, B.A.

*The course of Celtic thought illustrated by King Arthur legends and Ossianic cycle; also by spread of Irish Christianity and doubts of localities of births.* 1. As an instance of the readiness with which Celtic thought travelled among Celts, let us consider the course of the King Arthur legends. Arthur is generally thought to

have distinguished himself in checking the westward advance of the Teuton over West Wales and to have hurled him back upon the woods of Dorset by the crowning victory of Mount Badon (Badbury), A. D., 520. On examining Literature, however, we find that the Arthurian land extends from the *Lowland* parts of Scotland, through Cambria, Wales, Somerset, Devon, Cornwall, Britanny, to the Loire. Lowland is italicized because it is emphatic, for the literary wave of Arthur's fame unable to find entrance, ran along the base of the Highlands; another hero of song ruled the mountains, of whom we are soon to speak. Arthur's Seat near Edinburgh, the fort of English Eadwine, will help to fix the northern limit in the memory. So much for the tract; now for the course. Authorities qualified to deal with the matter state that Arthur was a leader *not* of the South Britons, but of the Celts of Cambria (Cymry), against the English on the east and the Picts and Scots on the north. If this be true, the Arthur story *travelled from north to south*, from the north-west of England to the centre of France. There may be some mistake about the exact path, but no doubt can exist as to the gradual topographical extension and the development of the theme. In Celtic and *Early* Latin literature, Arthur is scarcely superior to his retainers and is of the earth, earthy; then he is set upon an ideal throne, surrounded by a famous hierarchy of knights; finally, he becomes the embodiment of spiritual excellence. The fullest treatment comes from the hands of the French when they, tired of the Carlovingian cycle of romance, of which the hero is Charlemagne, looked to Britanny for intellectual food. Marie de France (c. 1250) whose *lais* are borrowed from Britanny is said to have seen some of the old Breton stories and to have copied them with her own hand. Chrestien de Troyes, the other great French Arthurian poet of the middle ages, had previously treated the tales of the Round Table at great length, and to Britanny much of his work is due. He rises to a spiritual diapason in his concluding romance, Perceval le Gallois, a poem of twenty thousand lines. Although not altogether pertinent to the point under discussion we may add that the nobility of the theme of Perceval, of which the Holy Graal is an essential, seems to have inspired the most gifted of German mediæval romance writers, Wolfram von Eschenbach, whose Parzival saw the light in the twelfth century. The same high aim is apparent here;

man is governed by passion, is impure, has nothing of the spiritual about him; thus he is made to crave for calm purity and high spiritual life, free from fault. It must be remembered that these thoughts have received a new and beautiful dress in Tennyson's Idylls of the King, more or less French, except Enid, of Welsh source. (Lady Charlotte Guest's Mabinogion, a collection of Cymric poems, pub. 1840, Part III. Geraint, the son of Erbin.) This interesting ground may be broken up still further if enquiry as to the tone and the development of the spiritualizing is made.

2. Again, take the Ossianic cycle, of which Finn is the hero. In the Annals of the Four Masters, an Irish compilation of nature kindred to the Anglo-Saxon Chronicle, and, in its present form, chiefly the work of Father Michael O'Clery amid the ruins of his Donegal Convent (1632-6), we are told that Finn, the grandson of Baisgne, met a violent death upon the banks of the Boyne. The annalist, a true Celt, allowed the power of song to sway him, so, after a bald prose entry, he breaks forth into verse of which the first two lines are:—

> Finn was killed, it was with darts,
> With a lamentable wound.

A gloss explains the "darts" to be really the gaff of a vindictive fisherman who thought fit to slay Finn on the spot whither he had retired to pass his old age in tranquillity. Finn is of Ireland here, clearly enough, with a definite locality. But he was soon transported in song to his kinsfolk beyond the sea, which was, in many ways, no sea at all, and he became the glory of the Highlands. Thomas Moore, the poet, in his History of Ireland, vol. 1, p. 133, represents the Irish view of this question in brief phrase:—

> "It has been the fate of this popular Irish hero, after a long course of traditional renown in his own country, where his name still lives, not only in legends and songs, but in the yet more indelible record of scenery connected with his memory, to have been, all at once, transferred by adoption to another country and start under a new but false shape, in a fresh career of fame."

Thomas Moore was doubtless thinking of that galvanic shock from the hands of James Macpherson, which startled the world of letters and led, on the part of many, to such enthusiasm for old Gaelic ballads as to cause what has been called the eighteenth century revival of Gaelic literature. Without giving just at this

point any particulars about Finn, it may be well to say a word touching this final step; we are far away from Finn of the Annals, *but are still among Gaels.* James Macpherson was persuaded by John Home, the author of *Douglas*, to translate some old Gaelic poems which Home learned he possessed. Accordingly the young classical and Gaelic scholar, who had previously published a poem of no great merit, *The Highlander*, brought out in 1760, with the help of Dr. Blair, a little book entitled *Fragments of Ancient Poetry Collected in the Highlands of Scotland.* Then the Edinburgh people sent Macpherson and a band of Gaelic scholars to the hills to gather stray ballads. The year 1762 produced *Fingal, an Ancient Epic poem in Six Books*, together with several other poems composed by Ossian, the son of Fingal, translated from the Gaelic language by James Macpherson; the year 1763, *Temora*, a second epic. Then came the doubt whether Macpherson had played the impostor or not. He might have forged the whole, some said; others maintained the improbability of Ossian's authorship, in any case; the Ossianic epic might be derived from many sources, just as F. A. Wolf had gone far to prove in regard to Homer. The vexed question still remains unsettled. These two glimpses of Finn, even if disproportionate, will bring home the ease of Celtic literary excursion.

3. Again, profound learning and unquenchable missionary zeal earned for Ireland, in Saxon times, the title *Isle of the Saints.* Irish Columban, burning to convert, betook himself to the Vosges, to Burgundy, to Switzerland, where the canton of St. Gall bears his name, to Italy—a noble example of force. But more to our purpose is St. Columba, an Irishman, perhaps of county Donegal, the apostle of the Hebrides, where the little isle of Iona was the centre *whence Gael stepped forth to convert Gael* and to plant outposts in the heart of the English territory in the north. The ecclesiastical struggle was long, but its issue will be discussed hereafter.

4. Lastly, Gael wrangles with Gael for the honour of having produced famous men. Let one example suffice. John Scotus Erigena, the well-known philosopher, "with whom," writes G. H. Lewes. (Hist. of Phil., Vol. II., p. 9), "Scholasticism may be said to begin, if any definite beginning can properly be assigned to it," has been claimed by Ireland, by Scotland, and even by Wales.

*Gaelic Literature : Historical Remarks.*—We leave generalities and advance a few points of history. Ireland is the seat of the great bulk of Gaelic literature. The old Gaelic poet carved his lay on stone or wood tablets in characters called Ogam; hence the tablets are known as Ogam tablets. These Ogam tablets are found principally in the south-west of Ireland, but also in that part of Wales where the Gaels, the older inhabitants, made their influence most strongly felt. In the Book of Leinster, compiled by Finn M'Gorman, Bishop of Kildare, in the twelfth century, is a tale which refers to the Ogam tablets—*The Tale of the Fate of Bailé, the Sweet Spoken, and the Princess Aillir of Leinster.* Its substance is as follows: Bailé was falsely informed that Aillin had died a violent death, so he fell dead. He was buried and a yew grew up through his grave and the form of his head appeared on the top of it. The falsehood-monger who had been deceiving Bailé then went to Aillin and traduced the fair fame of Bailé, telling her of his death. Aillin fell dead and was buried and an apple tree grew up through her grave; it became a great tree at the end of seven years and the form of Aillin's head appeared on the top of it. Afterwards poets, prophets, and visioners came and cut down the yew and they made a poet's tablet out of it, whereon they chronicled memorable events in the history of Ulster. Then they cut down the apple-tree, whereon they chronicled similar events in the history of Leinster. Long afterwards on November eve, Art, the son of Conn, made festival, and tablets were brought by the poets, according to custom, and among them Art saw the tablets of Bailé and Aillin. "And when he saw them he asked for them, and the two tablets were brought and he held them in his hands face to face. Suddenly the one tablet of them sprang upon the other.... and they were preserved in the Treasury at Tara, until it was burnt by Dunlang, the son of Enna, at the time he burnt the Princesses." (Henry Morley's "English Writers," bk. 1, cap. 8, p. 171.)

Such poets as are mentioned above were classified according to merit, which consisted of the power of reciting tales. These tales were of two kinds, Prime and Secondary. Some of the subjects of Prime stories are destructions, cow-spoils, battles, tragedies, feasts, sieges, visions, loves. The *Ollamh* (pr. Ollave), or perfect doctor, was required to know seven times fifty tales;

five times fifty were to be Prime ; twice fifty, Secondary. The lowest class of literary men, the Driseg, could recite only twenty, all Prime.

