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# Educational Weekly

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## The Educational Weekly,

Edited by T. ARNOLD HAULTAIN, M.A.

**TERMS:** Two Dollars per annum. Clubs of three, \$5.00. Clubs of five at \$1.60 each, or the five for \$8.00. Clubs of twenty at \$1.50 each, or the twenty for \$30.00.  
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JAMES V. WRIGHT, General Manager.

TORONTO, SEPTEMBER 30, 1886.

AN old and respected reader of the EDUCATIONAL WEEKLY, commenting on our leading article on the subject of Obedience, says:—"Some [men] are so swollen out with a sense of their own importance, so encased in the bomb-proof of their own excellence, that it would require a very sharp poignard and a very well pointed thrust—a "thou art the man"—to penetrate their thick hides. . . . What a man wants chiefly, first of all, is not Latin and Greek, and such like, but a true knowledge of himself, a hatred of all that he sees little and mean in his own heart, and an aspiring to that which is God-like."

Noble words and true; old also as the Delphic inscription *γνῶθι σεαυτόν*, and consecrated by the life and words of the most God-like Man. We do not enough consider such subjects; we are too much occupied with "Latin and Greek, and such like;" we pay too much attention to methods and illustrations, to literature and science, to art and current opinion. "Hellenism" reigns supreme. "Hebraism" has been forced to abdicate.

The great lesson for us teachers to learn is that both must go hand-in-hand. Latin and Greek are necessary, but conduct—that is the pearl of great price for which all the knowledge of the assembled world would not suffice. This it is that we must remember; and remember above all in the school-room. There we teachers are looked upon, whether we will it or not, as exemplars; and our first and all impor-

tant duty will be left undone if we do not in our smallest actions show to our pupils that we ourselves are "walking staunchly by the best light that we have;" are "strict and sincere with ourselves;" are "not of the number of those who say and do not;" are "in earnest."

THE following sentences from the *Spectator* (London, Eng.) contain much food for thought: "There is nothing in the mere development of intelligence to remove the original causes of crime or to cure either malice, or lust, or greed, and it died away before the evidence that education rather changes the form of some kinds of criminality than extinguishes criminality itself. The educated man swindles when the boor would steal, but the instinct of thievishness is the same in both, while greed is slightly increased by education. Education does not even make all men intelligent; for the new anarchist faction, which rejects all the teaching, not only of history, but of the commonest facts of experience, and even the conclusions of arithmetic, is led by educated men, sometimes of high intellectual attainments. M. Elise Reclus, author of the most delightful and learned geographical books, is an anarchist; Prince Krapotkine, who counsels the destruction of society by force, is a man of unusual cultivation; Mr. Hyndman, who, while he disclaims anarchism, avows a desire to seize all capital, equalize all men, and compel all to labour, is a graduate of London University; and many of the cosmopolitan revolutionists are men familiar with many literatures. We have further been told, time and again, and are still told by the advocates of popular education, that that would be in itself a strong guarantee for social order. Education has gone on diffusing its benefits among larger proportions of mankind, and now while New England, Scotland, and Prussia, formerly among the most educated states, were also the most orderly, there are in Germany five hundred thousand socialists; and all over the western world, discontent with the order of society, especially

upon points which cannot be altered, appears to grow deeper and more violent. Thus, while education may still give us much in the end, the old enthusiastic hopes from it were, as regards the time of their fruition, evidently illusory. It is no more a panacea than any other, and the good it does is as slow to develop itself as the good that rain does. We have all been just like the poor, and have expected pleasant results too soon, and from mere decrees and from too little labour."

OUR colleges will soon re-open for the Michaelmas term, and the men who are returning or going up for the first time are doubtless thinking much about college life and aims and work. Whether the work is an irksome or pleasurable task depends largely upon the man himself and upon the nature and extent of his aims. In the Life and Letters of the Rev. F. W. Robertson, of Brighton, there is a passage in a letter to a young friend on the advantage of an honour course which may interest those who are about to enter on college life. In this letter Robertson says: "I believe with you that honours make little or nothing in practice, so far as they bear upon a man's future success. That is, the prestige of them does little in life—is forgotten, or slightly looked upon by the world at large. But the mental habits got insensibly during the preparation for them are, I think, incapable of being replaced by anything; and this quite independently of whether a man succeeds or fails in his attempt. To my idea the chief advantage is the precluding of discursiveness. For three years or four, a man has an aim—a long-distant, definite aim. I defy any young man to create this aim for himself. Grant his chosen aim well mapped out; still he has chosen his own aim, cannot be certain he has chosen well, and becomes distrustful of the wisdom of the plan because his own. At college I did this, and now I feel I was utterly, irreparably wrong. Now I would give £200 a year to have read on a bad plan, chosen for me, but steadily."—*Evangelical Churchman.*

## Contemporary Thought.

THERE are too many children on the streets at night. Parents, if you could realize the immoral education they are receiving, you would certainly be less lenient in this direction. Insist that the parental roof covers all the children's heads at nightfall, and set a worthy example yourself.—*St. Thomas Times.*

MEN read books on this topic, and attend lectures on that; decide that their children shall be instructed in these branches of knowledge, and shall not be instructed in those; and all under the guidance of mere custom, or liking, or prejudice, without ever considering the enormous importance of determining in some rational way what things are really most worth learning.—*Herbert Spencer.*

POPULAR opinion appears to consider drawing purely as an accomplishment. This is a popular fallacy. The earliest efforts of a child with a pencil are attempts to represent things. There is scarcely a person in Topeka but has more use for ability to draw than for ability to repeat the rules of syntax, to solve problems in the "rule of three," or to describe the vegetation of the table land of Thibet. Yet school time is willingly given to the latter and denied to the former.—*D. C. Tillotson, Topeka, Kan.*

THE system of popular election of the persons who shall have the practical management of National Education produces occasionally some remarkable results. Amongst these is the frequent recurrence of debates on questions of fundamental consequence, which the speakers appeared to think they have discovered for the first time. No references to ascertained facts, or to previous discussions, occur in debates at some of our School Boards upon subjects on which authentic facts are available, and on which the last word of argument has long ago been said.—*The Schoolmaster.*

CHILDREN get much of their education from one another, and education by companionships may undo the best home-training, just as the home lessons may destroy those of the schools. Young persons are receiving an education in their modes of thought and speech, and in their estimates of men and things, and their judgments of right and wrong, from their associates, quite as much as from their teachers in school. It is a noted fact that the young will soon become what their companions are, and the worst are usually the best teachers, for men and children will imbibe an evil contagion more readily than they can impart a good influence. Evil is communicated more surely than good.—*Ex.*

"TENNYSON'S last effusion," writes Mr. James Waylen, "contains a gross libel on 'our fathers' who, he asserts, 'drove from out the mother's nest that young eagle of the West.' I beg to remind him that our fathers did nothing of the kind. Laudean priestism it is which has to be credited with that affair; whereas 'our fathers' were so far from participating in it that when the Commonwealth arose they gave the name of *Mayflower* to one of their war ships in order, no doubt, to help keep the pilgrim fathers in everlasting remembrance. The agency which, like a upas-tree, then shed its influence over British society, and which is not yet extirpated, was a genus alienum, a genus

anti Britannicum, anti Christianum, anti Humanum."

THE central aim in all the so-called "new methods" of teaching reading is to cultivate the thought and understanding. The mental side of reading is placed before the oral expression. Great attention is given to thought-seizing power of the mind through the eye, so that thoughts are seen on the printed pages as wholes, just as they are received through the ear. The "internal digestion" of what is read is deemed of greater consequence than "delivery." In short, silent reading is cultivated by every variety of means until the pupil can rapidly scan the printed page, and by a sort of alchemy of mind, tell in his own language what he has gathered. Can there be mental exercise better than this to give flexibility of thought and fluency of expression?—*Supt. S. T. Dutton, New Haven, Conn.*

IN the ideas of good and evil there is doubtless, something more and far higher than is found in the ideas of mere pleasure and pain. But nobody could know the idea of pain from mere sense-perception. It is from consciousness only that the ideas of pleasure and pain are derived. Nobody has an idea of pain, or could understand what the word means, who had not felt a pain. Nobody could know an idea of pleasure who had not been pleased with something. And I cannot doubt that however exalted our ideas of good and happiness may be, they had their beginning and origin, their starting-point at least, in the consciousness of pain and of pleasure or enjoyment. If I remember rightly, Plato somewhere introduces Socrates as saying that all good is relative—that is, whatever is good is good for something, if not it is good for nothing. Hence we call an object or person as one not good—in reference to the welfare of others—of all concerned perhaps—of the whole universe, including the glory and honour of God, the Creator and Moral Governor of the Universe. But the idea of goodness comes doubtless from personal experience—the consciousness of pleasure and of good in ourselves, even though in some cases that good comes as a result of what is painful to us, or is accompanied by something that is painful. But when we turn our thoughts from ourselves and the present moment, we call the object or event good. Mere pleasure is personal and selfish, but good is universal, and implies self-sacrifice on our part, or at least a willingness for such sacrifice.—*Prof. W. D. Wilson, LL.D., of Cornell University.*

"You ought to have heard Harriet Adam's paper at the alumnae re-union," said Nan. "Her topic was the quality of women's teaching as compared with men's. She believes we can do as good work as men; but she doesn't think we always do. And she attributes our deficiencies to our failure to make the most of our spare time. Vacations being so much longer in our profession than in any other, the judicious use of them becomes, relatively, much more important. She thinks we ought to make it our principle to spend them in laying up something that will be helpful when work begins again. It needn't be in the line of study always. A reserve force of health and energy and good spirits may be just as valuable." Tabitha nodded. "Thank you, Nan, for helping me out with my argument. Harriet's

practice bears out her preaching, as I happen to know. I remember her saying to me once, *apropos* of this very subject of clothes, 'I'm not ashamed to say I can't afford the money to buy handsome dresses. Why should I hesitate to say I can't afford the time to make my dresses up handsomely? My time and strength are more valuable to me than money. I make a poor bargain if to save money I waste time. If there is anything I am heartily glad to pay out money for it is leisure.' And so, from the very first, Harriet made it a point never to have any more sewing than she could afford to hire done. And the time the rest of us spent with our machines, she had for out-looks and for books; and, as she grew more prosperous, for travel. For a year or two I thought she was making a great mistake. She used to look almost shabby when I met her at re-unions (and yet one scarcely thought of her clothes after she began to talk—she had so much to say that was worth hearing). But now see her, with her nine hundred a year and expenses, besides the dignity of a seminary position! Oh, I tell you, girls, teaching is just like any other business—it pays to put capital into it, even if you have to scrimp yourself in other ways for a while."—*From "A Vacation Experiment," by Lily S. Rice, in the New England Journal of Education.*

WHAT are the lessons to be learnt from this [the choice of books] discussion by readers who are anxious to make the most of their opportunities, and who (notwithstanding the blandishments of the read-anything-you-like school of theorists) would choose to make themselves acquainted with the best books in preference to the worst? There are many; but the leading moral appears to be that we shall have to depend in this matter largely upon ourselves, upon our own insight and discretion, for it is quite plain that our doctors are in hopeless disagreement. The main thing, after all, is the love of reading; to strive after that if we have it not, to foster and cultivate it when possessed. "If you do love me," says Portia to her suitor, Bassanio, as he stands before the three mysterious caskets, hesitates as to the choice on which his life-happiness depends, "if you do love me, you will find me out." In the intellectual life we are confronted not with three caskets, but with many. Of two things, however, we may be assured: first, that if we love the treasure we shall find it out; and, secondly, that it is not, like Portia's portrait, contained in one casket only. "The thing to ask about a book," says Walt Whitman, "is this? Has it helped any human soul?" And Mrs. Barrett Browning struck a true note when she wrote in "Aurora Leigh":

"We get no good  
By being ungenerous, even to a book,  
And calculating profits—so much help  
By so much reading. It is rather we  
We gloriously forget ourselves and plunge  
Soul-forward, headlong, into a book's profound,  
Impassioned for its beauty and salt of truth—  
'Tis then we get the right good from a book."

Let these, then, be the tests for our books. Are they helpful to human souls? Do they impassion us with their "beauty and salt of truth"? If so, though banned by all the Professors, they are the books for us to read. If not, whatever name they bear on their title-page, we may well leave them alone.—*H. Tattersall in The Schoolmaster (London, Eng.)*

## Notes and Comments.

WE hope very shortly to be able to give our readers a series of practical papers on the Literature for the Entrance Examinations to be held next December, having arranged with several gentlemen eminently fitted to provide that which will be most suitable and helpful for teachers on this important subject.