*Fionn and the battle of Gabhra.*—The history and poetry of the Irish Gael centres round one event connected with Fionn (i. e. fair-haired), or Fingal, or Finn, the son of Cumhaill, and his son Oisin (i. e., little fawn), or Ossian, the famous warrior and still more famous poet. That event is the battle of Gabhra, (A. D. 284), said to have been fought on the hill Skreen, near Tara, in county Meath. The struggle came about in this way: After Finn's death, Cairbré, who had reigned over Ireland for seventeen years, disbanded and outlawed the Clanna Baisgne, a large and powerful band, of which Finn had been the head, and retained another band called the Clanna Morna. Now, owing to a murder committed by Goll, the son of Morna, the Clanna Morna was thrown into enmity with Finn's followers. The step that King Cairbré took led to the fight at Gabhra. Here the monarch and Oisin's son, Oscar, engaged in a combat which proved mortal to both, although some records state that Cairbré was slain by a perfidious relative, as he, grievously wounded by Oscar, was staggering away from the field of slaughter. Despite the annalist who writes Finn's death under A. D. 283, the later development of the tale brings the great chief of the Irish Feinne or Fenians to the fray. Finn closes his grandson's eyes in death. Oisin survived the fatal day, but its memories were ever about him. Old, blind, and stricken with deep melancholy, he was wont to call to his side Malvina, the betrothed of Oscar, that she might sing of former days. Her voice called forth a response from the mighty hero of war and of lay, and he, too, sang of his father Finn, and the fallen heroes.

This is a description of Finn as written in the book compiled during the earlier part of the sixteenth century by Dean James McGregor and his brother Duncan, of Lismore, in Argyleshire—the volume is generally called "The Book of the Dean of Lismore," and must not be confounded with an Irish book of the same name—

Both poet and chief,
Braver than kings,
Firm chief of the Feinne,
Lord of all lands,
Foremost always,
Generous, just,

Despised a lie.
Of vigorous deeds,
First in song,
A righteous judge,
Polished his mien,
He knew but victory,
All men's trust,
Of noble mind,
Of ready deeds,
To women mild,
Three hundred battles
He bravely fought,
With miser's mind
Withheld from none,
Anything false
His lips never spake,
He never grumbled,
No, never, Finn.
The sun ne'er saw king
Who him excelled,
Good man was Finn,
Good man was he;
No gifts ever given
Like his so free.

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## PHYSICAL EDUCATION.

BY FREDERIC S. BARNJUM.

Whilst heartily rejoicing at the increased interest taken by the public in the subject of mental education, and at the efforts put forth to secure its advantages for the poor as well as the rich, I cannot but wish that some such interest were manifested in the subject of physical education. The mind and body are so intimately connected that the health and well-being of the one must re-act on the other. "A sound mind in a sound body," old and often quoted as the saying is, nevertheless contains a great and most important truth; but for some reason or other, people appear willing to trust to *chance* in the vital matter of health and strength of body, whilst at the same time they spare no means to cultivate and develop the mental powers. The why and wherefore of this state of things it is hard to understand. We hear a great deal of flippant talk about "exercise," such as, "ah yes, capital thing," "nothing like exercise for keeping a man in health," etc., and such comforting utterances represent too often the whole amount of interest taken in the matter by the general public. Now, to me this seems utterly unaccountable, knowing as I do from actual experience the immense, nay, priceless value of proper physical training. I have had a wild field for observation, from the child of tender years to the middle-aged, and having closely watched the effects of *duly graduated exercise*, suited to the needs of different ages and degrees of strength

and health, I can speak on the subject with a certainty to which no mere theorist could pretend.

To begin with children, many will say, "Oh, let them play about and they will get all the exercise they want." I will ask such persons if a child's education could be conducted successfully by allowing it to read at random any book that came in its way, or whether they would not rather consider mental discipline and a regular systematic course of study necessary to produce mental growth and development. Of course I know what their answer would be; and upon the same principle I reply, that to secure a full and perfect development of the body, we must adopt a rational and carefully adjusted system of exercise. Play is one thing, and a grand and most necessary thing too; exercise is another thing, and the distinction between them must be carefully preserved. I always impress upon my pupils the necessity of throwing their minds into what they are doing, as an exercise taken listlessly never benefits half so much as when the energies are fully aroused.

I have now been engaged in physical education long enough to see the truth of what I formerly advanced as a theory, borne out by actual results. I have at present in my gymnasium young men who began their training in my children's classes, and who by persevering in a systematic course, have attained a development which may fairly challenge comparison with some of the celebrated antique statues; and this too without any undue strain on the vital forces, but just the legitimate outcome of a consistent course of practice, carried on from boyhood to manhood. In the case of girls, too, I have had most satisfactory results, numbers of my pupils having grown up to be healthy and well-formed women; and, as many have expressed to me, "owing everything to the gymnasium." Only the other day the wife of a minister, formerly a pupil in my Normal School class, told me she never felt so well in her life as the year she was attending my class.

Then again as regards young men, what a potent agent for good, morally as well as physically, is the gymnasium! In all large communities there are numbers of youths who are confined the greater part of every day in offices and stores, who have very little opportunity of developing their muscles. Now to these the gymasium provides an opportunity of counteracting the effect of

such confinement, and enabling them to become healthier and stronger, better fitted for their business, and of more value to employers; added to which it tends to divert them from pernicious and extravagant habits, ruinous alike to purse, health and soul. When once a young man begins to experience the delight of being strong, sobriety and a due reverence and proper care for the body inevitably follow. Therefore it is that a gymnasium conducted on sound principles, and where *gymnastic training is the one object.* It is of incalculable benefit. I can give a noticeable instance of exercise as an *aid to mental work*, in the case of those students of McGill University, who attend my classes during the session. They find that so far from losing time by coming to the gymnasium, they are gainers, as increased health, consequent on regular exercise, enables them to pursue their studies more effectively and with greater ease than they otherwise could; and this is proved by the fact that the hardest working men and those going in for "honors," make a point of keeping up their attendance at the class, even up to the time of examinations.

As regards the middle-aged and those who, though not having reached this period of life, yet consider they are "too old for gymnastics," I would say there cannot be a greater mistake than to suppose that systematic exercise is only proper for the young; far from this, the want of it abridges the period of vigour, induces obesity, and allows numerous ailments to gain a footing in the system, which by a regular course of exercise and proper regimen, might have been kept at bay. I have seen some wonderful instances of improvement in men who considered themselves "hopeless cases," and this too when they had never enjoyed any sort of training in early life, and had, therefore, to be treated with a caution and avoidance of anything that might overtax the uneducated muscles. In cases when I have induced those to resume exercise, who had given it up for many years and found themselves getting uncomfortably stout, the results have surpassed their most sanguine expectations.

I have endeavoured to show the importance of physical education by relating what I know from *actual observation and experience*, without going into physiological details, as I think that facts in this case are more valuable than theory. What I principally aim at is to show that physical education

ought to be no longer relegated to a back seat, but is entitled to an equally honourable place with mental education, and until it is so, the number of properly qualified and educated teachers will be few. Persons are too apt to confound the circus with the gymnasium and fancy that any man who can turn a summersault is fit to be the principal of a gymnasium, than which a greater error cannot be made. Is it to be supposed that a complex organization like the human body should be entrusted to an uneducated man, whose only qualification for such a charge is the ability to go through a certain number of movements? How is such an one to deal with the numerous cases which present themselves, requiring the greatest care and caution in duly apportioning the proper amount and kind of exercise, and watching the results? How chilling it is to a duly qualified educator to know that by the majority of people he is regarded in about the same light, as any man, who, without the needful knowledge, dubs himself "professor," and with the confidence so often begotten of ignorance, undertakes an office, the importance and responsibility of which he but faintly comprehends.

Whilst this is the estimation in which physical education and its teachers are held, it is not difficult to understand why no place is found for it in the regular school course. Parents do not demand it, and masters cannot be expected to trouble themselves about making room for anything outside of the usual routine. And so it is that a matter affecting a child's present and future well-being is virtually held as of no moment whatever; and it is only by strenuous efforts, in bringing the subject to the notice of parents, that they can be made to see and understand its importance. What makes this apathy the more wonderful, in our city at any rate, is the fact that the *medical men* have consistently supported me in my efforts from the first; in fact, as I have often said, without their aid and countenance the results would have been poorer than they are.

I would not have it understood from the foregoing remarks that there are not many persons who really value physical education very highly, but I speak of the general public. What I desire to see is a recognition of the necessity of physical and mental education proceeding side by side. Mind and matter cannot be divided, they have been joined together by one wiser than we are; let it be our duty to see that no attempt be made to produce discord where there should be harmony.

## EXAMINATION PAPERS.

We have received the following papers for publication. The last examination was held during the month of May.