A CORRESPONDENT writes to us as follows:—"Would you be so kind as to tell me where I can get a book containing examination papers suitable for pupils preparing for Entrance Examinations." Vols. I. and II. of the EDUCATIONAL WEEKLY contain a great many of such papers. See Indexes. The *Examination Manual*, published by the *Supplement Co.*, Toronto, at 25c., also contains many such papers.

THE Canadian Government has issued a pamphlet, entitled "What British Settlers of the Canadian North-West Say about the Country," for distribution at the Colonial Exhibition. The pamphlet is made up of extracts from letters of testimony collected from farmers in Manitoba and the Canadian North-West, through the efforts of Mr. McTavish, the Land Commissioner of the Canadian Pacific Railway in Winnipeg, and Mr. Alexander Begg of the company's London office.

THE Ohio *Educational Monthly* says:—Perhaps the most useful part of the contents of a medical journal is that which consists of accurate reports of cases treated, detailing the whole history of the practitioner's dealing with his patient, and the results, whether good or bad. Might not the teachers' profession gain much by introducing into educational periodicals some such method of recording actual experiences with individual pupils in the schoolroom? The writer has often thought that great benefit would arise to teachers from *comparing cases*, especially in the treatment of incorrigible pupils. The pedagogic art, like other arts, is based upon the knowledge of facts. We suggest that some progressive journal start a department of Recorded Cases of Educational Treatment.

"WE incline to the idea," says an exchange, "that the provision of facilities for higher education ought to be left to private benevolence. There are plenty of wealthy men in the country, and there would be no lack of colleges or college endowments if the Ontario Legislature were to withdraw its appropriations from Toronto University. Toronto would still maintain a College, and Hamilton, Kingston, Ottawa and London would compete for the supremacy. The several Churches would rally to the support of their respective institutions, and wealthy

men would have more heart to make subscriptions and endow chairs if the State left them to do that work. In short, the State supported College and University is a damper upon private benevolence."

"WE, in common with the general public," says the *Schoolmaster* (London, Eng.), "are so unused in England to see public honours conferred upon teachers, that when we read the announcement that a Mr. Philip Magnus had received the honour of knighthood at the hands of her Majesty, we inquired whether there was another Philip Magnus besides the teacher, author, and indetachable head of the City and Guilds of London Institute, and first principal of the Finsbury Technical College. We are glad to find that this Mr. Magnus, and no other, is the recipient of the honour. Mr. Magnus is doubtless rewarded more for his public work before the eyes of the public than for his labours in the schoolroom; but this departure having been made, the time will come when the silent unobtrusive work in the schoolroom will receive its public reward. We take it that the profession is honoured in the person of Sir Philip Magnus. The fountain of honour has been long open to doctors and lawyers; why should schoolmasters be excluded from its cheering influences?"

A CORRESPONDENT has requested us to publish a list of text-books authorized by the Department. A full list would include, we fear, many books that are out of print, and some that ought to be out of print. We have before us only a somewhat antiquated regulation on the subject of authorized text-books, but as soon as the latest instructions have reached our office we shall be glad to give the information desired. Meanwhile, the following list would supply a good high school course:—

### ENGLISH.

Craik's English Literature and Language.  
Bain's Rhetoric and Composition.

### LATIN.

Dr. William Smith's *Principia Latina*, I., II.

Harkness's Latin Grammar.

Bradley and Arnold's Latin Prose Composition.

Latin Composition by means of the English Idiom, by E. A. Abbot.

For advanced work, the Latin Grammar of Madvig or Kennedy may be consulted.

### GREEK.

Farrar's Greek Syntax.

Harkness's First Greek Book.

Arnold's Greek Prose Composition.

Liddell and Scott's Greek English Lexicons.

Jelf's Greek Grammar for advanced work.

### FRENCH.

De Fivas' *Grammaire des Grammaires*.

De Fivas' Elementary French reader.

Surenne's French Dictionary.  
Brachet's Public School Elementary French Grammar. (March, 1879)

### GERMAN.

Ahn's Grammar.

Adler's Reader.

### MATHEMATICS.

Hamblin Smith's Arithmetic.

Elements of Algebra, by Loudon, Toddhunter, or Hamblin Smith.

The High School Algebra, by W. J. Robertson.

The Elements of Algebra, by J. A. McLellan.

Euclid's Elements of Geometry.

Kirkland's Statics.

Elementary Hydrostatics, by J. Hamblin Smith, M.A.

Magnus's Lessons in Elementary Mechanics.

Wormell's Principles of Dynamics.

### HISTORY, GEOGRAPHY, AND ANTIQUITIES.

Longman's Epochs of Ancient History.

Longman's Epochs of English History.

Edith Thompson's English History.

Green's History of the English People.

Schmitz's History of Greece.

Schmitz's History of Rome.

Jeffers' Primer Canadian History. (March, 1879.)

First Steps in Classical Geography, by Prof. Pillans.

Schmitz's Ancient Atlas.

The Books on Modern Geography authorized for Public Schools.

### PHYSICAL SCIENCE.

The Elements of Structural Botany, with special reference to the study of Canadian Plants, by Professor Macoun and H. B. Spotton, M.A.

Kirkland's Chemistry.

Reynold's Chemistry.

Chemistry, by H. E. Roscoe (Science Primers).

Lessons in Elementary Chemistry, by Prof. H. E. Roscoe.

Miller's Inorganic Chemistry.

Lessons in Elementary Physics, by Professor Balfour Stewart.

Physiology (Science Primers), by Prof. M. Foster, M.A.

Lessons in Elementary Physiology, by Prof. Huxley.

Introductory Text-Book on Physical Geography, by David Page, F.R.S.E.

### MISCELLANEOUS.

Book-keeping, by Beattie and Clare.

Walter Smith's Drawing Series and Manuals.

Physical Culture, by E. B. Houghton.

The High School Reader.

English and Canadian History for Public Schools, by W. J. Robertson and G. Mercer Adam.

## Literature and Science.

### THE RECENT PROGRESS OF SCIENCE.

WE take the following from the address of Sir William Dawson, President of the British Association, delivered at Birmingham on the 1st of September:

The period of twenty-one years that has elapsed since the last Birmingham meeting, has been an era of public museums and laboratories for the teaching of science from the magnificent national institutions at South Kensington and those of the great Universities and their colleges down to those of the schools and field clubs in country towns. It has, besides, been an era of gigantic progress in original work and in publication—a progress so rapid that workers in every branch of study have been reluctantly obliged to narrow in more and more their range of reading and of effort to keep abreast of the advance in their several departments. Lastly these twenty-one years have been characterized as the coming of age of that great system of philosophy with which the names of three Englishmen, Darwin, Spencer, and Wallace, are associated as its founders. Whatever opinions one may entertain as to the sufficiency and finality of this philosophy, there can be no question as to its influence on scientific thought. On the one hand it is inaccurate to compare it with so entirely different things as the discovery of the chemical elements and of the laws of gravitation; on the other, it is scarcely fair to characterize it as a mere "confused development" of the mind of the age. It is, indeed, a new attempt of science in its maturer years to grapple with those mysterious questions of origins which occupied it in the days of its infancy, and it is to be hoped that it may not, like the Titans of ancient fable, be hurled back from heaven, or, like the first mother, find the knowledge to which it aspires a bitter thing. In any case, we should fully understand the responsibility which we incur when, in these times of full-grown science, we venture to deal with the great problem of origins, and should be prepared to find that in this field the new philosophy, like those which have preceded it, may meet with very imperfect success. The agitation of these subjects has already brought science into close relations, sometimes friendly, sometimes hostile, it is to be hoped in the end helpful, with those great and awful questions of the ultimate destiny of humanity, and its relations to its Creator, which must always be nearer to the human heart than any of the achievements of science on its own ground. In entering on such questions we should proceed with caution and reverence, feeling that we are on holy ground, and that though, like Moses of old, we may be armed with all the learn-

ing of our time, we are in the presence of that which while it burns is not consumed—a mystery which neither observation, experiment, nor induction can ever fully solve. In a recent address the late President of the Royal Society called attention to the fact that within the lifetime of the older men of science of the present day the greater part of the vast body of knowledge included in the modern sciences of physics, chemistry, biology, and geology has been accumulated, and the most important advances made in its application to such common and familiar things as the railway, ocean navigation, the electric telegraph, electric lighting, the telephone, the germ theory of disease, the use of anaesthetics, the processes of metallurgy, and the dyeing of fabrics. Even since the last meeting in this city much of this great work has been done, and has led to general results of the most marvellous kind. What at that time could have appeared more chimerical than the opening up by the enterprise of one British colony of a shorter road to the East by way of the extreme West, realizing what was happily called by Milton and Cheddle, "the new North-West Passage," making Japan the next neighbour of Canada on the West and offering to Britain a new way to her Eastern possessions; or than the possibility of this Association holding a successful meeting on the other side of the Atlantic? To have ventured to predict such things in 1865 would have appeared quite visionary, yet we are now invited to meet in Australia, and may proceed thither by the Canadian Pacific Railway and its new lines of steamers, returning by the Suez Canal. To-day this is quite as feasible as the Canadian visit would have been in 1865. It is science that has thus brought the once widely-separated parts of the world nearer to each other and is breaking down those geographical barriers which have separated the different portions of our widely-extended British race. Its work in this is not yet complete. Its goal to-day is its starting point to-morrow. It is as far as at any previous time from seeing the limit of its conquests, and every victory gained is but the opening of the way for a further advance. By its visit to Canada the British Association has asserted its Imperial character, and has consolidated the scientific interests of Her Majesty's dominions, in advance of that great gathering of the industrial products of all parts of the Empire now on exhibition in London, and in advance of any political plans of Imperial Federation. There has even been a project before us for an international scientific convention, in which the great English Republic of America shall take part—a project the realization of which was to some extent anticipated in the fusion of the members of the British and American Associations at Montreal and Philadelphia in 1884. As a Canadian, as a past President

of the American Association, and now honoured with the Presidency of this Association, I may be held to represent in my own person this scientific union of the British Islands, of the various Colonies, and of the great Republic, which, whatever the difficulties attending its formal accomplishment at present, is certain to lead to an actual and real union for scientific work. In furtherance of this, I am glad to see here to-day influential representatives of most of the British Colonies, of India, and of the United States. We welcome here also delegates from other countries, and though the barrier of language may at present prevent a larger union, we may entertain the hope that Britain, America, India, and the Colonies, working together in the interest of science, may ultimately render our English tongue the most general vehicle of scientific thought and discovery—a consummation of which, I think, there are at present many indications.

THE shining metallic incrustation found upon the teeth of some of the cattle which are pasturing along the banks of the Carson River, California, has been popularly pronounced to be a coating of gold and silver deposited upon the teeth from the mineral impregnation of the water and grass, attracted through the magnetic action of the animal's body. Some of the bullion incrustation or deposit was submitted recently to Professor F. E. Fielding, Chief Assayer of the Consolidated California and Virginia Assay Office in this city, says the *New Orleans Times-Democrat*. Upon critical analysis of the material he pronounces it to be pure calcium sulphide, with not the least trace of either gold, silver or quicksilver. Thus another hopeful delusion is dispelled, and the contemplated source of revenue from scraping the animal's teeth periodically rendered useless and worthless.—*Ex.*

"CAREFULNESS," says one, "is to a man's work what oiling is to machinery; it puts a smoothness, a beauty into it, as the sun often hangs a golden fringe on the retiring cloud. Resolving to see the world on the sunny side, we have almost won the battle of life at the outset." Resolving to see our work on the bright side, have we not gained the victory over it? That person is to be indeed pitied who goes through this beautiful world murmuring, fretting, and complaining of his lot in life. Man is out of harmony with the universe unless he is happy. There is a tireless glee in the motion and life of all on which we look. There is music everywhere—music in the school-room, music in the hall; music by our fire-side bright, and music for us all.—*American Teacher.*

## Special Papers.

### AN INVESTMENT THAT PAYS.

AT the Teachers' Association meeting held at Truro in July last, Principal Brown, of Bridgetown, read an excellent and thoroughly practical paper on "An Investment that Pays." His object was not to create a sensation among the teachers, neither was it to excite curiosity, but to give a few practical suggestions in relation to some particular duties, which are too frequently either overlooked or ignored.

"Now you very properly ask," he said, "What is the investment, and what security have we for its payment? It is not a business speculation, attended with great loss of time, money, energy, like the great South Sea bubble. I simply ask the investment of a little time devoted to the formation of good manners and conduct on the part of those committed to your care. These qualities should be component parts of the teacher's character if success is to accrue from his labours in this direction. Practice and not theory is required. Example before precept is the law here. The age of civilization demands an interest in the refining influences, or such training that will make the lad or lass a thorough gentleman or lady, and an ornament to society. Many teachers seem to neglect this duty, and are quite indifferent even in their own associations and habits. Sometimes this is seen when the teacher begins to form acquaintance with those with whom he is about to associate day by day. Not unfrequently do teachers at this critical period create impressions that will pave the way for complete success and genuine comfort in his work, and on the other hand quite the opposite occurs, blighting his future prospects and defeating the great object for which his services were secured, and his moral influence largely discounted. We do not wish the teacher to become a morose, unsocial being, yet he should be careful to discriminate and to know where his sociability should find a resting place. The play ground is a very important place for him to make this investment. It is here where perhaps the lowest specimen of humanity may be encouraged to aspire after the good, pure and noble in words and deeds. The school-room may be approached in two ways. 1. By a phlegmatic sort of a way, cold and indifferent, hearing and seeing nothing; this is a very profitless way. If teachers would have the respect of their pupils, they must first show respect for their pupils. By a kind manner and friendly feelings toward their pupils, teachers will soon insinuate themselves into the sympathies of their pupils. Children can soon measure a teacher, and measure correctly. If they see an interest manifested

in their welfare, they soon have confidence in their teacher, and to him is opened a broad field of usefulness. True, the teacher needs discernment, also skill; to make the most out of this field. Indifference on the part of a teacher may soon create for himself a state of affairs or a condition of things which he cannot overcome. It is a mistake to defer the establishment of order and discipline. This should be done at the beginning.

"Discipline should be strict but not severe. This suits the child the best; allowing children to have their own way is a mistake. Much attention should be given to the position and habits of pupils during recitations, for it is here that much mischief is done. The grand object of teaching should be to prepare children for the performance of their various duties of life in the best possible manner.

"Summing up, 1st, The teacher should exercise precaution in regard to deportment, so that favourable impressions be made throughout the section. 2nd, Recognition of pupils on the street, so that they may respond. This is a very important point, as children are sensitive and quick to notice either a slight or a recognition. 'I don't like my teacher,' said a boy. 'Why, Johnnie?' 'Because he never speaks to a feller when he meets him.' 3rd, A 'good morning' salutation on the play-ground or in the school-room pays excellently well, for it opens the way for further mutual confidence between the pupil and teacher. 4th, Attention to position in classes, character and style of recitations, etc., since these tend to cultivate graceful movements, and dignified language, influencing the social circles, morally, mentally and physically, which influence will be felt throughout the whole school section."

### HIGHER EDUCATION AND THE HEALTH OF WOMEN.

AT the fifty-fourth annual meeting of the British Medical Association—an association which was established for the promotion of medical and the allied sciences, and the maintenance of the honour and interests of the medical profession, the President, Dr. Withers-Moore, F.R.C.P., senior physician to the Sussex County Hospital, Brighton, delivered the opening address. He said: "This, then, is our question. Is it for the good of the human race, considered as progressive, that women should be trained and admitted to compete with men in the ways and walks of life, from which heretofore (as unsuited to their sex) they have been excluded by feeling and usage, and largely, indeed, by actual legislation? Will it be well that we should have female doctors and divines, lawyers, mathematicians, and astronomers, professors, publicists, and Ministers of State? Might not one add female

generals and commanders of armies? For Amazonian ambitions are still alive; witness the Dowager Maharavee of Baroda's recent offer to the Viceroy of India of a corps of women warriors to aid him in solving the Afghan frontier difficulty. Will it be well, then, that our women should be equipped and encouraged to enter into the battle of life, shoulder to shoulder and on equal terms with men? Do the 'rights of women,' does 'justice to women,' demand it? Do the 'duties of women' (due to the whole human race, and to their own sex and selves as a part of that whole) admit it? The whole chivalrous ideal, certainly, was a very different one. It was that sweat of the brow and sweat of the brain should be mainly masculine—that man should go forth to adventure and achievement, 'to his work and to his labour until the evening,' while woman should wait at home and welcome him back again, and lend her ear to his tale of doing or of suffering, and reward him with her gentle sympathy and loving appreciation.

'She loved me for the dangers I had passed;  
And I loved her that she did pity them.'

To the men of 'the old time before us' those words of Othello's seemed merely natural. Their thought was, not that woman should have her fair chance with man in the battle of life, but that she should be shielded and sheltered from that rude battle, if possible, altogether; that man should fight it for her. But if we are to 'change all that,' then those who enter into the conflict where cuffs are going—man or woman—must be content to be cuffed and cuff back again; and the age of chivalry and chivalrous courtesy (so far as woman is concerned), with all which that courtesy did to make life noble and beautiful, must indeed be held finally to have passed away." Dr. Withers-Moore next laid before his hearers his reasons for replying in the negative to the question proposed. "I think it is not for the good of the human race," he said, "considered as progressive, that women should be freed from the restraints which law and custom have imposed upon them, and should receive an education intended to prepare them for the exercise of brain power in competition with men. And I think this because I am persuaded that neither the preliminary training for such competitive work, nor the subsequent practice of it in the actual strife and struggle for existence, can fail to have upon women the effect of more or less (and rather more than less) indisposing them towards and incapacitating them for their own proper function—for performing the part, I mean—which (as the issue of the original differentiation of the sexes) nature has assigned to them in the maintenance and progressive improvement of the human race. This 'higher education' will hinder those who would have been the best mothers from



being mothers at all, or, if it does not hinder them more or less it will spoil them. And no training will enable themselves to do what their sons might have done. Bacon's mother (intellectual as she was) could not have produced the 'Novum Organum,' but she—perhaps she alone—could and did produce Bacon." Dr. Withers-Moore next proceeded to set forth facts and to cite authorities in support of his arguments. "A man's fate," said an Oxford tutor, looking back upon his college experience, "a man's fate all depends on the nursing—on the mother, not on the father. The father has commonly little to do with the boy until the bent is given and the foundation of character laid. All depends on the mother." Galton, in his "Hereditary Genius," after citing, as examples of remarkable women, the mothers of Bacon, Buffon, Condorcet, Cuvier, D'Alembert, Gregory, Watts, and others, adds:—"It appears, therefore, to be very important to success in science that a man should have an able mother. . . . Of two men of equal abilities, the one who has a truth-loving mother would be more likely to follow the career of science." Again, who, in Lewes's "Life of Goethe," can read the poet's early history, with its absorbingly interesting account of the training he received from his mother, without feeling how much the marvellous material owed to its marvellous manipulation; how what the son grew into was very largely what his mother made him into, or, at lowest, prepared and fitted—in fact, enabled—him to grow into? What if Goethe's mother had never married? Would he have written *Faust*?

(To be continued.)

#### GRAMMAR.

GRAMMAR is a study which runs through all our work, and cannot be restricted to the formal class. A good way of watching pupils is to set them to watch each other. I told my pupils of a teacher who made a leather medal, and bestowed it upon the first one making a grammatical error, this one to place it on any one he detected in fault. They desired me to make one, and, after some solicitation, I consented. It was very interesting to see the earnestness displayed, and I find that Mason's Grammar has been consulted to find the use of *shall* and *will*, *should* and *would*, *the first two*, or *the two first*; and *the objective case of pronouns*, and the verb *to be*, are receiving unwonted attention. The teacher found also that it was impossible, with those bright eyes watching, to be like the famous Pecksniff, "like a direction post, pointing out the road to virtue, but never going there himself," for the first thing was: "If you please, is it correct to say, 'Let each pupil take their slate,' you said it just now?" And *few* and *measured* were their words while I bore the medal.—*The Teachers' Aid*.

## Educational Opinion.

### EMULATION.

EMULATION in a variety of ways takes largely the place of the rod of forty years ago. The physiologist who looks at the matter will find that the change is not for the better, in so far as the health of the child is concerned. The whip does its work quickly and is over, the child going about his tasks or play. But the goad of emulation never ends. Its influence upon the older girls is especially powerful. By it all sanitary precautions are swept away. Vehement excitement, with alternate elevation and depression of spirits in rapid succession are incessantly harassing the brain and nerves. This does not end with the school hours, but often extends through the play hours, and not unfrequently through sleep. The grading of the pupil is also a perpetual source of worry. Shall I pass or shall I be set back in grade? Such is the question children are led to ask, rather than some intelligent query respecting the subjects of study. It is this grading stimulus that is the motor power of both the average teacher and scholar. The hope to get into the next grade, and the fear that he may fail, keeps the pupil in a state of worry. A boy finds himself literally a part of a great machine. If he can work as does the machine he is all right, but if he cannot he is crushed. Failure to keep up with the machine implies disgrace, loss of self-respect and confidence, grieved or angry parents, the jeers of school-fellows, etc. Often sickness compels him to desist, so that days and weeks are lost, and finally the grade is lost. Besides, he often feels that his rights have been outraged, that he is a better scholar than one who has walked by him. *American Lancet*.

### THE MEANING OF "EDUCATION."

HITHERTO, for the most part, education has been regarded either as a sort of craft or as a branch of religion and therefore an affair of the Church. But of late men have come to see that education is a science. Dr. Donaldson, Rector of the High School at Edinburgh, was one of the first to impress this view upon the public. His theory was something like this: "the term 'education' is used in two senses, a general sense and a more restricted sense. In the wider sense the term is applied to the drawing out of the powers of man, whatever be the agents which produce this effect. In this sense, external nature, the experiences of life, friends and enemies, in short, all that affects a man, are educating him. And a science of this kind of education would be an exhibition of the laws which regulate the development of his

physical and mental powers. In the more restricted sense of the term, education is the conscious effort of human beings to draw out the nature of other human beings to the utmost perfection. Education, being a conscious effort to effect a purpose, and implying the application of means to an end, is therefore an art. When, therefore, we speak of a science of education, we do not mean to assert that education is itself a science, but that it is based on a science; that a set of laws which it is the business of a science to discover can be used in the work of education." In short, Dr. Donaldson contended that education, like medicine, is based on certain great principles, that a knowledge of these principles can be imparted, and that education, therefore, can and ought to be taught as a science. The importance of education to the State and to the individual has long been recognized. Locke did not exaggerate when he said in his treatise on the subject that "of all the men we meet with, nine parts of ten are what they are, good or evil, useful or not, by their education. It is education," he added, "which makes the great difference in manhood. The little or almost insensible impressions on our tender infancies have very important and lasting consequences; and there 'tis, as in the fountains of some rivers, where a gentle application of the hand turns the flexible waters into channels that make them take quite contrary courses; and by this little direction given them at first in the source, they receive different tendencies, and arrive at last at very remote and distant places."—*Mail*.

### THE EVIL OF LARGE CLASSES.

THE teacher who will succeed must not fall into the error of dealing with his school as if it were simply an aggregation of little people each like the other, and all of whom may be taught and developed in the same general manner. A school is a community of individuals, no two of whom are alike and no two of whom can be most successfully taught, governed or developed in exactly the same way. The true teacher does not teach in a general way for all of her pupils, but she teaches in a special way for each of them. Of course there are limitations to this. A teacher's circumstances or surroundings may be such that she cannot individualize as she should. While in such a case it is not her fault, nevertheless the fact stands that her success will be diminished just to that extent, and the best results will not come from her work. Herein lies the evil in large classes and large schools. No school should have a number of classes so great that the teacher will not have sufficient time to devote to each class, nor should any class be so large that the teacher is prevented from teaching the members of it as individuals, and compelled to lecture to them as a body.—*West Virginia School Journal*.