### PRELIMINARY EXAMINATION.

*(For Candidates of all grades, except in English Grammar, instead of which a special Paper is given for the Academy and Model School Diploma.)*

### *English Grammar.*

1. Break up the following passage from The Lady of the Lake into simple sentences, and parse the words printed in Italics :—

> At length *they came* where, stern and *steep*,
> The hill *sinks* down upon the *deep*.
> Here Vennachar in silver *flows*,
> There, *ridge* on ridge, Benledi *rose*;
> Ever the hollow path *twined* on,
> Beneath steep bank and threatening *stone*. (20)

2. What is meant by the "comparison of adjectives"? Illustrate your answer by comparing your adjectives in the above extract. (5)

3. Define an *adverb* and a *preposition?* Write out in two distinct lists the adverbs and prepositions in the above poetry. How are adverbs formed from adjectives? What is an adverbial phrase? (5)

4. Write out the declension of the personal pronouns, and name those possessive forms which are frequently called *possessive adjective pronouns.* (10)

5. Correct the following sentences, giving your reasons :—You were told it was him, but indeed it was me, who seen him do the deed. I have been reading this two hours, but I think it is most complete nonsense. Every one must judge of their own feelings. The jury were divided in its opinion. The prisoner said, he done it out of spite. (10)

### *Arithmetic.*

1. Define the following Arithmetical terms :—*Prime number, Greatest Common Measure, Least Common Denominator, Quotient,* and *Factor.* (5)

2. Find the value of $\frac{3}{5}$ of $(\frac{7}{9} - 1\frac{2}{3})$, and show that it is equal to $\frac{1}{3}$ of $20\frac{3}{4} \div 10\frac{3}{8}$. (5)

3. What is a decimal fraction? Show how you would reduce a recurring decimal to a vulgar fraction. (5)

4. Multiply 2·564 by ·047 and divide ·00169 by ·013. (10)

5. At what rate per cent. must $756 be put out at interest for 4 years to yield $241.92? (5)

6. What part of an acre is $\frac{2}{3}$ of a square foot? (10)

7. A merchant received $853.25 for a case of silk, including $1.25 cost of box. How many pieces of silk were in the case if he received $53.25 a piece? (5)

8. A can do a piece of work in 8 days, and B can do it in 9 days; how long will it require A and B, working together, to do it? (5)

### *Geography.*

1. How many Provinces are comprised in the Dominion of Canada? Give the names of their capitals, and compare their areas and populations. (10)

2. Describe the river system of North America, naming six of the largest rivers with their principal tributaries. (5)

3. Name the counties of Quebec on the north shore of the St. Lawrence and their chief towns: or name the countries in the south of Asia and their capitals. (5)

4. Write all you know about the soil and productions of the Province of Quebec, or of any one of the other Provinces of Canada. (10)

5. Give a description of the coast line of the Mediterranean Sea taking note of the coast-waters, towns and islands as you pass from the Black Sea to the Atlantic Ocean. (10)

6. Where are the following places? Give an important fact connected with each:—Jamaica, Quito, Gibraltar, Newcastle, Havre, Isle of Wight, Anticosti, Xeres, Bayonne, Moscow. (10)

### *Sacred History—Old Testament.*

1. How long were the children of Israel in Egypt? How came they to be there? (4)

2. What gave rise to the plagues of Egypt? Mention any three of them. (7)

3. State briefly the substance of each table of the commandments, and say where and to whom they were first given? (6)

4. How long did the children of Israel wander in the wilderness? Mention at least two incidents connected with their wilderness-wandering, and say which alone of those who left Egypt entered the Promised Land. (8)

### *Sacred History—New Testament.*

1. Write out any three of the Beatitudes. (5)

2. Mention our Saviour's Exposition of the commandments as given in the Sermon on the Mount. (5)

3. Name three of our Saviour's Miracles, and give full particulars of any one 7)

4. State the chief facts regarding our Saviour's Resurrection as given by the Evangelists. (8)

## EXAMINATION FOR ELEMENTARY DIPLOMA.

*(To be passed also by Candidates for Model School and Academy Diploma.)*

### *Art of teaching.*

*Answer any five of these 7 questions:*

1. What are the advantages derived from the use of the unitary method in Arithmetic? Give an example illustrating the method itself. (20)

2. How would you try to improve regularity in attendance in your school? What is meant by a "Compulsory Clause" in a School Law? (20)

3. "Teaching means more than the mere hearing of lessons which have been prepared at home." Illustrate this by notes of a lesson in geography or grammar. (20)

4. What arguments can you adduce for or against "corporal punishment" in school? How would you otherwise discipline your school? (20)

5. What subjects would you teach to a class able to read in the Fourth Reader? (20)

6. Write a short essay on the law of "imitation in children." (20)

7. Draw up a *neat* time-table for a school of 40 pupils arranged in three classes, giving due prominence to reading, writing and arithmetic. (20)

## *History of England.*

*Answer any five of the 7 following questions:*

1. Name the divisions of Britain under the Romans, and in the time of the Saxon Heptarchy. (10)

2. Write ten events in English History which happened previous to the time of Egbert. (10)

3. Write out a list of the events which occurred during the reign of the Sovereign, who, in your opinion, was the worst king of Egland. Was his reign productive of any benefit to the country? (10)

4. What causes led to the restoration of Charles II. to the throne? What was the king's character? (10)

5. Tell what you know of the Battle of Standard, Danegeld, Ship-money, Habeas Corpus Act, the South Sea Bubble; and give events to the following dates, 1215, 1603, 1688, 1815, 1837. (10)

6. Write a paragraph on William Pitt the younger. or on Archbishop Laud. (10)

7. Name the Sovereigns of the Tudor line, and state what you know of Perkin Warbeck, the Field of the Cloth of Gold, Lady Jane Grey, and Mary Queen of Scots. (10)

## *History of Canada.*

*Answer five of the 7 following questions:*

1. Give an account of the earliest discovery of the Gulf of St. Lawrence, and name the places in Canada which were visited by the early navigators. (10)

2. Describe the siege of Louisbourg as conducted by General Amherst, or the siege of Quebec by Admiral Phipps. (10)

3. What battles were fought during the American War of 1812? Give a description of any one of them. (10)

4. What causes led to the rebellion in Canada, with which the names of Papineau and MacKenzie are associated?

5. State explicitly what you know of the *Alabama Claims, the Clergy Reserves the Act of Confederation,* and *the Treaty of Paris.* (10)

6. Name the principal events which happened while Frontenac was Governor of Canada? (10)

7. Give the names of ten of the most prominent men mentioned in the history of Canada. Write notes on any two of them. (10)

## *French.*

1. A quels changements est sujet l'article ? définissez ces changements. (7)

2. Lorsque un substantif pris dans un sens partitif est précédé par un adjectif, qu'employez-vous à la place de l'article partitif. (7)

3. (*a*) Quelle est la règle générale pour la formation du pluriel ? (*b*) Donnez les exceptions à cette règle, avec exemples. (20)

4. (*a*) Quand les adjectifs, *beau, fou, mou, nouveau,* et *vieux,* font-ils au masculin *bel, fol, mol, nouvel,* et *vieil ?*

(*b*) Comment ces adjectifs forment-ils le féminin ? (14)

5. (*a*) Dans quel cas *vingt* et *cent* prennent-ils un *s* ? (14)

(*b*) Quand ces deux adjectifs de nombre restent-ils invariables ? (12)

6. Donnez les temps primitifs des verbes irréguliers suivants :—*Appeler, courir, devenir, prendre, mettre, plaire.* (25)

7. A quelle partie du discours appartiennent les mots suivants :—(*a*) *advantage,* (*b*) *en,* (*c*) *à l'instant,* (*d*) *hors,* (*e*) *à l'abri de,* (*f*) *afin que,* (*g*) *hélas,* (*h*) *puisque ?* (15)

## EXAMINATION FOR MODEL SCHOOL DIPLOMA.

## *English Composition.*

SUBJECT OF ESSAY.—Any one of the following three :—

1. *The Pacific Railway Syndicate.* 2. *The resources and prospects of the Dominion of Canada.* 3. *Decision of character.*

## *Arithmetic and mensuration.*

N.B.—*The work must be shown as well as the answers.*

1. Simplify, (*a*) $\dfrac{2\frac{4}{5} - 1\frac{1}{2} + 9\frac{1}{11}}{4\frac{1}{8} - 2\frac{1}{4} + 13\frac{7}{11}}$

(*b*) $\dfrac{(3.71 - 1.908) \times 7.03}{2.2 - 3\frac{74}{333}}$ (15)

2. If $\frac{2}{3}$ of $1\frac{1}{4}$ of an estate be worth $300, what will be the value of $\frac{2\frac{1}{2}}{7\frac{5}{4}}$ of the estate ? (15)

3. (*a*) What is the difference between Interest and Discount ?

(*b*) Which of the two is greater and by how much ?