**THE DULL vs. THE SMART BOY.**

AT Chautauqua we again heard the oft-repeated fallacy, "it is the dull pupil who needs attention: The smart boy will take care of himself." This reminded me of a little story. An old farmer hired a lubberly boy (because he was cheap) to hoe corn, and instructed him to "thin out" to four stalks all hills containing more than that number. The boy went to his task. Toward noon the farmer visited the field to note progress, and arrived in time to witness the "thinning out" process. The cheap boy had invariably pulled out the largest and most vigorous stalks when "thinning" was necessary. When indignantly asked to state why he did so absurd a thing, he replied that it was to give the little ones a chance.

If any human mind needs careful watching and pains-taking training, it is the active, keen, alert, rapidly-developing mind of the "smart" boy. Let him "take care of himself," and when it is too late it may be discovered that, from want of proper guidance, his "smartness" is a curse to himself and to the world. The smart pupil is morally and legally entitled to his just proportion of a teacher's time and attention, and ought to have it, and no more. He should not be sacrificed to the supposed needs of the dull pupil. Give the smart boy a chance.—*Ohio Educational Monthly.*

**A TASTE FOR GOOD READING.**

To combat trifling, frivolous reading, to be constantly a vigilant guard against light profitless reading, are duties too clearly known to even need discussion. The extreme carelessness and wilful ignorance in these matters are appalling, and the wasteful extravagance of precious time should receive our greatest condemnation. Teachers can do much in crushing these growing evils that follow in the wake of the wide-spread cheap publications, and in the growth of the abnormal taste of the young to devour books indiscriminately. The pernicious effects of novel-reading, and that of the trashy weekly papers, call the more loudly upon us as conscientious teachers, as moral instructors, to teach the child to select for himself such reading as will prove of everlasting good, instead of everlasting evil.

This part of a child's education is usually very much neglected at home. The taste for reading good books, and the reading habit, must be developed, just as a child is taught good manners by a constant repetition of that which is pleasing. Too many parents pay no attention whatever to the boy's reading, while they clothe and feed his body with great care. We may not expect, in general, that a child will learn the selection and use of books at home. The average young lady, who perhaps is a graduate of some school, is so much occupied with

society and the numerous crazes of the day, that she deems good books of minor importance. The average young gentleman is even less inclined than she to read systematically and with a purpose.—*Indiana School Journal.*

**EDUCATING THE DISPOSITION.**

THE teacher is so often limited in his work by the exactions of the written examination that he has little time, and less energy to give to any department of school work other than crowding the mind with facts as preparatory for the question-answering test. There is fully as much profit in training and developing the child's disposition as in teaching half the facts and processes required of the school; and it is as good mental discipline to conquer a cantankerous disposition as to conquer the cantankerous name of an Asiatic mountain. We advocate the systematic education of the disposition in school as a means of doing the children much permanent, personal good; as a means of making a definite return to the tax-paying community in the matter of character, loyalty, and industry; and, as a means of intellectual development. Beyond this we recommend it as an aid in school discipline. We illustrate our thought by reference to the sentiment of jealousy, one of the serious mischief-makers of the school as well as of society in after life. It is common to all people, though of different degrees of intensity in different individuals. It does not indicate high sensibility as is so often falsely claimed, and does not indicate strength in any direction, although men and women of strong personality have this weakness. A person of calm and equable temperament may become its temporary slave. Sometimes it smoulders and destroys the peace and happiness unvoiced, and again it springs into fury, like a fire that has been burning in seclusion, drying the material ready to flame up in uncontrollable passion at an unsuspected moment. It is not uncommon for a child of fifteen months to manifest jealousy as regards the attentions of mother or nurse. Jealousy is largely the result of proprietary and imitative tendencies. They want to handle, or possess, whatever they see others have; they want to do whatever they see others do. The worst phase is when self love and vanity get mixed up with it. The teacher who can so direct the children under his care as to reduce the vicious tendencies of jealousy to the minimum will make discipline easy; will give better mental training; will fit for better home-life, society, commercial and political life. What is true of this sentiment is true also of envy and all other annoying manifestations and innate vices of disposition. The successful teacher appreciates his privileges and responsibilities, and finds ways of his own to rectify the wrong and intensify the right.—*New England Journal of Education.*

**Mathematics.****MATHEMATICAL TRICKS.**

THE digit 7 will divide numbers of two or three figures if their *left* hand figure or figures are double the *right* hand figure, as in 21, 42, 63, 84, 105, 126, 147, etc. Or if the *right* hand figure be  $\frac{1}{2}$  of the left hand figure or figures, as in 91, 182, 273, 364, etc.; so 7 is also a divisor of numbers of three or four figures in which the *left* hand figure or figures are  $\frac{1}{2}$  of the *right* hand, as in 315, 735, 945, 1155, 1785, etc. Or if the two right hand figures make  $\frac{1}{3}$  of the left hand figure or figures, as in 301, 903, 1204, 4515, etc. Or if two similar figures enclose ciphers, as 1001, 2002, 4004, 8008, etc. Or if two in numbers of five figures, a cipher stands between the first two and the last two figures, as in 10010, 11011, 12012, 16016, etc.

I will proceed to speak of the property of 19—and of all others ending in the digit 9, as 29, 39, 49, etc., etc. What will be stated is true of *all* numbers ending in 9, but the explanation will be limited (for convenience) to those that occur under 100, as 19, 29, 39, 49, etc., up to 99. Now first dividing all the numbers between 1 and 100 into groups of ten each, there will be *ten* such groups, as 1 to 10.—11 to 20.—21 to 30, and so on. Now suppose you desire to know whether a certain number be divisible by, say 19, as for instance, 38. Now 19 is in the *second* group. So multiply the 8 of the number 38 by 2 (which represents that 19 is in the *second* group), and you get 8 by 2, which equals 16, to which add the 3, the first figure of 38, and your result is 19; and so 38 is divisible by 19. Do the same with the number 152; 2 multiplied by 2 gives 4, to which add 15 and your result is 19, and so 152 is divisible by 19. Do the same with the number 456; 6 multiplied by 2 (for *second* group) gives 12, to which add 45, and your result is 57, wherein the 19 does not appear. Try the experiment on this 57; 7 multiplied by 2 equals 14, and 14 plus 5 gives the 19. On larger numbers this may have to be done several times, but if the numbers given be divisible by 19, this same 19 will be sure to crop out eventually. Try 45,638; 8 multiplied by 2 gives 16, add 4,563 and you will have 4,579, multiply 9 by 2 and you will have 18, add the 457, and you have 475, but yet no 19. Try again: Multiply the 5 by 2 and you have 10, add the 47 and you have 57, then multiply this 7 by 2 and you have 14, to which add the 5, and 19 is the result, and 45,638 is divisible by 19.

The same holds true for all numbers ending in 9, and above these ten groups of 100. As of 109 in the 11th group, of 119 in the 12th group, and so on and on. Let one or two examples suffice. Is 119 itself divisible by 119? Yes, for 119 being in the 12th group, multiply the 9 of 119 by 12 and you have 108, to which add the 11 and you have 119. Is 14,161 divisible by 119? Yes, for multiplying the 1 of 14,161 by 12—for group of 119, and you have 12, add the 1416 to 12, and you have 1428; multiply this 8 by 12 and you have 96, to which add 142 and you have 238, but yet no 119. Try again,—multiply this 8 by 12 and you have 96, to which add the 23, and you have the 119; then 14,161 is divisible by 119.—*Salem Gazette.*



TORONTO:

THURSDAY, SEPTEMBER 30, 1886.

*PRACTICAL EDUCATION.*

ONE of the strongest arguments on behalf of a purely business education was adduced the other day at the annual meeting of the Canadian Shorthand Society, held on the 22nd of September at Hamilton, Ontario. Mr. G. W. Johnson, head master of the Central School, in the course of an essay entitled "Short-hand in a Business Course," said that "apart from its commercial value in business, he considered it a much better mental discipline than classics or mathematics, and predicted that within twenty years an authorized system of shorthand would be made a compulsory every day study in the public schools, because of its great utility both in business and as a mental drill."

The phrase "mental drill" is, we think, the last that can be applied to short-hand writing. The object of all *drill* (for the phrase is borrowed from the army) is to develop a *variety* of powers and the ability to pass rapidly from one to the other. To expect short-hand writing to suffice for a thorough "mental drill," would be analogous to expecting a well-drilled regiment to result from the continual exercise of a single movement.

It is needless, however, to dwell upon this minor point of Mr. Johnson's argument; it forms only a part of the general opinion that what is called a "practical education" contains in itself all that is necessary to train the mind. We have ere this contended to the contrary, but it is a subject upon which it would be difficult to say too much. For, if the opinion is a correct one, our present system of education must necessarily be a bad one; for all who are being educated by the present system will shortly be called upon to put what they have learned and gained to "practical" use.

The adjective "practical" need never be affixed to the word "education." All education is practical—is for practical purposes; and to characterize any one system of education as practical, with the concealed idea that all other species are useless, is folly. The utmost that can be said of one system as opposed to another is that it will gain its end sooner or better than that other. The important question to be asked about any system of education

is: How does it compare with others in its power of developing the mind?

But the prevalent opinion as regards what is termed a "practical education" is that if boys at school are early taught such things as short-hand, book-keeping, banking, and such other subjects as are used in "business," they will make better clerks or accountants than if they devoted their time to Latin, Greek, History, Geography, English Literature, etc., etc.

This oft-repeated assertion we traverse without qualification. The study of short-hand, book-keeping, banking, etc., should bear the same relation to the study of Latin, Greek, History, Geography, etc., as these bear to the study of the three R's. We advance by steps. The rudiments must first be learned. It would be as foolish to undertake the study of Medicine or Surgery without first learning Chemistry, Physiology, and Anatomy, as it would be to take up banking before learning the many subjects which are included in banking. The subaltern, when he first gets his commission, does not enter upon the study of strategy and fortification; he learns the "goose-step" and the "Manual Exercise."

Secondly, as to the mental training which a "practical education" supplies. It is impossible to obtain the requisite exercise of the powers of the mind unless those powers are *gradually exercised*—exercised step by step, by overcoming obstacles in turn, grasping first this fact, then the fact next to it—the fact which is linked to it. Any other system results in superficiality; is an attempt to build a superstructure with no foundation. And it is this which a "practical education" attempts to do. It leaves outside its sphere the groundwork of true education, and endeavours to teach only such things as are of "practical value"; forgetting meanwhile that to be able to make these things of "practical value," it is necessary to have studied the rudiments upon which these things are founded.

It would be as wise, we think, to urge that those who intend to enter the legal profession should substitute for the ordinary school *curriculum* such subjects as Common Law, Real Property, Contracts, etc.; or that those who are about to make Medicine their vocation should substitute, let us say, *Materia Medica*, or *Pathological Histology*, or that those intending to enter holy orders should substitute *Homiletics*, or *Exegesis*, or *Apologetics*.

*SCAPEGRADES.*

EVERY school—perhaps every class has its "bad boys," its scapegraces. They are the torment of the master or the mistress. They require so much attention on the part of the teacher that the whole class is kept back. A misunderstanding (to use a mild term) between teacher and "bad boy" is always the signal for the rest of the class to prick up its ears. It affords *them* infinite amusement, as well as being a delightful episode to break the tedious monotony of a dry lesson. These conflicts are looked forward to. Not seldom they are purposely brought on. But they are the bane of the master. Through the "bad boy" order is not preserved; dignity often suffers (N.B., by the fault of the teacher usually); time is lost; often temper is lost (N.B., again by the fault of the teacher *always*); and the whole class thoroughly upset—attention diverted, quiet at an end, the routine (a most important ingredient of order and progress) disturbed.—The baleful influence of the scapegrace is too well known to need a further elaboration.

How is this baleful influence to be counteracted? Thus:—

*First*, never let a boy obtain a character for badness. He will keep it with pleasure, and will take for his motto probably, "I may as well be killed for a sheep as a lamb."

*Second*, show him constantly you expect great things of him. These expectations will very often be fulfilled; the scapegraces generally turn out splendid men.

*Third*, believe he is reclaimable. If properly treated he undoubtedly is.

*Fourth*, see that you treat him properly. He needs a firm treatment. Be sure however, that your firmness is never the result of either fear or spite—either of these will ruin your influence over him. Rather be lenient to a degree than afraid or spiteful.