(*c*) Find the difference between the Interest and Discount on $1,639 for $4\frac{3}{4}$ months at $6\frac{3}{10}$ per cent. (20)

4. Find (*a*) the square root of 15376.248001 and (*b*) the cube root of 189119224. (10)

5. A street being 350 feet long, and the width of the pavement on each side being 5 feet 3 in., find the cost of paving it at $37\frac{1}{2}$ cents a square foot. (20)

6. The content of a cistern is the sum of two cubes, whose edges are 10 inches and 2 inches, and the area of its base is the difference between two squares, whose sides are $1\frac{1}{2}$ and $1\frac{2}{3}$ feet. Find its depth. (20)

## *Algebra.*

1. Find the sum, the difference and the product of $3x^2 - 4xy + 4y^2$ and $4x^2 + 2xy - 3y^2$. (10)

2. Simplify (*a*) $2a - 3(b-c) + \{a - 2(b-c)\} - 2\{a - 3(b-c)\}$

(*b*) $5x - 3[2x + 9y - 2\{3x - 4(y-x)$ (10)

3. Resolve into elementary factors, (*a*) $2(a^3 + a^2b + ab^2) - (a^3 - b^3)$. (*b*) $x^2 + x - 6$. (*c*) $4x^2 - 4x - 3$. (10)

4. Extract the square root of $16x^6 + 25y^6 - 30xy^5 - 24x^4y^3 + 9x^2y^4 + 40x^3y^3$; or extract the cube root of $a^6 - 3a^5b + 6a^4b^2 - 7a^3b^3 + 6a^2b^4 - 3ab^5 + b^6$. (15)

5. Reduce to their lowest terms $\frac{x^3 + 3x^2 - 4}{x^3 - 1}$ and $\frac{x^3 - 3x + 2}{x^3 + 4x^2 - 5}$. (10)

6. Solve the equations :— (*a*) $\frac{3+x}{3-x} - \frac{2+x}{2-x} - \frac{1+x}{1-x} = 1$

(*b*) $\frac{a-x}{p+x} = \frac{q+x}{b-x}$. (20)

7. A and B began to play with equal sums; A won 30 shillings, and then 7 times A's money was equal to 13 times B's; what had each at first? (25)

## *Euclid.*

1. How do you distinguish between the 4th, 8th and 26th propositions of the first Book of Euclid? Demonstrate any one of them. (20)

2. Define a paralellogram. Show that the opposites sides and angles of such a figure are equal. Prove that the diagonals of a square bisect each other. (20)

3. Prove that, if a straight line be bisected and cut unequally, the square of half the line is equal to twice the rectangle contained by the two unequal parts and the square of the line between the points of section. What propopositions in the third Book requires this proposition as a reference to their demonstration? (20)

4. Two circles cannot cut each other in more points than two, and two circles cannot touch each other externally in more points than one. Prove these two statements. (20)

5. Prove that the angle in the segment of a circle greater than a semi-circle is less than a right angle. (20)

## *Book-Keeping*

1. What purpose is to be served by adopting a system of *Double Entry* in Book-Keeping? Be explicit in your answer. (15)

2. Write out neatly the forms required for a note payable on demand, and a note held jointly by two parties. (15)

3. What is the object of Profit and Loss account? When do you debit and credit it? (15)

4. Explain the following terms:— *Bills on the Circle, Capital, Consignment, Insolvent, Remittance, Bills Receivable, Current Account, Cash-Book, Commission, Bill of Sale.* (30)

5. Draw out six distinct business transactions and journalize them. Give the rules for journalizing. (25)

### * *Use of the Globes.*

1. Name the various parts of a common school globe, and explain the use to be made of them in working simple problems. (25)

2. Explain clearly, as to a class in geography, the terms *Latitude* and *Longitude*, and show how the Latitude and Longtitude of Montreal could be found from the globe. (25)

3. Find the time of sunset at Quebec on the 1st of February. (25)

4. Given the declination and right ascension of a star, to find its place on the globe. (25)

### * *Linear Drawing.*

(*The lines by which each problem is solved must be shown.*)

1. Describe a square about a circle having a radius of one inch, and likewise a circle about a square. (25)

2. Show how the construction of many of the geometrical problems in Euclid's First Book may be simplified by the methods of practical geometry. (25)

3. Describe a hexagon on one of the sides of an equilateral triangle, a circle on the second side, and a square on the third. (25)

4. Describe a circle within and without a triangle (25)

## EXAMINATION FOR ACADEMY DIPLOMA.

### * *Geometry.*

1. If the squares described upon one of the sides of a triangle be equal to the squares described upon the other two sides of it, the angle contained by these two sides is a right angle. (15)

2. Describe a square that shall be equal to a given rectilineal figure, and prove that your construction is right. (20)

3. The angle at the centre of a circle is double of the angle at the circumference upon the same base, that is upon the same arc. (20)

4. Similar triangles are to one another in the duplicate ratio of their homologous sides. (20)

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* N. B. It is optional with candidates to take either the use of the Globes or Drawing.

5. If an angle of a triangle be bisected by a straight line, which likewise cuts the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base, together with the square on the straight line bisecting the angle. (25)

## *Algebra.*

1. Resolve into factors :—

(*a*), $x^6 - y^6$, (3)

(*b*), $a^2 + 9ab + 20b^2$; (3)

(*c*), $(a + b)^2 - 11c(a + b) + 30c^2$. (3)

2. Write down the values of :—

(*a*) $\dfrac{x^3 + y^3}{x + y}$ (3)

(*b*) $\dfrac{x^7 - y^7}{x - y}$ (3)

(*c*) $\dfrac{x^4 - y^4}{x + y}$ (3)

3. Find the value of :—

(*a*) $\dfrac{1 + 3x}{1 - 3x} - \dfrac{1 - 3x}{1 + 3x}$ (5)

(*b*) $\dfrac{1}{(a-b)(a-c)} + \dfrac{1}{(b-a)(b-c)} + \dfrac{1}{(c-a)(c-b)}$ (8)

4. Solve the equations :—

(*a*) $\dfrac{42}{x-2} = \dfrac{35}{x-3}$ (5)

(*b*) $\sqrt{4x} + \sqrt{4x-7} = 7$ (8)

(*c*) $\begin{cases} x - y = 3 \\ x^2 + y^2 = 65 \end{cases}$ (12)

5. (1) Solve the equation :—

$x^2 + px + q = 0$ (10).

(2) and show when there are

(1) two equal roots,

(2) two possible rooots,

(3) two impossible roots. (10)

(3) When a quadratic equation is reduced to the form $x^2 + px + q = 0$, show that the sum of the roots is equal to the co-efficient of the second term with its sign changed, and the product of the roots is equal to the last term. 10)

6. A certain number consists of two digits. The left hand digit is double of the right hand digit, and if the digits be inverted the product of the number thus formed and the original number is 2268. Find the number. (14)

## * *Natural Philosophy.*

N.B.—*Answer any five of the following questions:*

1. Explain the parallelogram of forces, as you would to advanced pupils. Show that the resultant of the forces 7 and 14 acting at an angle of 120° is the same as the resultant of the forces 7 and 7, acting at an angle of 60°. (20)

2. Explain the assertion that the wheel and axle, as well as the pulley, is a mere modification of the lever; and illustrate the statement that whatever is gained in power by the use of the simple machines is lost in time. (20)

3. A uniform lever is 10 feet long, and weight 6 lbs; its longer arm is 7 feet, and at the extremity of the shorter a weight of 21 lbs. is placed; what weight must be placed at the end of the longer arm to balance the lever? (20)

4. What is meant by *specific gravity* of a substance? A piece of wood which weighs 55 oz. in air has attached to it a piece of lead which weighs 45 oz. in the air and 41 in water, the united mass weighs 30 oz. in water: required the specific gravity of the piece of wood. (20)

5. Describe at least five experiments which may be used to illustrate a lesson on electricity, or on atmospheric pressure. (20)

6. What is the amount of pressure exerted against a mill-dam whose length is 220 feet, the part submerged being 9 feet wide, and the water 7 feet deep? (A cubic foot of water weighs 1000 oz.) (20)

7. State and explain Boyle and Mariotte's law. (20)

8. Describe the thermometer and the barometer. Express 148° Fahrenheit in Centigrade, and 37° Reaumur in Farenheit. (20)

## * *Scientific Agriculture.*

1. Explain the *nature* and *sources* of the organic food of plants. (10)

2. In what substances are the *run-out* soils of Canada usually deficient, and how may these be supplied? (15)

3. Explain the uses of *Draining*, *Sub-soiling*, or *Rotation of crops*. (15)

4. State the use of *Lime*, *Gypsum*, or *Bone Earth*, as fertilizers. (15)

5. State the varieties and mode of culture of *Wheat* or *Oats*. (15)

6. Describe any of the *insects* or *fungi* that attack Wheat, and the remedies which have been proposed. (15)

7. Mention the principal *green crops*, their places in the rotation, and their relative values. (15)

## *Greek.*

1. Translate into English Xen. Anab. I. ch. 6, § 1–3.

2. Parse, giving derivation or composition (if any), the principal parts of the verbs, and declension, gender and number of nouns and adjectives:—
(1) ἴχνια. (2) εἶναι. (3) στίβος. (4) ἕκαιον. (5) ἀνήρ. (6) γένει. (7) ἀρίστοις. (8) καταλλαγείς. (9) κατακάνοι. (10) πολλοίς. (11) ἔχοι. (12) κωλύσειε. (13) διαγγεῖλαι. (14) ὤετο.