*OUR EXCHANGES.*

*Littell's Living Age*. The numbers of *The Living Age* for September 18th and 25th contain, "The Voice of Memnon," *Edinburgh*; "The Flight to Varennes," and "The Growth of the English Novel," *Quarterly*; "Moss from a Rolling Stone," *Blackwood*; "A Drive Through the Blue Wicklow Mountains," *Tinsley's*; "Some Unconscious Confessions of De Quincey," *Gentleman's*; "Orchards," *Spectator*; "The Baku and the Egyptian Petroleum Industry," *Economist*, with instalments of "The Mesmerist," by the late Ivan Turgeneff, "Prince Coresco's Duel," and "Ballairai Durg," and poetry.

## REVIEWS AND NOTICES OF BOOKS.

D. APPLETON & CO. have ready in the *International Scientific* series a volume on "Microbes, Ferments and Moulds," by E. L. Trouessart.

UNDER the auspices of the Royal Commission an illustrated work will shortly be published on the Colonial and Indian Exhibition, which is intended to form a record of some of the leading features of the different sections of the Exhibition.

PROF. WM. H. PAYNE, of the University of Michigan, has written a work entitled "Contributions to the Science of Education," which will be published immediately by Harper & Bros. and (in Great Britain) by Blackie & Son, of Glasgow. The next issue in the new Classical Series which Harper & Bros. are issuing, under the supervision of Prof. Drisler, of Columbia, will be the last nine books of the *Iliad*, edited by Professor Tyler, of Amherst.

THE leading feature of *The Century* for 1886-7 will be, we are told, "The Authorized Life of Lincoln," by his confidential secretaries, John George Nicolay (now Marshal of the Supreme Court of the United States) and Col. John Hay (lately Assistant Secretary of State of the United States.) This work, which was begun with the sanction and assistance of President Lincoln himself, and has been continued under the authority of the sole survivor of the President's immediate family, has been in active preparation during the past sixteen years.

AN interesting addition to the literature, for the distribution of which the Colonial Exhibition offers such special facilities, consists of a neatly got up pamphlet containing the speeches delivered by the Marquis of Lansdowne at Winnipeg and Victoria during his recent trip to the North-West. Lord Lansdowne's reputation as an effective and weighty speaker whose opinions are entitled to the utmost consideration should obtain for this little *brochure* a wide circulation and a very careful perusal. The speeches are supplemented by one or two brief extracts from the Marquis of Lorne's and Lord Dufferin's addresses as well as by an epitome of facts concerning the Canadian Pacific Railway and the recent progress of the Dominion.

HENRY NOKMAN cables to *The Evening Post*: "Mr. A. V. Dicey, Professor of Law at Oxford, has written a work called "The English Case Against Home Rule," which will be published by Murray immediately. Sir James Ramsay has nearly completed a great work on the History of England, from Caesar's invasion to the accession of the House of Tudor. Sir Frederick Pollock, translator of the "Divina Commedia," contemplates writing his recollections. He has just retired from the post of Queen's Remembrancer, also from that of Master of the Supreme Court Judicature. Mr. Harry Quilter is writing a history of the pre-Raphaelite movement, which will comprise the series by Holman Hunt, recently published in *The Contemporary Review*. The article on Shakespeare in the new "Encyclopædia Britannica" will be by Professor Thomas Spencer Beynes (the editor), an authority on the subject."

HARPER & BROS. have published this week the long-expected volume on "Mary and Martha, the Mother and the Wife of George Washington," by Benson J. Lossing. It is a delightful collection of personal memorials of those nearest to Washing-

ton, gathered from contemporaneous letters and memoranda, from journals and minutes of conversation, from the recollections of those who were relatives and connections or friends of the family, from publications of the time, and from trustworthy tradition. A complete and accurate sketch of the lives of the mother and wife of Washington, it also reveals more fully than it has ever been revealed before the social and private life of Washington himself. Other books just ready are: "Contributions to the Science of Education," by Prof. Wm. H. Payne, a timely book, bearing on active controversies of to-day and casting new light upon them; Homer's *Iliad*, books xvi. xiv., with notes by Prof. W. S. Tyler, which forms a new volume in their *New Classical Series*; "Voyages of a Merchant Navigator of the Days that are Past," compiled from the journals of the late Richard J. Cleveland by H. W. S. Cleveland; and "Into Unknown Seas, or, the Cruise of Two Sailor Boys," a new volume in the *Harpers' Young People's Series*, by David Ker.

MACMILLAN & CO.'s Announcements for the Fall Publishing Season include the "Letters and Reminiscences of Thomas Carlyle," edited by Prof. Charles Eliot Norton, of Harvard University; a new volume of "Historical Lectures," by Prof. Edward A. Freeman, reviewing the "Chief Periods of European History;" and a new and cheaper edition, in four volumes, 12mo., of the late M. Lanfrey's great "History of Napoleon I." Among their illustrated works may be mentioned an important book on "Greenland," by Baron Von Nordenskiöld; "Days with Sir Roger De Coverley," with characteristic illustrations by Hugh Thomson; and an Edition de Luxe printed on fine paper, in one volume, of Washington Irving's "Old Christmas," and "Bracebridge Hall," the illustrations of which were a labour of love of the late Randolph Caldecott. To their list of novels they will add Mr. Henry James' new story "Casamassima," "Sir Percival," by J. Henry Short-house, author of "John Inglesant;" and a new story by Charlotte M. Yonge, entitled, "A Modern Telemachus." For younger readers, they will have a new volume entitled, "Four Winds Farm," from the pen of that most delightful of writers for young people, Mrs. Molesworth, to which Mr. Walter Crane will as usual furnish the illustrations.

THE second edition of the official catalogue of the Canadian Section of the Colonial Exhibition has just been issued from the press, and is well entitled to a word of favourable recognition. It has been carefully revised and its contents amplified, so that in all it now comprises some 412 pages. Among new features which have been introduced with advantage may be mentioned a list of contents, a list of classes with summary of exhibits therein, and the addition of particulars by which the position of exhibits in the various portions of the Canadian Courts can be readily discovered. To the tersely written introduction, in which an account is given of the general features and resources of the Dominion, the following interesting figures have been added: "In the Exhibition of 1851, British North America occupied about 3,886 square feet of space. At the Paris Universal Exhibition of 1855, the British North American Provinces occupied 3,153 square feet of space. British North America was represented in

the Exhibition of 1862 by 328 exhibitors, the space occupied by them being not quite 5,000 square feet. In the Paris Universal Exhibition of 1867, Canada was represented by 610 exhibitors. On the occasion of the Philadelphia Centennial Exhibition of 1876, Canada received nearly 50,000 square feet of space, and her exhibitors numbered 1,056. At the Paris Universal Exhibition of 1878, the Dominion had 524 exhibitors. Canada was represented at the Antwerp Exhibition of 1885 by about 172 exhibitors, and had about 10,000 square feet of space. At the present Exhibition the Dominion has more than 1,700 exhibitors, and occupies nearly 100,000 square feet of space." No further comment upon these statistics is called for beyond the remark by which they are introduced that "the display made by Canada at the present Exhibition shows the extraordinary progress achieved by the Dominion of late years."

"JUST outside of London they are at work on the biggest book in the world," said a New York publisher who has recently returned from a trip to England. "It will be more than four times as large as Webster's Dictionary, and will contain something like 5000 pages. It is to be the ideal dictionary of the English language, and will supersede all pre-existing authorities. It has long been realized by scholars that the English language is deficient in this respect. The French have two dictionaries, that of M. Littré and of the Academy, that are far superior to our own. The *Wörterbuch* of the German brothers Grimm is still more exhaustive and authoritative. Even the Portuguese dictionary, Vieira, decidedly surpasses anything in English. But the British Philological Society proposes to fill this yawning gap in our reference books. They hold that a dictionary should be an inventory of the language, and that its doors should be opened to all words, good, bad and indifferent. This new work will not be confined to definitions and cross-references. The life history of each word will be fully given, with a quotation from some standard writer, showing its shades of meaning and the variations in its usage from one generation to another. The work was originally started in 1869, but the death of editors, financial embarrassments, and changes in the press have interrupted its progress. It is now hoped that the book may be pushed to its completion without unnecessary delay. The amount of research and reading yet to be accomplished is very great, and there are on hand some 3,000,000 or 4,000,000 slips which require patient classification. The next century will probably open before the dictionary can be placed in complete form upon the library shelves. But the advance sheets devoted to the first letters of the alphabet, which have already been issued, have met with the most favourable comment from scholars, and give promise that the English language is to have, at least, a lexicography worthy of its literature."

## BOOKS RECEIVED.

Catalogue of books published by D. C. Heath & Co. Also Announcement of the Books in Preparation.

Catalogue of Books published by Macmillan & Co. Including (except Bibles) the publications of the Universities of Oxford and Cambridge. New York: Macmillan & Co. 1886.

## Methods and Illustrations

### ROTE WORK AND CORRECT TRAINING

IN HABITS OF ATTENTION AND PROMPTNESS.

WEBSTER says that *rote* signifies "a frequent repetition of forms of speech without reference to the meaning." I would amplify this definition sufficiently to have it include all of that work in our schools that is done by a whispered repetition, called *study*, and considered *preparation of lessons*, and finally culminates in an *audible repetition*, at recitation time, of the *sounds* that have been memorized.

Without wishing to take a pessimistic view of the situation, or to enroll myself with the numerous and unreasonable critics of the public schools, I still wish to say that there is far too much of *rote* work done in even the best of our schools.

I would class as *rote* work, also, that rehearsing of sounds in which the pupil associates certain sounds with certain printed or written characters, and, ignorant of the fact that those characters are symbols of ideas, vainly supposes that the aforementioned rehearsal of sounds is reading; or, in plain Anglo-Saxon, I would call much of the reading that is done in the primary and grammar grades *rote* work. In geography, that pupil who fails in recitation because he is thrown off the track by forgetting two or three words of the text is doing *rote* work; in arithmetic, those pupils who explain problem after problem according to a model explanation given by the book or their teacher are doing *rote* work—not quite so objectionable or to so great an extent, perhaps, as has been done in the geography or reading, but still it is *rote* work, and more originality in the form of explanation, although not likely to make so fine a showing before visitors and at examination time, would be of more value in developing the reasoning powers of the members of the class. It would not be at all difficult to find *rote* work in the other branches of the common-school course; but the three already mentioned—reading, geography and arithmetic—furnish sufficient material.

Now, is there any educational value or power in this *rote* work? If there is, how much is there? It may be claimed that it strengthens the memory. If you believe that it does, ask the pupil who reads *sounds* and *not ideas* to re-read the paragraph that he read a week ago, and see if he remembers anything connected with it well enough to read it better now than he did then. Ask the girl who glibly explained a problem according to the prescribed model last week, but has not used that model since, to explain a new problem, or even one in review, that may be fitted to the given model, and

see if it is done as readily as it was then. If these two experiments are satisfactory, I ask you, as my last resort, to call out the class in geography and test those who usually employ the words of the text-books in their recitations, and see how well they will render a lesson that they have not looked at for a week. Permit me to remark here, parenthetically, that I am not inveighing against memorizing in *all cases*—against memorizing verbatim—but against *repeating forms of speech without reference to their meaning*.

Let us now consider correct training in habits of attention and promptness. To train, according to Webster, is, "To teach and form by practice; to exercise; to discipline." Col. Parker says, "Primary education consists in the development of the power of attention." Attention may be defined as an intense consciousness by which every impression made on an organ of sense is brought directly before the mind. Upon this ability to give attention depends the power to remember; hence, attention is the foundation upon which the whole superstructure of school education must rest. No attention, no impression upon the mind; no remembrance or recollection, no knowledge. A late writer on psychology has said that it is probable that all impressions on the mind are indelible, and may be recalled either by force of will or by association of ideas. If this theory be true, many school-children have either very weak wills or most unsocial ideas; for we all know that it is simply impossible, in many cases, to induce a recollection of impressions that we have striven zealously to make permanent.

As illustrations of inattention let me refer you to the members of the spelling class, who must have words pronounced several times before they can write them; or to the pupils who copy work from the board, and omit words or introduce original and wonderful spelling; or to those other pupils who so frequently misunderstand the teacher's commands, and sit down when they should remain standing, or remain standing when they are told to sit; or, lastly, to the teacher's pests who "forgot" to bring a book, a pencil, some paper for examination, or to study the lesson assigned. These pupils are usually called "dumb"; but in many cases the only trouble lies in the fact that they do not give their undivided attention to what the teacher tells them.