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* N.B.—It is optional with candidates to take either Natural Philosophy or Scientific Agriculture.

3. Give the Syntax rules for (*a*) *πραϊόντων*. (*b*) *ἐφαίνετο*. (*c*) *βασιλει*. (*d*) *τὰ πολέμια*. (*e*) *ζῶντας*. (*f*) *τοῦ καίειν*. (*g*) *ἤξοι*. (*h*). *ὑπομνήματα*.

4. Decline (*a*) *πολίτης*. (*β*) *θεός*. (*γ*) *δῶρον*. (*δ*) *πιστός*. (*ε*) *νεώς*. (*ζ*) *φλέψ*. (*η*) *παῖς*. (*ι*) *γυνή*. (*θ*) *ναῦς*. (*κ*) *πολύς*,

5. Compare (1) *σοφός*. (2) *μέλας*. (3) *σαφής*. (4) *μέσος*. (5) *λάλος*. (5) *κακός*.

6. How are the Future and Perfect Active Tenses of Labial, Guttural, Dental and Liquid Stems severally formed? Give examples of each.

7. Inflect the Future Active and Middle of *σπείρω*, and give the moods of the 2nd Aorist of *λαμβάνω*.

## *Latin.*

1. Translate into English Cæs. de Bell. Gall. I ch. 40: "Haec quum animadvertisset * * * * meritus videbatur."

2. What is the construction in the above extract from 'Primum' to the end, and what is this portion dependent?

3. Account for the mood in videbatur.

4. Parse, giving the derivation or composition (if any), indicating the conjugations with principal parts, and declensions with gender and number:—(1) animadvertisset, (2) adhibitis, (3) quaerendum, (4) appetisse, (5) officio, (6) cognitis, (7) conditionum, (8) furore, (9) intulisset, (10) virtute, (11) pulsis, (12) laudem, (13) meritus.

5. Give the syntax rules for (*a*) adhibitis centurionibus, (*b*) ducerentur, (*c*) se consule, (*d*) discessurum, (*e*) persuaderi, (*f*) laudem, (*g*) tumultu.

6. Decline, indicating declension and stem:—(1) porta, (2) ager, (3) agger, (4) annus, (5) bellum, (6) miles, (7) mons, (8) opus, (9) corpus, (10) caput, (11) domus, (12) res, (13) jugerum, (14) plenus, (15) acer.

7. Compare felix, facilis, benevolus, senex, novus.

## *French.*

1. (*a*) Qu'appelle-t-on les temps *simples* et les temps *composés* du verbe. (*b*) Dans quels temps et verbes emploie-t-on l'auxiliaire "*avoir*" et l'auxiliaire "*être*."?

Donnez des exemples. (15)

2. (*a*) Quels sont les temps "primitifs." Donnez un exemple de chaque temps primitif des verbes suivants (la première personne seulement dans les temps qui se conjuguent) *Mouvoir, pleuvoir, s'asseoir, savoir, voir, valoir, acquérir, dormir, mourir, bouillir, aller, envoyer, boire, faire, mettre, résoudre, taire, vivre.* (26)

3. Distinguez entre "y", pronom personnel et "y" adverbe. (5)

4. Analysez le mot "en" dans ces deux phrases: "Je vais *en* France," "vous vous *en* contentez." (10)

5. Distinguez entre le participe présent, et l'adjectif verbal. Dans les exemples suivants, analysez "*mettant*" et "*rampants*":—

"Le temps est un vrai brouillon, *mettant* toutes choses bonnes ou mauvaises." "Des esprits *rampants* ne s'élèvent jamais au sublime." (5)

6. Donnez l'équivalent anglais des idiomes suivants: "*Avoir beau faire*" "*s'en rapporter à*," "*il y va de la vie*," "*coucher en joue*." "*c'en est fait de lui*,"

*"prendre la parole," "rire au nez de quelqu'un," "au pied de la lettre," "comment vous portez-vous," "avoir l'air comme il faut," "parler en l'air," "porter le deuil."* (25)

7. Traduisez en anglais: "Au banquet de la vie, infortuné convive, j'apparus un jour, et je meurs; Je meurs, et sur ma tombe, où lentement j'arrive, nul ne viendra verser des pleurs. Salut, champs que j'aimais, et vous, douce verdure, et vous, riant exil des bois. Ciel, pavillon de l'homme, admirable nature, salut pour la dernière fois." (15)

## MODEL SCHOOL AND ACADEMY DIPLOMA.

### *English Grammar.*

1. Define any five of the following grammatical terms:—*Diphthong, Etymology, Parsing, Case, Gender, Syntax, Active Voice, Progessive form, Adjective of Quality.* (8)

2. What is the function of a *preposition*? What are the various tests for finding out the adverbs in a sentence? (8)

3. How many moods have simple verbs? Give definitions and examples. (8)

4. Expand these simple sentences into complex sentences:—The Danube is a river. Knowledge is power. (6)

5. Analyse the following extract from the *Merchant of Venice*:

> The quality of mercy is not strained;
> It droppeth *as* the gentle *rain* from heaven
> Upon the place *beneath*; *it* is twice blessed;
> It blesseth him *that* gives and *him* that *takes*,
> *'Tis* mightiest in the mightiest; it becomes
> The throned monarch *better than* his crown. (10)

6. Parse the words in Italics, and the rules of syntax which refer to the functions performed by the words thus marked in the sentence. (10)

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## REVIEWS.

"LOVELL'S ADVANCED AND INTERMEDIATE GEOGRAPHIES." John Lovell, Montreal.

The year 1880 was the fiftieth anniversary of the foundation of the Royal Geographical Society of London, the oldest, except two, in the world—that of Paris, founded in 1821, has the honour of being the first. Few studies have made greater advances in late years than that of geography, and nowhere has that advance been more marked than on the American continent. Though England was ahead of most other nations in the recognition of its

dignity as a science, it can hardly be said up to the present moment to have appreciated its value as part of the studies of the young. A glance at Cornwell's celebrated School Geography, which has now reached over sixty editions, is sufficient to account for the unpopularity of the study among teachers and pupils. From its defects, American Geographies are happily free. With Canadians geography is no mere catalogue of names and populations, nor again is it merely confined to map work, though a complete Geography should include all these. Geography, as taught in schools and as it is found in the best books, is an introduction to the history of the different countries of the world, the history as studied from every point of view. Geography is the beginning of Natural History, Political Economy, as well as of History in its strict sense; it is thus an indispensable branch of the outfit of every educated man. We have said that it is nowhere better taught than on the American continent; to say then that Lovell's Geographies are on a par with the best Geographies we have seen is to give them high praise. The Advanced Geography is even better than any others. The maps are minute and excellent, and any one who is provided with this volume has an Atlas that will serve him for most practical purposes. In this respect it is decidedly superior to Calkin's popular work. The different subjects under the different countries are clearly marked by headings of distinct type. On turning to the United States, we find a clear table giving opposite the names of the various states their derivation, date and author of settlement, date of admission to the Union, area, &c., in a manner that we have not seen elsewhere. A book like this covering such wide ground cannot be expected to be without occasional inaccuracies and omissions, and we notice that "Selvas" has been omitted as a name for prairies in South America (p. 9, sec. 10); but the book as a whole is thoroughly trustworthy, and as we have said, will be found valuable as a work of reference to others besides the school-boy.

On turning to the Intermediate Geography the same care is observable. The maps are clear and minute, perhaps unnecessarily so for those for whom it is intended. It is a pity that the division into subjects, which is one of the merits of the larger work and and which is adopted in Calkin's Introductory book, is omitted, but the information is given by way of question and answer—a method which undoubtedly has merits of its own. The

book is well printed, though we notice on the chart of the clocks of the world (p. 3) that the hands at Hamilton, Ont., have got into their wrong place. In conclusion we are glad to hear that Mr. Lovell has an Introductory work in the press. We feel sure that it will be welomed by all educators.

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OUTLINES OF THE PHILOSOPHY OF ARISTOTLE, by Edwin Wallace. (James Parker & Co., Oxford and London.)

(For sale at Dawson Bros.)

This short outline of Aristotle's Philosophy is a work of peculiar merit, and will be of the utmost value not only to the classical student, but to the larger circle that interests itself in Philosophy and Literature. The author of the work is a well-known Oxford Tutor, and it is executed with admirable skill. Following upon the Introduction come six Parts, in which Aristotle's philosophical views are considered under the different heads of Logic, Metaphysic, Philosophy of Nature, Psychology, Moral and Political Philosophy, and Philosophy of Art. These are again subdivided into sections, in which a short but clear summary of the Stagirite's views upon different points is given. These summaries are followed by important passages taken from his different works in illustration and confirmation of the views of Aristotle's philosophy set forth by the writer. The importance attached by Plato, Aristotle's teacher, to education is well known, and the pupil was hardly behind his master. Our readers will be glad to read the following, which is the summary given in Part V., § 65, of Aristotle's views upon this subject:

"Education should be so guided by legislation as to make it correspond with the results of psychological analysis, and follow the gradual development of the bodily and mental faculties. Children should during their earliest years be carefully protected from all injurious associations, and be introduced to such amusements as will prepare them for the serious duties of life. Their literary education should commence with their seventh and be continued to their twenty-first year, this period being divided into two courses of training—the one from the seventh year to puberty, the other from puberty to twenty-one. Such education should not be left to private enterprise, but should be undertaken by the State, to which indeed the citizen belongs. There are

four main branches of education—reading and writing, gymnastic, music, and painting: and with respect to all it must be remembered that they should be studied not for any exclusive or utilitarian ends, but in the liberal spirit which will create true freemen. Thus, for example, gymnastic should not be pursued by itself exclusively, or it will issue in a harsh, savage type of character: painting must be studied, not merely to prevent people being cheated in pictures, but to make them attend to physical beauty: and music must be studied not merely for amusement, but on account of the moral influence which it exerts upon the feelings. Indeed, all true education is as Plato saw, a training of our sympathies so that we may love and hate in a right manner."

It is of course very easy to see that those for whom Aristotle laid down this system of education were not people who had to work for their living. So profoundly different was the social system of Athens from that of the Nineteenth Century owing to the presence of a vast body of slaves and resident aliens. Still there are many ideas in Aristotle's philosophy of education, the truth of which has only lately come home to us. And as it is in education, so in many other matters upon which the genius of Aristotle throws strong light. It was one of Comte's favourite aphorisms that the living are more and more governed by the dead; and it is a fact beyond dispute that no writer had more to do with moulding the thoughts of Europe, from his own times to the outbreak of the Reformation, than had Aristotle. To those, accordingly, who wish to gain some clear ideas about the nature of the genius of this intellectual giant, who possessed perhaps the most massive and comprehensive intellect among the sons of men, we would heartily recommend this little pamphlet. It is not the least of its merits that it is comprised in all in 70 pages.

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## McGILL UNIVERSITY.

### STATEMENT WITH RESPECT TO ITS PRESENT FINANCIAL POSITION AND WANTS.

On the re-organized condition of McGill University under its Amended Charter, it became apparent that without increased revenues it could not hope to enter on a career of practical usefulness. Its income was insufficient to support the requisite number of Chairs, its aids from the Provincial Government were

very small, and its real estate could not be rendered productive, except gradually. In 1856, therefore, an appeal was made to the citizens of Montreal to sustain it by subscriptions and permanent endowments.

To this appeal a most hearty response was made, as is shown by the list of benefactions in the Calender of the University, headed by the endowment of the Molson Chair of English Literature. In subsequent years this liberality was followed up by other benefactions, including, besides contributions to the general funds and to the Faculty of Applied Science, the endowment of the Peter Redpath, Logan and John Frothingham Chairs, the erection of the William Molson Hall and other buildings, the endowment of many scholarships, medals and prizes.

By these aids and the careful administration of the estate of the founder, the assets of the University have been raised from a very small amount to over $600,000, and its income from all sources to a sum of about $39,000 per annum. It has thus been enabled, by limiting its expenditures to the more essential requirements of educational work, to attain a position second to that of no University in the Dominion, and to develop its means of instruction in the Faculty of Arts and the Professional Faculties, on a scale not previously attempted in this country, and with the most encouraging results in respect to its numbers of students and graduates and the educational benefits actually conferred. It has also been enabled to promote the establishment and further the success of Theological Colleges, which are of the utmost value to the leading Protestant denominations of this Province, and has obtained large donations of books, specimens and apparatus for the use of the public; and latterly, through the munificence of Mr. Peter Redpath, it has been enabled to associate with itself the great museum which bears his name, and which will be to all time one of most attractive and useful of the educational economic institutions of the city.

It is to be observed, however, that the revenue of the University has at no time been more than barely sufficient for its maintenance, and that the most rigid economy has been necessary to enable the staff and appliances required for its actual work to be supported. It has hence arisen, that through the demands for improvement in educational faculties, along with the necessity within a few years past to make certain large capital payments connected with the estate and its burdens, the Governors have found that a deficit which has appeared in the published accounts of the two past years, but which they had hoped would have been effaced by new sources of income, threatens, owing to the recent and heavy fall in the rate of interest receivable on all investments, to increase to such an amount that it has become a serious question whether they will be justified in impairing the capital by the continuance of educational work on its present scale.

As to the present position of the University funds, it may be stated shortly, that while the assets stand at about $600,000, of this sum about $200,000 represents the amounts on the books (below the real values), at which stand the Buildings, Library, Specimens, Apparatus, and other items which do not yield revenue, and that about $400,000 is the amount of revenue-producing investments. As to the revenue, it cannot at present be estimated at more than $37,000, composed as follows:—About $25,500 interest from investments; about $5,000 from Government and other grants, while the remainder is receivable from annual subscriptions, fees, and other minor sources. This revenue would involve, on the recent scale of expenditure, a deficit for the coming year of over $6,500.

After much anxious deliberation, and weighing carefully the resources of the University, and the loss of usefulness and prestige certain to result from any diminution of the staff of instructors or their salaries, the Governors have resolved to retrench all expenditures that can be diminished without serious loss of efficiency, though by so doing they cannot avoid somewhat lessening the attractiveness of the University to students, but to postpone for one year any more serious retrenchments, in the hope that as heretofore the friends of education may come to their aid.

They feel that they are the more justified in this course by the fact that the demand for the higher education and for extension rather than diminution of the facilities offered, was never so great as at present, and that any recession from the position occupied by McGill University, could not fail to place it at a disadvantage in relation to other institutions, and to have an effect detrimental to the interests of this city, and of the Protestant population of the Province.

For these reasons they have decided to bring the claims of the University again under the notice of the public, and to ask, with a view of placing it in a secure position, and of enabling it to sustain its present usefulness, a further endowment of not less than $150,000. Failing this, they will be obliged, however reluctantly, to enter on a course of severe retrenchment and of diminution of the courses of study offered by the University.

Before calling personally on the friends of education, they desire to place before them this statement, in the hope that it may prove effectual in securing the desired aid, and they would venture to suggest the following methods in which such aid may be most advantageously given:—

1. By endowment of any professorship at present existing and not endowed, to the extent of not less than $2,000 per annum. Chairs so endowed will bear the names of the founders, or such other names as they may designate.

2. By contributions of sums to be invested for the general

maintenance of the University. For each such donation of not less than $1,000, the donor may obtain the perpetual presentation to a free tuition in the Faculty of Arts. For smaller donations, free tuitions for periods corresponding to the amounts, may be obtained, if desired. These free tuitions are now becoming valuable, as those already existing are in demand, and they are of special importance as aids to poor students, and to the students of the affiliated Theological Schools.

3. By the foundation of library, museum, or apparatus funds, for the maintenance and improvement of these essential appliances of the University; such funds to bear the names of the donors.

4. By annual subscriptions in aid of any of the operations of the University, for a term of years, or during the life of the donor.

While there are other objects to which the liberality of educational benefactors may be directed, the above are specially indicated, as those which would give relief in the present financial exigency.

Should the sums contributed under the above heads amount to $150,000, the Board of Governors would undertake to reserve the whole of the present College grounds for educational purposes in connection with the University; to this end securing the same by proper deed, to be held inalienably for the purpose aforesaid; and that the extent of the said portion shall include that part lying between Sherbrooke street and the College terrace.

The names of all donors will be entered and maintained on the published list of Benefactors of the University.

The Governors would earnestly invite the attention of their fellow-citizens to this appeal, as relating to an object which they believe to be of paramount importance. They hope at an early date to take a public opportunity to give more full explanations to the friends of the University, and in the meantime will be glad to afford any further information which may be desired as to its present financial position, and as to the precise directions in which aid is most urgently required.

On behalf of the Board of Governors,

CHARLES D. DAY, L.L.D., D.C.L.,

July, 1881. *Chancellor and President of the Board of Governors.*

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## NOTES AND NEWS.