How shall this trouble be remedied? This question is as difficult to answer as it is easy to ask. Attention certainly is not secured by commanding it or by begging for it. The anecdote of the judge who astonished his court-crier by telling him that he, with his continual "Silence! silence!" was the noisiest man in the court, is applicable here. The teacher who frequently calls "Attention! attention!" often produces more disturbance

and does more to destroy attention than any other person in the school. I might say to the teachers, Be interesting and you will secure attention; but then the question would be, How shall we be interesting? You can't make the work interesting to others if you are not interested in it. If you are teaching because you think that you can get more dollars for less work in that way than in any other, there is little hope of your ever making the work interesting to your pupils. Do not consider me as saying that only those who are willing to teach for nothing should be put in charge of children. I mean to say that, if your heart and conscience are not in your work, you ought not to be in the school-room. Teaching, not school-keeping, is hard work; I suspect the sincerity of the man who tells me that he would do the work for mere love of it; and despise the motives of that other one who, having obtained a situation, gives the least possible amount of labour for the stipulated salary. Get as big a salary as you can, and always do the best work that you can.

In my belief, enthusiasm is the great requisite for gaining and holding attention, but it must be tempered with common sense. Next to this in importance is the ability to question well. By his skill in questioning Socrates laid the foundation of a fame that endured for twenty-three centuries. Thorough knowledge of the subject in hand is, certainly, another essential requisite. Armed with these three—knowledge of the subject, skill in questioning, and enthusiasm—no teacher should fail.

Let us now consider, briefly, training in habits of promptness. Frequently pupils are found whose normal mental gait seems to be identical with that of "molasses in winter." If directed to copy a paragraph of the reading lesson on their slates, the first lines written are nearly erased by the time the work is finished; if called upon to write a set of numbers from dictation, the rest of the class must wait for them, or they may be excused with about half of the numbers written; if detected in some disorder and told to approach the desk, they move at a snail's pace. Some of this exasperating slowness of mind and movement may be due to temperament. But the fact that some of the slow-coaches of the school-room are among the liveliest children on the playground; that the pupils of some rooms exhibit much greater promptitude than those of other rooms; and that particular pupils vary greatly in the degree of promptitude exhibited when under the charge of different teachers, furnishes good ground for saying that promptness is largely a matter of training.

Now, are we not, either consciously or unconsciously, devoting a great deal of energy to *rote* work that will be crowded from

the pupils' minds by the next succeeding task, and forgetting that a prompt and attentive boy or girl will be of more use to himself or to herself, and to the world, than one whose mind has been used as a sieve throughout a whole grammar or high-school course? I do not affirm, nor do I believe, that we are doing quite so badly as to make sieves of the children's minds; but in our eagerness to store them with facts, do we not often lose sight of real training, and look upon the attention of a class as an evidence that its members are in a favourable condition to take on board a mental load? Do we not forget that attention is not only a means to an end, but an end of itself of the very highest character?—*New England Journal of Education.*

### THE CULTIVATION OF MEMORY.

FROM a paper on "The Cultivation of Memory," by Principal A. C. Ferrin, Keeseville:

The following facts must be considered in the discussion of the cultivation of memory:

1. The habits of American life are not conducive to a proper cultivation of the memory.
2. Little aid can now be expected from the religious training of our school children.
3. The character of much of the literature read by school pupils is disastrous in its effects upon the memory.
4. Certain physical causes exist which are equally injurious.
5. New educational methods make no special provision for the training of this faculty, but rather point in the direction of disuse and misuse.

In view of these facts, what are the problems that confront us?

1. How can these outside influences be overcome?
2. What changes can be introduced into our schools to meet the deficiency?

The solution of the first problem is the more difficult because it is largely beyond the reach of the teachers. Its solution can only be indirectly attained through the solution of the second.

The answer to the second problem is also difficult, though within the reach of the teacher, but in attempting its solution a caution is necessary.

Important points have been gained in educational reform during the last few years. These points must not be relinquished. A recognition, and, in a degree, a realization of the importance of certain heretofore neglected factors in the educational problem has been secured, but, as we claim, at the expense of another equally important factor. What has been gained must be kept, but, at the same time, what has been sacrificed must be restored.

If we have learned to teach geography in a way to awaken an interest in the study, if we have learned to illuminate the dry facts of history, we have gained important points. If in teaching the languages, we have succeeded in removing somewhat the antipathy against them, by requiring a minimum of technical grammar, another point has been gained. But if these gains have been secured by a loss in other directions, the loss must be made good. The memory must not be permitted to suffer in the prosperity of the other faculties, nor indeed the other faculties in a reinstatement of the memory.

The question then is, *How* and *where* shall we provide for the necessary cultivation of the memory?

We can answer the question only by making a few suggestions.

1. A certain time might be set apart each week, or even day, for a general exercise in memory-training. In these exercises a limited time might be given for memorizing a short poem or parts of longer ones, or even certain parts of text-books could be assigned. In this plan an excellent drill would be obtained also in close application.

2. A poem or passage of the best prose literature might be assigned once a week for the pupils to commit at leisure, and a time set for their recitation, not from the platform, but from their seats, either singly or in concert, or, what might be still better, they could be required to write them from memory, and then read, every verbal mistake being corrected by the other pupils or the teacher.

3. The work could be done in classes. The English literature class would furnish an excellent opportunity. In the Latin classes, notable passages from Caesar's commentaries, parts of Cicero's orations, and passages from the *Aeneid* could be required. In history, brief sketches of historical characters could be written and then committed, or in geography brief descriptions of places could be treated in the same way.

We admit that there may be many objections to carrying out these suggestions. We have made use of them to a limited extent, but not to an extent to ensure their practicability.

### INDOLENCE.

At the St. John, N.H., Teachers' Institute Mr. McKenna read a paper on the foregoing subject from which we take the following:

As regards the word 'Indolent,' he wished it to be understood only so far as it pertained to school duties, or the preparation of home lessons, for it is generally taken in a much wider sense. The first thing to be done, the speaker said, was to try to find out the cause of such indolence, for children were not generally indolent by nature. In his opinion it would be invariably found to proceed from one or other of the following

causes: The teacher himself, the parents, or a sluggish, vacillating disposition of the pupil. Teachers gave cause for indolence to their pupils as regards home lessons in assigning a certain amount of work to be done by the pupil whilst at home, as a preparation for next day's work in school, and, through indifference or otherwise, neglected to take the necessary means to find out whether such work had been satisfactorily done or not. This Mr. McKenna assigned as one of the most fruitful causes of non-preparation of home lessons. The best and only means to deal with such indolence as this, was to ascertain by a careful, systematic examination whether the assigned or prescribed work had been prepared or not, and if not to take the necessary means to enforce its preparation. In regard to indolence in school work, the teacher, he said, often caused it by an injudicious mode of instruction or questioning; in making himself a mere talking machine; or in asking questions which required for an answer neither thought nor attention. Parents foster this indolence in their children by keeping them running errands and otherwise employed when they should be preparing their home lesson; also by a mistaken idea of kindness in writing for them excuses to the teacher upon the slightest pretext or whenever the children desired them to do so. As a remedy for this Mr. McKenna assigned home visitation by the teacher. As to that indolence which proceeded directly from the pupil's indisposition to study from whatever cause arising, the teacher, he said, should ever manifest the greatest vigilance and interest in his work, and should never fail to show, in a forcible manner, that he notices such lack of preparation or attention to study by the pupil with displeasure, and should try expedient after expedient, but always with kindness, firmness and prudence.

### THINGS TO REMEMBER.

1. LET nothing prevent you from thoroughly preparing every lesson—no matter how simple—that you are to give next day. Never go into the school-room without knowing exactly, even to details, what you are to do.

2. No matter what happens, be sure to keep your temper.

3. Don't omit to visit all the families who send children to your school. Make friendly calls, don't wait for them—and show yourself really interested in them and their children.

4. If any trouble occurs with any child, or there is danger of any, best go and see the parents and get their co-operation.

5. Don't be in a hurry about punishing, if necessary. *Waiting* to think it over never does any harm.

6. Be sure everything about your dress, desk, and school-room is always in perfect order.

7. Try to make the room attractive, so that the children will find it pleasant.

8. Remember always that it is the best interest of the *children and school*—not your own, that you are to work for.

9. Be sure that you carry out exactly all the directions you give. *Think well before giving them*: but then, carry them out.

10. You must be entirely and wholly and always *just*. If not, you will not command respect—and not to have that, means failure.

11. Be *very* careful in your dealings with other teachers in the town. Never give them occasion to think that you set yourself above them. Be always pleasant and friendly—you can learn from them. If you are working *for the schools*, there can be no jealousy—make welcome in your rooms. *Seek* to know them. You can both give and get help, if you work in the right spirit.

12. Dress *perfectly—simply*. Celluloid collars and cuffs will save washing, and can be always neat and clean. Dress should be plain, without much trimming. If it were not for washing, I would say, wear white aprons in school.

13. For arithmetic classes. Do all the examples yourself at home before the time; then you will know what you are about, and can tell where the error is. Keep ahead of your class.

14. Talk over your difficulties together.

15. Don't take any part in the village *gossip*. Don't allow yourself to talk about *any one* in the village, unless you have something good to say.

16. Try and make the children *polite* to each other in school.

17. Try the plan of having a school house-keeper for each day. Try and get the children to feel interested themselves in keeping everything neat and in order.

18. Don't be afraid to say, "*I don't know*,"—if you don't.

19. If you have made a false statement about anything in a lesson—don't be afraid to acknowledge it.

20. Correct all errors in English speaking that you notice.—*Journal of Ed., St. Louis.*

### COMPOSITION.

Use the following questions and write about the *reindeer*, the *elephant*, the *horse*, the *lama*, the *goat*, or some other domestic animal.

1. What is a domestic animal? Is the — one?

2. If so, in what countries? Where has it been found wild, or where is it now found wild?

3. Of what country is it a native?

4. By whom domesticated?

5. How or by what people introduced into other countries?

6. While it is alive of what use is it to man?

7. Of what use after its death?

8. What could take the place of the animal if it were exterminated?

9. Give any facts you can to illustrate its intelligence, affection for man, or its tractability.—*The Teachers' Aid.*

### THE FIRST DAY.

THE first day of school, with a new teacher is the most important day of the school year. Upon the work of no other day does so much depend. Upon no other day do children listen so closely to what the teacher has to say. Upon no other day is every word and every movement of the teacher so carefully noted and weighed. A good impression made upon the minds of the children the first morning and the first day will be a great help for days and months to come. A bad impression made at the opening of school is very, *very* hard to overcome. This being true the great importance of studying the first day's work is apparent.

The following things are essential to any successful opening of a school by a new teacher.

1. The building should be in good order and comfortable.

2. The teacher should know the classification of the school, including the point in the books which each class had reached.

3. The teacher should have definitely planned a *short* opening exercise, and all the steps preliminary to organization.

4. As no idle school can long be kept in good order the whole energy of the teacher should be directed toward giving each one *something to do*, as soon as possible.

5. Allow nothing in the way of disorder on the first day that is not to be permitted on after days.

A good beginning is half the battle.—*Indiana School Journal.*

THE most practical education is to put a child forth into the world with all his powers harmoniously developed, his observation acute, and his judgement quick and accurate. The most important question with every teacher is not how he can make a child see more clearly into arithmetic, but to teach him how he can best employ it and similar studies as a groundwork for the highest possible development.—*Professor H. Sanborn.*

PATAGONIA has been obliterated from the map of South America. To Chili has been assigned all the western slope of the Cordilleras to the southern extremity of the Continent. The remainder becomes the property of the Argentine Confederation. Tierra del Fuego is parted equally, while Chili takes all the other islands.

## Educational Intelligence.

### THE METHODIST GENERAL SECRETARY OF EDUCATION.

IN creating the new office of General Secretary of Education, says the *Mail*, the Methodist Conference has taken a most important step, and in the appointment of the Rev. Dr. Potts as the first incumbent of that office it has shown that it is deeply sensible of that fact. Dr. Potts ranks among the very first of the pulpit orators of the Methodist Church in Canada or elsewhere. His power as a preacher of the Gospel has long been recognized, and the immense audiences which always flock to hear him are sufficient proof of the popularity of his ministrations. To take such a man from the active work of the ministry is a step which is warranted only by the most pressing need in another direction. That such a need exists is the unanimous opinion of the Conference.

The want of a general superintendent of educational matters has long been felt by the Methodist Church, but the chief obstacle in the way of such an appointment has always been the expense. It is felt that the time has come when such a consideration can no longer be allowed to prevail. Apart from the growing work of the Educational Society, the recent action of the Conference with regard to Victoria College makes it absolutely necessary that the interests of the Church in these matters should be entrusted to the care of an officer specially appointed for the purpose—a man of energy and strong abilities, and one, moreover, possessed of special qualifications for the task. Such a man, Conference unanimously declares, is Dr. Potts, and he has been offered and has accepted the trust. The grand testimonial given by Dr. Douglas to his mental strength, his personal magnetism, and his worth as a man and a Christian minister, was endorsed by the whole Assembly, the united voice of which was in favour of the appointment. The Methodist Church in Canada is now about to make a supreme effort in educational matters, and the difficulties in its way are great. It is the general feeling that if any man can grapple with these difficulties successfully it is Dr. Potts. We congratulate both him and the Church on the appointment.

### THE CANADIAN EDUCATIONAL EXHIBIT.

THE *Times* says of the educational section of the Canadian Court at the Colonial Exhibition: "As the section devoted to education and instruction shows, Canada has an excellent system of national education. This section has been admirably arranged by Dr. Pasmore May, the Commissioner in charge of the education exhibits; and would require an article to itself to do it justice. In this department we have a very considerable library of works relating to Canada, a feature wanting in most of the other Colonial Courts. We regret to see that Canada seems as far behind in geographical instruction as we are ourselves, to judge from the maps exhibited, which, on the whole, are very poor. There is one great relief map of Europe shown by the Education Department which is very bad indeed. We find, for example, a great range of mountains in Kent as high as the Grampians. Otherwise this educational exhibit reflects the

highest credit on the colony. There is much historical and statistical matter showing the progress and present condition of education; exhibits illustrative of school methods and organization; a fair show of photographs of schools, colleges, etc.; school furniture and fittings, some of them highly ingenious; text-books of all kinds; apparatus used in teaching anatomy and physiology, physics, chemistry, and other subjects; with abundant specimens of pupils' work in all departments. Then we have exhibits for mechanics' institutes, art schools, institutes for deaf, dumb and blind, agricultural and other special colleges, universities, and the higher institutions. All these are shown and are exhibited by the Ontario Government; but other Provinces have also sent exhibits.

GEO. M. ROBINSON has been re-engaged as head master of Tottenham Public School for 1887. His salary is now \$525, having received an advance of \$50.

THE Toronto School Board intend to open other two kindergartens in connexion with the public schools; these will make five kindergartens under the control of the board.

MISS NELLIE GREENWOOD, B. Sc., of Cobourg, has been engaged as teacher for the Peterboro' Collegiate Institute, to fill the vacancy caused by the resignation of Miss Robinson.

THE teachers of Western Manitoba held a convention in Brandon on the 24th and 25th of this month. Rev. Mr. Wellwood, Inspector of Schools, had charge of getting up a programme for the occasion.

HALIFAX has two private kindergartens, one opened in 1879 by Mrs. Dincock and the other in 1880 by Miss Jessie S. Campbell, graduate of the Kraus Heite Seminary, New York. In Yarmouth a kindergarten has been opened, conducted by a graduate from Miss Campbell's training class, so far with success.

AT the N.S. Teachers' Association Dr. Hall proposed the establishment of a summer school of science, during the holiday season. A number of prominent educationalists could be brought in, and botanical, geological, zoological, etc., excursions made, that would be a relaxation and a source of great profit. The project will be put into the hands of a committee.

PRINCIPAL MILLER, of the collegiate institute, St. Thomas, has received notice from the Hon. G. W. Ross, Minister of Education, that Monday, October 4th, has been set apart as "Commencement Day" for the institute in that city, on which occasion the Minister will be present and a public presentation of the diplomas granted by the Department and won by the students of the institute at the recent examinations will take place.

WE learn from the Vienna correspondent of the *Daily News* that the schoolmasters of Austria recently held a meeting "with a view to prepare a petition for the re-introduction of the rod, which was abolished many years ago. The friends of the rod, however, did not obtain a majority large enough to justify the petition." We should be glad to learn from some of our Austrian readers the arguments by which the majority supported the retention of the present law, and the regulations and punishments which replace the use of corporal punishment.

THE revenues of the New Brunswick University are entirely too small to provide a staff of teachers such as a state university requires. The Provincial grants are regularly paid, but no money comes in from private sources. The result is that the only Government university in the Maritime Provinces has an income not much larger, a staff numbering but one more than the poorest of its four rivals. No college makes a better showing for the money it costs than does the University of New Brunswick, and it could not be expected that great advance can be made without greater outlay. Perhaps President Harrison may yet be able to tap the spring of private benevolence.—*St. John, N.B., Sun.*

THE Kent County Teachers' Institute was held on the 9th and 10th of September, in Richibucto, New Brunswick. Thirty-six teachers were present. The subjects taken up were History, by Mr. Coates, a paper on the Grammar School, by S. S. Harrison, a lesson on Language, by Miss Sadie Hutchinson, Manual Work in Our Schools, by the Institute generally, How to secure Good Spelling, by John Gillis, and a lesson on Arithmetic, by T. E. Coleman. The proceedings generally were of a very interesting character, the presence of the Chief Superintendent acting no doubt as an inspiration. A public meeting was held which was addressed by the Chief Superintendent, Rev. Mr. Hamilton, Messrs. Hutchinson and McInerney, Senator Poirier and the chairman, J. D. Phinney. There was a very large attendance, and the meeting was a decided success.

THE Westmoreland County (New Brunswick) Teachers' Institute met in Memorial Hall at Sackville on Thursday, Sept. 16, at 10 a.m. Programme: First Session—Enrolment of members, reports and election of officers; second session, "School Apparatus," by Geo. Oulton; "The Personal Influence of the Teacher," by Miss Alice Adams; third session, "The three R's," by Miss E. C. Doiron; address by the Chief Superintendent of Education; fourth session, "How to Elevate our Profession," by John Britain; practical questions in teaching and school management and their answers. A public meeting was held in Lingley Hall on Thursday evening, at which addresses were given by the Chief Superintendent of Education and by several of the college professors. Prizes were given to departments and schools making the best exhibit of work in drawing, map drawing, letter-writing, arithmetic and book-keeping. Prizes were also given to pupils showing best work.

"It is impossible," says Sir William Dawson, "for any man to keep pace with the progress of more than one limited branch of science, and it is equally impossible to find an audience of scientific men of whom anything more than a mere fraction can be expected to take an interest in any one subject." Even in addressing specialists, therefore, the President of the British Association is required, not, indeed, to be merely popular, but to treat his theme in a manner intelligible to men of ordinary intelligence and culture. In the satisfaction of these difficult conditions Sir William Dawson has achieved a success which need not stand comparison with the efforts of his most distinguished predecessors.—*The Times, London, Eng.*

## Table Talk.

I HAVE no respect for that self-boasting charity which neglects all objects of commiseration near and around it, but goes to the end of the earth in search of misery for the purpose of talking about it.—*G. Mason.*

No system of public education is worthy of the name, unless it creates a great educational ladder, with one end in the gutter, and the other in the university.—*Prof. Huxley.*

SIMULTANEOUSLY with the death in Paris of the good man Guilbert, the bad woman Cora Pearl goes to her last account. The amount of harm such a person could do in thirty years is hardly conceivable. She was so bad that luckily she thus aided in disgusting France with the fraudulent Emperor Napoleon III., whose favourite she had been. It is the fate of such creatures to live in obscurity during the latter portions of their lives, and then to endure an apotheosis in questionable romance. So it will be with this English woman, Emmeline Crouch.—*The Current.*

### A DECORATIVE MAIDEN.

"Oh, where are you going, my dear little maid?"  
 "To the school o' fine arts, if you please," she said,  
 "To learn how to paint on china and glass,  
 On velvet and satin, silk, linen and brass;  
 On wood, tin and canvas, on matting and zinc,  
 Slate, marble and tiles, and leather, I think.  
 I have already painted a screen and three plaques,  
 A whole set of dishes, and two little racks,  
 A stand for umbrellas—  
 A lovely one, too,  
 With a ground of sienna  
 And lands of light blue,  
 And cat tails a dozen, so straight and erect,  
 Growing up all around, with artistic effect.  
 There are other things, too, which I can't stop to tell,  
 But I think for six lessons I've done very well."  
 —*E. Sylvester, in St. Nicholas for September.*

SOME revelations are made, says an English paper, which throw a disagreeable light on the habits of the busy bee, whose bright example has been the theme of so many moral discourses. The bee is found to be neither more nor less than a downright drunkard, when he gets the chance, preferring the easy delights of cordials and spirits to the toilsome flights o'er sunny swards and honey-laden flowers. There is a swarm of bees no farther away than Kennington who persist in improving the shining host by gathering honey from spirits and cordials. The bottle applied to the magistrate for protection, but the magistrate remarked that they evidently preferred those insubstantial liquids to flowers. "It was impossible to mazzle the bees, ferocious though they were, and Sir Charles Warren has not yet issued any edict defining control:" so said Mr. Chance. He might have added that if they were intoxicated or disorderly he would be willing to grant a warrant for their apprehension. However, this view did not strike him. If the awful example of the Kenningtonians spreads, Sir Wilfred Dawson may find in bees a more powerful agent than all the formidable and extensive organizations of the alliance. If bees once begin to lay siege to public-houses, gin-palaces, breweries and distilleries, why, the landlords may as well shut up shop.—*Ex.*



## Examination Papers.

### UNIVERSITY OF TORONTO.

Annual Examinations, 1886

#### JUNIOR MATRICULATION.—ENGLISH.

#### ARTS. FOR PASS. MEDICINE: FOR HONOURS.

Examiner—JOHN SEATH, B.A.

Candidates in Arts will take all the questions except Nos. 6 and 7 of I.

Candidates for Honours in Medicine will take all except Nos. 2 and 3 of I.

I.

#### GRAMMAR.

1. "For, whilst some, with a foolish affectation of plebeian sympathy, overwhelm us with the insipid common-places about birth and ancient descent, as honours containing nothing meritorious, and rush eagerly into an ostentatious exhibition of all the circumstances which form the notice of a humble station and humble connections; others with equal forgetfulness of true dignity, plead with the intemperance and partiality of a legal advocate for the pretensions of Shakespeare to the hereditary rank of gentleman."

(a) Make a list of those words in the above extract that are not of purely English origin, indicating after each the language to which it originally belonged, and stating briefly any noteworthy points in its history with which you are acquainted.

(b) Rewrite the extract, using, as far as possible, words of purely English origin.

2. *gloves, fearful, fulfil, women's, accommodate, had, man-of-war, walking-stick, marchionesses, running.*

Distinguish between Derivation and Composition. Illustrate your answer by classifying the above words as far as possible, as derivatives on compounds, and explain the structure of those which you do not place in one or other of these classes.

3. Explain fully, with illustrations, the differences and the resemblances between the noun and the pronoun, the adjective and the participle, and the preposition and the conjunction.

4. Justify the forms of the italicised words in the following:

His *clothes* are always made of *fine cloths*. He uses too many *'s*. James has gone *further* than his brother. O that I *were* there. He will not go till he *sees* me. My blood ran *cold*. Ah *me!* If I *were* he, I *should* go.

5. Classify and give the relation of the clauses in the following sentences:

- If he were honest, he were much goodlier.
- Beshrew my soul, but I do love thee!
- I would speak to her as if she were a friend.
- He seemed more than ever her son when returning from school.
- There was no need that he should do so.
- He that hath ears to hear, let him hear.
- He likes to play, which indeed most boys do.
- If I were covetous, how is it I am so poor?
- O that thou hadst done so!
- Wherever you go, don't go there.

6. Explain and illustrate the following statement:

"When looked at from the purely grammatical point of view, the history of our language is little else than the history of corruptions."

7. Write the meaning of the following without using figures of speech:

(a) Athens was the eye of Greece, the mother of eloquence.

(b) O gentle sleep, Nature's soft nurse.

(c) A tyrant's power in rigour is expressed,  
The father yearns in the true prince's breast.

(d) Blossoms and fruits and flowers together rise,  
And the whole year in gay confusion lies.

(e) The way of the slothful man is an hedge of thorns.

(f) Arm! arm! it is—it is—the cannon's opening roar.