*The Ontario Association for the Advancement of Education.*—The 21st annual convention held its meetings at Toronto on August 9th, 10th, and 11th. The programme of papers was most promising and included many interesting subjects. We hope to give a further account of the meeting and its results in our next number.

*Fellowships at Owens College, Manchester.*—The methods of the new world are finding approval and imitators in the old. A scheme of Science and Literature Fellowships, modelled after the pattern of the fellowship scheme of John Hopkins University, Baltimore, has been organized in Owens College, Manchester. These fellowships are intended to enable students, who have already taken degrees or received a sound and systematic education either in literature or science, to pursue some special branch of study. Appointments will be made to five fellowships in October next, and the value of each will be £100. Further details are given in *Nature* (July 14.)

*School Savings Banks.*—A circular of the English Educational Department gives some interesting information. We learn that in Ghent, out of 15,392 scholars in the elementary schools, no less than 13,032 have separate accounts in the savings bank, the average account for each depositor being about 35 f. In French primary schools the number of school banks has risen from 8,033 in 1877 to 14,273 in the present year, and the total sums deposited have increased from three millions to six and a quarter millions in the same time. England has nothing like this to show, though the *Pall Mall Budget* considers that Liverpool with its thirty-four school banks proves that it is habit and want of opportunity rather than national temperament that makes English children thriftless.

*Female Degrees in Italy.*—Two Italian girl students, the Signorina Carolina Magistrelli, of Mantua, and the Signorina Evangelina Battero, of Acqui, who had previously passed with great distinction examinations in Greek, Latin and Italian literature in the Roman University, took the other day doctors' degrees in natural sciences. The *Opinione* says that as far as it knows no woman has until now taken a degree in the Roman University since the foundation by Innocent IV in the thirteenth century.—*Pall Mall Budget.*

*Æsthetics in French Schools.*—The French Government has just taken under its special consideration the question of pedagogic art and scholastic æsthetics. We should be doing the permanent commission, of which M. Charles Bigot is the president, a great injustice to suppose that the project is one for teaching the young idea to sit up all night with an edelweis. It is rather an attempt to make fine art, in the best sense, play a more intelligent role in the education of the people, not by way of training or creating artists, but of forming the habit of precise and tasteful observation in the young, by accustoming their eyes to look with pleasure upon beautiful objects and with annoyance upon ugly ones. In his report M. Bigot proposes, in the first place, that the school buildings should be elegant and appropriate; that the

larger colleges should be provided with decoration in the form of friezes in painting and bas-reliefs, of frescoes and of faience; that pleasant tapestries and heliogravures of the best masters should adorn the bedrooms of the boys; and that each of the lycées should comprise a small and attractive representative museum. We confess that, carried to its full extent, the new French theory seems a little unfitted to take a part in the average schoolboy's hand-to-hand conflict with ink and slate-pencil dust. The ideas of beauty and taste usually come to men none the less efficiently because they were deeply unconscious of them in their salad days of football and the Greek delectus; and it is perhaps healthiest, in this as in so many things, not to be too precocious. Still, we have nothing but sympathy with M. Bigot in his wish to improve school architecture, and to institute little college museums.—*Pall Mall Budget.*

*Education for the blind.*—Mr. Fawcett, speaking at the annual prize festival of the Royal Normal College and Academy of Music for the Blind, said it was scarcely possible to lay too much stress upon the importance of keeping entirely distinct the cases of those who were blind from childhood and those who became blind in after life. They had two distinct problems to consider. They had to consider how the young blind could be best educated and trained, and they had also to consider how the life of the adult blind could be most happily spent, both for themselves and the rest of the community. Until quite lately the number of the blind in this country who were trained to earn their own living was but a very insignificant fraction of the whole. Now eighty per cent. of those who had left the institution—including men, women, boys, and girls—were maintaining themselves, a fact to which too much importance could not be attached. What the youthful blind required was a general and special education which would enable them to earn as far as possible their own living in after life, and what the adult blind required was not to be separated from the rest of society, but as far as possible to participate in all the happiness of home life.—*Pall Mall Budget.*

## LITERARY DEPARTMENT.

DEAN STANLEY AND PROF. BENFEY.—POEMS BY O. WILDE AND MISS BLIND.—MALLOCK'S ROMANCE.—KANT'S CENTENNIAL.—TAINE'S NEW VOLUME.—THE CHARACTER OF BONAPARTE.

By the death of Arthur Penrhyn Stanley, on July 18th, England lost a citizen of world-wide prominence, her greatest ecclesiastical statesman, and one of her most graceful writers on religious topics. Notwithstanding his incurable habit of inaccuracy of statement, the late Dean was a good classical scholar and was honoured by a place among the revisers of the New Testament He will be best remembered for his thoughtful and suggestive sermons

delivered in Westminster Abbey and before the University at Oxford, as well as for his courageous and liberal policy as Dean. He who so frequently pronounced the verdict of public opinion upon great men as they passed away is said to have uttered just before his death, the following words about himself: "I have laboured to make Westminster Abbey more and more a great centre of religious and national life, and I have done this in a truly liberal spirit without regard to the narrow limitations of creed or dogma." These words aptly describe the great work of his life. His funeral in the Abbey was a sign of the public estimate, being attended by distinguished men of all shades of creed, political opinion and nationality.

In Theodore Benfey, of Göttingen, Germany has lost another great scholar: like Bernays he was of Jewish parentage. He did much to enlarge the boundaries of Sanskrit philology, and gave the last years of his life to the preparation of a Vedic grammar. Among his claims to the gratitude of scholars may be mentioned his decipherment of the cuneiform inscriptions and his discovery that European fables are to be traced not to an Indian merely, but to a Buddhistic source. He was celebrated for his witty sayings, one of which was, that England produced great scholars in spite of her universities.

Three books lately published in England are interesting as signs of the times. Oscar Wilde's volume of Poems may be regarded as the evangel of the new creed of Æstheticism differing from other gospels in coming after, instead of before, the cult it seeks to establish. The author who lives in London is of Irish birth and is generally supposed to have been the original of one of *Punch's* amusing society characters. His attitude in regard to current thought is indicated by the following lines from one of his sonnets:

"In dreams of Art
And loftiest culture I would stand apart,
Neither for God, nor for his enemies."

It may be unnecessary to remind my readers that, this school regard Keats as their forerunner and ideal, and Mr. Wilde makes so much use of the works of this poet and others, as seriously to impair his claims to originality. His Poems have caused much difference of opinion, the *Academy* reviewer (Oscar Browning) maintaining that with "stern self-discipline there is no boyish dream of fame or ambition which he may not at some time satisfy." The *Athenæum* on the other hand considers that "work of this nature has no element of endurance, and Mr. Wilde's poems, in spite of some grace and beauty, as we have said, will, when their temporary notoriety is exhausted, find a place on the shelves of those only who hunt after the curious in literature. They may perhaps serve as an illustration in some chapter on the revival in the nineteenth century of the Gongorism of the sixteenth."

In "the Prophecy of St. Oran and other Poems" by Mathilde Blind we have an attempt to express in poetic forms the doctrines of the English Positivists. Such an endeavour was made before by George Eliot and produced at least one poem of great beauty ("O may I join the choir invisible"). The present volume is said to have great poetic merits, though the legend of Oran rising from the tomb to declare to St. Columba and his followers that

there is no God, judgment or future state, seems a somewhat inconsistent and Hibernian conception.

Meanwhile the great opponent of the Positivists, Mr. Mallock, has again appeared before the public with "a Romance of the Nineteenth Century." The book whatever else it may be is not a Romance in the ordinary acceptation of the term, but a series of Platonic dialogues with a thin thread of narrative and description running through it. It is undoubtedly interesting and very significant of the times in which we live, though it can hardly be recommended for general reading. It has been severely handled by *all* the Reviewers, but this was naturally to be expected, as its author's former volume won great popularity in the teeth of similar opposition. Mr. Mallock however has the good fortune which is often denied to better writers than himself—he has the ear of the great reading public.

A centennial celebration of the publication of Kant's "Critique of Pure Reason" was held during July at Saratoga Springs, under presidency of the head of Amherst College. Such popular commemorations of poets and other literary characters are common enough, but the celebration of a work of metaphysical philosophy is a curious phenomenon. Kant was the great restorer of philosophy and led the reaction against the scepticism of Hume. His book dealing with Pure or Theoretic Reason was followed by Critiques of Practical Reason and of Judgment. But though Kant's Pure Reason was an epoch making work, he will probably be best known by his formulated standard of moral action, the so-called Categorical Imperative, "Act as if the maxim of your action ought to become the universal law of nature," *i.e.*, that action is bad that cannot be desired to be turned into an universal law.

M. Taine has paid so much attention to England and the English, that his name is as familiar among English speaking people as one of their own writers. A new volume has appeared carrying on his History of the French Revolution, under the second title of "The Jacobin Conquest," His general view of this period is that the Jacobin, by knowing his own mind and having no scruples, succeded in making himself supreme. The respectable people were timid, unintelligent and vastly two careful of their skins and their comfort to offer such a resistance as might have saved the country from the horrors of the Reign of Terror.