#### II.

1. Of the Saxons who were unable, or would not emigrate, many took refuge with their families in the forests, and with their servants, if they were rich and potent, infesting the roads along which the Norman convoys passed with their hands, returning back again that which the victor's had taken from them in mass, in detail, and thus obtaining ransom for their heritages, or revenging the massacre of their compatriots by assassinations. The historians favourable to the Conquest, call these refugees brigands, who in their narratives treat them as men wilfully and wickedly armed against lawful order. Every day, say they, infinite thefts and homicides were committed, instigated by the natural and innate wickedness of the natives and the excessive riches of the kingdom: but they thought they had a right to recover as best they might, those riches of which they had been deprived, and it was only in their opinion to obtain their own property if they became robbers, the order against which they rose, the law which they violated having no sanction in their eyes; and thus the English word outlaw lost its once unfavourable meaning, in the mouth of the subjugated people, so much so that the old, the popular legends and romances of the English, have impressed a sort of poetic colouring over the person of the proscribed man, and the wandering and the free life they lived in the greenwood.

(a) Exemplify, from the preceding, violations of the laws relating to Paragraph-construction, Purity, Clearness, Strength, and Melody.

(b) Rewrite the extract in good literary form.

2. Write a composition on any one of the following subjects, using as paragraph-subjects the subordinate subjects appended:

(a) THE AUTHORSHIP OF THE LETTERS OF JUNIUS: The letters; their supposed author; the external evidence; the internal evidence.

(b) THE OPENING SCENE AT THE TRIAL OF HASTINGS: The place of trial; the audience; those engaged in the trial; Burke's speech.

(c) THE LATER YEARS OF HASTINGS: His acquittal; popular opinion thereon; his life in retirement; his death and his character.

#### ARTS AND MEDICINE. HISTORY AND GEOGRAPHY. PASS AND HONOURS.

Examiner—JAMES W. BELL, PH.D.

\* \* Candidates in Arts will take the first ten questions only. Pass Candidates in Medicine will take questions 7 to 13 inclusive, and Honour Candidates in Medicine 5, 6, and 14 in addition.

1. (a) Examine at length into the causes that led to the Peloponnesian war; (b) mention the states that took part in it on either side; (c) and give an account of the progress of the war from the Peace of Nicias till its close, mentioning names and dates when possible.

2. Write an article on the geography of Attica.

3. Give an account of the social and political struggles in Rome from the time of the Gracchi to the death of Sulla.

4. Describe the boundaries of the Roman Empire at the death of Augustus, and mention briefly and in chronological order when and how the territories lying outside of Italy were acquired.

5. Write a brief article on the constitutional history of the reign of William III.

6. (a) By what right or title did George I. ascend the English throne?

(b) Write an article on the political history and character of Walpole.

7. (a) What were the causes of the American War of Independence?

(b) Sketch the history of this war to Burgoyne's surrender at Saratoga.

8. Draw an outline map of Spain and France showing the courses of the principal rivers with the cities and towns of importance on each river.

6. Mention the states that border on Pennsylvania, and write brief notes on their capitals.

10. What states of the Union are noted for the production of rice, tobacco, silver, coal, and iron, respectively?

#### FOR CANDIDATES IN MEDICINE ONLY.

11. Give an account of the Norman Conquest, pointing out its influence on English history.

12. Over what countries did Henry II. rule? Mention by what right or title he ruled over each.

13. Give the causes of the Hundred Years' War, and sketch the history of the latter half of it.

14. Give an account of the struggle between Charles I. and his parliaments.

#### ARTS.

#### HISTORY AND GEOGRAPHY—HONOURS.

Examiner—JAMES W. BELL, PH.D.

1. Give an account of the voyages of discovery of the Tudor period.

2. Write an article on James I. and his favourites, and show what influence government by favourites had on English constitutional history.

3. Sketch the chief events in the history of the Long Parliament, giving dates and mentioning names where possible.

4. Give an outline of the political history of England during the reign of Charles II.

5. Draw an outline map of England and Wales, naming the counties and showing their relative size and position.

6. Locate and write notes on: (a) Manchester, (b) Leeds, (c) Nottingham, (d) Maynooth, (e) Paisley, (f) Sunderland.

7. Describe the principal British possessions in the West Indies, mentioning when and under what circumstances they were acquired.

ARTS—ENGLISH—HONOURS.

Examiner—JOHN SEATH, B.A.

THE MERCHANT OF VENICE.

1. According to some critics this play teaches the most comprehensive humanity; according to others it caresses the narrowest bigotries of the age. Defend concisely the view you think correct.

2. Let me play the fool:  
With mirth and laughter let old wrinkles come;  
And let my liver rather heat with wine,  
Than my heart cool with mortifying groans.  
Why should a man whose blood is warm within  
Sit like his grandsire cut in alabaster?  
Sleep when he wakes? and creep into the jaundice  
By being peevish? I tell thee what, Antonio,—  
I love thee, and it is my love that speaks,—  
There are a sort of men, whose visages  
Do cream and mantle like a standing pond;  
And do a wilful stillness entertain,  
With purpose to be dress'd in an opinion  
Of wisdom, gravity, profound conceit;  
As who should say, "I am Sir Oracle,  
And when I ope my lips let no dog bark!"  
O, my Antonio, I do know of these,  
That therefore only are reputed wise  
For saying nothing; who, I am very sure,  
If they should speak, would almost damn those ears  
Which, hearing them, would call their brothers fools.  
I'll tell thee more of this another time;  
But fish not with this melancholy bait,  
For this fool gudgeon, this opinion.

(a) Explain and comment upon the meaning of "play the fool," "mortifying," "a wilful stillness entertain," "an opinion of wisdom," "conceit," and "let no dog bark."

(b) Develop the force of each of the figures of speech in lines 5-8, 11 and 13, and 23 and 24.

(c) Explain the bearing of the speaker's remarks upon the preceding context, and comment upon their wisdom.

(d) What characteristics of the speaker are displayed in the extract?

3. To bait fish withal: if it will feed nothing else it will feed my revenge. He hath disgraced me, and hindered me half a million; laughed at my losses, mocked at my gains, scorned my nation, thwarted my bargains, cooled my friends, heated mine enemies; and what's his reason? I am a Jew: hath not a Jew eyes? hath not a Jew hands, organs, dimensions, senses, affections, passions? fed with the same food, hurt with the same weapons, subject to the same diseases, healed by the same means, warmed and cooled by the same winter and summer, as a Christian is? If you prick us, do we not bleed? if you tickle us, do we not laugh? if you poison us, do we not die? and if you wrong us, shall we not revenge? If we are like you in the rest, we will resemble you in that. If a Jew wrong a Christian, what is his humility? revenge: If a Christian wrong a Jew, what should his sufferance be by Christian example? why, revenge. The villainy you teach me I will execute; and it shall go hard but I will better the instruction.

(a) Express the speaker's meaning in the briefest and most impassioned form.

(b) Show in detail how the intensity of his emotions has moulded the expression of his meaning, naming the emotions and the rhetorical forms.

4. State what seem to you to be Portia's reasons for the different steps she takes in the management of the trial, and show that her deportment there and the plan she forms for the release of her husband's friend, illustrate the finest traits in her character.

5. *Por.*—That light we see is burning in my hall.  
How far that little candle throws its beams!  
So shines a good deed in a naughty world.

*Ner.*—When the moon shone we did not see the candle.

*Por.*—So doth the greater glory dim the less:  
A substitute shines brightly as a king,  
Until a king be by; and then his state  
Empies itself, as doth an inland brook  
Into the main of waters. Music! hark!

*Ner.*—It is your music, madam, of the house.

*Por.*—Nothing is good, I see, without respect:  
Methinks it sounds much sweeter than by day.

*Ner.*—Silence bestows that virtue on it, madam.

*Por.*—The crow doth sing as sweetly as the lark,  
When neither is attended; and, I think,  
The nightingale, if she should sing by day,  
When every goose is cackling, would be thought  
No better a musician than the wren.  
How many things by season seasoned are  
To their right praise and true perfection!

Peace, ho! the moon sleeps with Endymion,  
And would not be awaked.

(a) Explain and comment upon the meaning of "naughty"; "state"; "the main of waters"; "without respect"; and ll. 10, 13-15, and 19-22.

(b) Show how the poet has secured the quality of Harmony in the above.

(c) Account for Portia's mood, and show the dramatic propriety of each part of the afterpiece to the trial.

6. Describe the scene in which Bassanio makes his choice of the caskets, embellishing your description with brief quotations.

ARTS AND MEDICINE—MATHEMATICS.

Examiners—{ A. K. BLACKADAR, M.A.  
J. W. REID, B.A.

1. If a straight line falling on two other straight lines, make the alternate angles equal to one another, the two straight lines shall be parallel to one another.

Find a point *B* in a given straight line *CD*, such that if *AB* be drawn to *B* from a given point *A*, the angle *ABC* will be equal to a given angle.

2. Divide a given straight line into two parts, so that the rectangle contained by the whole and one of the parts may be equal to the square on the other part.

Show that in a straight line so divided, the rectangle contained by the sum and difference of the parts is equal to the rectangle contained by the parts.

3. If a straight line touch a circle, and from the point of contact a straight line be drawn cutting the circle, the angles which this line makes with the line touching the circle shall be equal to the angles in the alternate segments.

If two circles touch each other, any straight line drawn through the point of contact will cut off similar segments.

4. A contractor engaged to complete 1,000 yards of railway in 50 days, and employed 100 men working 9 hours a day, but at the end of 30 days he found only 450 yards finished; how many additional men must he hire, in order that all working 10 hours a day may finish the work in the given time.

5. Express  $\frac{1 - \frac{1}{2}}{322.2}$  of £15, 17 $\frac{1}{2}$ s. as a decimal of a dollar, assuming the value of \$30 to be \$146.

6. Standard gold is \$18.9437 an ounce; find the least number of ounces that can be coined (1) into an exact number of \$5 pieces (2) into an exact number of sovereigns, and find the number of coins in each case.

7. (a) Multiply together  $1 - x + y + y^2$ ,  $1 - x - y + y^2$ , and  $\sqrt{x - y} - 1$ .

(b) Divide  $a^4 + (a^2 + 1)^4 + 1$  by  $a^4 + a^2 + 1$ .

8. Write down the factors of  $a^2b^2c^4$ , and  $x^2 - 5x - 36$ .

Reduce to its lowest terms the fraction

$$\frac{\left(\frac{1}{b} - \frac{1}{a}\right)\left(\frac{1}{c^2} - \frac{1}{ab}\right) - \left(\frac{1}{c} - \frac{1}{b}\right)\left(\frac{1}{b^2} - \frac{1}{ac}\right)}{\left(\frac{1}{c^2} - \frac{1}{ab}\right)\left(\frac{1}{bc} - \frac{1}{a^2}\right) - \left(\frac{1}{b^2} - \frac{1}{ac}\right)\left(\frac{1}{ac} - \frac{1}{b^2}\right)}$$

9. Solve the Equations:—

(a) 
$$\frac{5x^2}{(x-1)(x-2)} + \frac{1}{x-1} - \frac{8}{x-2} = 5$$

(b) 
$$\frac{1}{1-x^2} + \frac{1}{1-x} - \frac{21}{4} = \frac{51}{4}$$

(c) 
$$\begin{cases} x^2 = y^2 \\ x^2 = y^2 \end{cases}$$

(d) 
$$\begin{cases} x^2 + y^2 = 13 \\ 2x - 3y = 6 \\ 1 - y^2 = 3x \end{cases}$$

10. A person bought a certain number of sheep for \$90. Having lost 4 of them, he sold the remainder of them at \$1.50 a head profit, and found that he had gained on his bargain a rate per cent. equal to the number of sheep bought. How many sheep did he buy?

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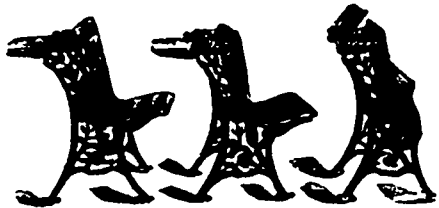
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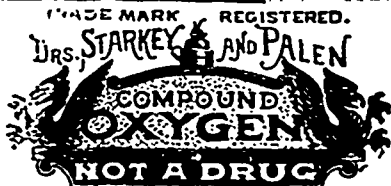
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