The character of Napoleon Bonaparte has a charm about it which attracts historians and essayists now and again to attempt its solution. Prof. Seeley has lately made it the occasion for an article in *Macmillan*. The chief results which he establishes are that Bonaparte was produced not by the Revolution but by the war, and was the child of the *levée en masse*; the Imperial system and the French ascendancy in Europe grew from the same causes. Bonaparte's practical qualities were shown in the fact that he established a real government; his ideal was an adaptation of Oriental romance. In his view of his personal character he takes a stand strongly contrasted with that of Carlyle. Bonaparte is not an instance of a nature originally noble which was corrupted by power or carried away by passion. He rather proves that "there really is

a human type in which vast intelligence is found dissociated from virtue." He was not impelled by the desire to do good, but by "an almost maniacal" love of fame. In exact contradiction of Carlyle's conception, the hero in this case "is really a great deceiver, a man who revels in the thought of governing mankind by their credulity; who, brought up in Europe, as it were, discovered for himself the art of the great Prophet conquerors of Asia." What has generally been regarded as an aberration in Napoleon is thus represented as his main design. R. W. B.

## SCIENTIFIC DEPARTMENT.

SALMON ON THE PACIFIC COAST—MOUNTAIN SICKNESS.—INFERNAL MACHINES—DAWSONITE.—STANDARD TIME.

During a portion of the year the canning of Salmon gives employment to a large number of persons on the Pacific Coast, and the Salmon thus preserved is sent in large quantities to Europe, as well as to the eastern part of our own continent. It may be interesting, then, to know something of the habits of these fishes which both directly and indirectly furnish food, to a greater or less extent, to many of the inhabitants of Europe and America. From observations recently made, it seems there are at least five species of Salmon in the Northern Pacific. Certain of these habitually *run*, or leave the ocean and move up freshwater streams for spawning purposes, in the Spring; whilst others *run* in the Fall. Those that *run* in the Spring ascend only rivers that have sufficient volume to send their waters well out to sea. The Spring-running Salmon are more desirable for canning purposes, for the richness of their flesh has not been reduced by preparation for spawning until long after they have entered the rivers. When once the Salmon have left the ocean for the river they push on and on, without ever taking food till they reach a place suitable for spawning, in search of which they ascend the streams for distances varying from 4,000 to 8,000 miles. As they ascend, their bodies become covered with bruises received in their struggles with the rapids of the rivers. At the same time fungi and parasitic worms attack them, the scales sink into the skin, the flesh becomes much paler in color and the whole fish emaciated. These fish all die as soon as the spawn is deposited, many indeed without having spawned. Those engaged in the business of canning take advantage of the Salmon ascending the rivers to spawn, and set nets to intercept them in their upward course.

As one ascends from the earth's surface the air becomes rarer, rendering breathing difficult, whilst the diminished atmospheric pressure, being insufficient to counteract the force with which the blood is sent from the heart, permits rupture of the more delicate blood-vessels, causing bleeding in parts of the body. The effects of living in such rarified air is termed "mountain sickness." Mr. Edward Whymper who recently ascended Mts. Cotopaxi and Chimborazo has related some interesting facts connected with "mountain sickness." At a height of 16,500 feet mules staggered beneath loads less than half as heavy as those they usually bore with ease. Mr. Whymper and his

servants became feverish and could not obtain air enough except by breathing with open mouths, a proceeding which parched their throats. This induced a craving for drink. They found themselves, however, unable to drink, they could only sip and found it impossible to take a quarter of a pint at a draught. The normal rate of breathing was greatly accelerated and they were compelled every now and then to give a spasmodic gulp just as fishes do when taken out of water. A desire to smoke was felt, but the pipes would scarcely burn from lack of oxygen. One very peculiar fact was that at heights of 1900 feet the party could not make long steps. Mr. Whymper says "our steps got shorter and shorter until at last the toe of one foot touched the heel of the previous one."

Great indignation and surprise have been excited by the recent discovery of implements of destruction on British steamers sailing from American ports. These so-called "infernal machines" are simply chambers containing an explosive, the essential constituent of which is nitro-glycerine, together with a clock-work which is arranged so that in a given time it will cause a hammer to strike the explosive. This dangerous substance, nitro-glycerine, is prepared from the well-known and much-used glycerine. When glycerine is added to strong nitric acid at a low temperature and gradually mixed with concentrated sulphuric acid, nitro-glycerine separates as a yellow oil, the composition of which is represented by the formula $C_3 H_5$ (No. 3)$_3$. It is not an easy matter to explode nitro-glycerine by means of heat, indeed it is said that a lighted match may be plunged into it with perfect safety. When however it is exposed to a concussion an explosion takes place at once. The object of the clock-work and hammer in these machines is to bring about a concussion within a certain length of time after the clock-work is set in motion. Glycerine itself which has so many economic uses is quite harmless. It is prepared from fats which are compounds of glycerine and fatty acids. The purest glycerine is obtained by exposing fats to the action of steam, but a large quantity is obtained as a by-product in the manufacture of candles. Tallow is saponified by lime when the glycerine separates in a crude form and this when purified forms the commercial article.

Dawsonite is a hydrous carbonate of aluminium, calcium and sodium, which was first brought before the Scientific world in 1874 by Dr. B. J. Harrington of McGill College, who named it in honor of Principal Dawson. This mineral has been discovered in very few localities so far as we know, although it is comparatively abundant in some of the dykes of the Montreal Mountain. Dawsonite has recently been found at Piau in Tuscany, and the analyses which have been made show that the Tuscan specimens vary but little in composition from those obtained at Montreal.

In our August issue we presented a condensed report of a paper on Uniform Standard Time, read before the Society of American Civil Engineers at their late meeting in Montreal, by Mr. Sandford Fleming, C.M.G. We are glad to learn that Mr. Fleming is to attend the International Geographical Congress at Venice, in the interest of the question of Standard Time, and is already on his way thither.

J. T. L.

## CORRESPONDENCE.

### SCHOOL LITERATURE.

*To the Editor of the* EDUCATIONAL RECORD:—

SIR,—I am very glad to see that the High School boys are getting up a Library, and I have no doubt that all friends of the school will do their best to ensure the success of that undertaking.

I beg to offer a suggestion with regard to the *constitution* of the Library. Might it not include a lending library of good and amusing fiction for the use of the younger boys? When I was a master, last autumn, in the High School, I was surprised (as an old English schoolboy) to find that the good, healthy novels of Marryat, Mayne Reid, Ballantyne, etc., were comparatively very little read, and that their place was taken by the odious "dime novels" of vulgarly depicted horrors, such as are issued by the million in New York. One day I had the pleasure of seizing a choice specimen of these compositions, and, before consigning it to the flames, I read just enough of it to convince me that a long course of reading among such abominable trash would do just about as much harm to the average third form boy as could well be done. But these dime novels cannot be *suppressed*, and the best plan, in my opinion, is to endeavour to *supersede* them; *i. e.*, to try to destroy their baneful attraction by setting up other books in their place that may prove more attractive. It might be objected that if Marryat and Ballantyne, etc., were more attractive than the dime novel, they *would* be read in its stead; but I think that an answer to this objection is sufficiently given by the difference in *price* between the two classes of books. Capt. Marryat's books, for instance, are (or were in my school days) a shilling, which I suppose would here be 30 cents. Now to a small boy's purse the difference between ten cents and thirty is pretty considerable, and we can hardly blame him if he keeps the thirty cents—if he has them—in his pocket; especially when we remember that, owing to bad print and cheap paper, the dime novel can offer about as much reading matter as the average novel of Marryat.

Now, Sir, it is heart-rending to think that the pure and beautiful mind of a boy should be polluted by low and poisonous literature. Schools contain quite enough of evil without this. If my plan be considered feasible by the Library Committee, I have no doubt that subscriptions will come in; and, if a nucleus be once formed, a trifling subscription—of, say, five cents for each boy per term, for the use of these books—would soon ensure the growth of a really good library. But of course all details with regard to the matter can be settled by the Committee. I merely make this suggestion in a general way, and without having any elaborate plan to put forward. Of the importance of the matter there can be no two opinions. We all know the old saying about making the nation's songs and letting him who will make their laws; and I venture to parody that saying and assert that if I may prescribe a boy's reading out of school, others are welcome to teach him and manage him in school as they like, and I will back my influence to be the greater. We know that among the *blest* are the "pure in heart," and if purity is to be sapped in childhood, how is it ever to be re-established?

My letter is already long enough, but I should like to add that if my suggestion is approved by the Committee, I shall be only too glad to give any help I can in the carrying of it out.

I am, Sir, etc.,

N. PROWER.

Montreal, July 23rd.