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# Educational Weekly

VOL. IV.

THURSDAY, SEPTEMBER 9TH, 1886.

Number 86.

## 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 9, 1886.

THE Orillia *Packet* says, without mincing its words:—"A large proportion of those plucked by the absurd strictness of the High School entrance examination, will not return to the Public School to put in another term for little benefit, and are going into a life occupation with a poor education, whereas, if permitted to spend a year or two at the High School, the rudiments of an education already received would become valuable, and they would be possessed of a good education. How the present injurious system has survived so long is a mystery to practical educationists."

But we think something can be said on behalf of the strictness of the Entrance Examinations. It is well to put a well-defined line of demarcation between the Public and the High School. Each has its own sphere, and neither should do the work of the other. Those who failed to

pass the examination may reasonably be deemed to have been unfitted for High School classes, and would not only have been unable to make proper use of the "rudiments of an education already received," but would have deterred others from advancing as rapidly as they otherwise could on account of their own backwardness.

One of the chief faults in our high schools is the very various degrees of knowledge and of "grounding" possessed by the pupils of the same class. Any thing that tends to equalize this makes the duty of the master easier. Had the examinations been easy there would have resulted to the high school a large influx of improperly and partially "grounded" pupils to whose advantage it would have been to have remained another year in the public school.

That those unfortunates who were unable to pass the examinations do not return to the public school is no fault of the system, and the system should not be blamed for their "going into a life occupation with a poor education." This is the fault of their parents, their guardians, or themselves. What the *Packet* would substitute for "the present injurious system," a "mystery to practical educationists," it omits to state.

We have ourselves, not once or twice asserted that the school system of Ontario is very far from a perfect one; the fact that a few unsuccessful candidates petulantly refuse to return to the public school after failing to enter one of higher grade, appears to us altogether beside the mark.

If it is the unexpected stiffness of the examination which is complained of, this is a question to be discussed on other lines. As a substitute for Entrance Examination papers set by examiners appointed by the Government, we should feel inclined to suggest that the masters of the high and public schools should of themselves determine which pupils are fitted and which unfitted to leave the public schools.

Between the first and sixth forms of an

English public school there is perhaps as great a step as between a Canadian public school and, let us say, the second year of the University of Toronto. The promotion of boys from one form to another is determined by the co-operation of his form-master and the master of the form above. His own master recommends him for promotion, and he immediately takes his seat at the foot of the form above. If the master of his new form finds that his new pupil cannot keep up with his class, gains no places, and is unfit, mentally, and not from mere indolence, to grasp the new subjects, he is once more sent back to his old form.

Something of this kind might, perhaps, be tried in determining which pupils are ready for our high schools.

THESE sentences (from an exchange) should show the teacher how deep lie his responsibilities:—It is not so much what is taught in the school room as how it is taught, that determines the success of the teacher. No two teachers impart the same amount of instruction in teaching the same subject. The success of the school depends more upon the teacher than anything else. It matters not how well the school may be graded, or how faultless the text-books used, if the teacher is not in earnest no good can be accomplished. No use to talk about school houses—we need better houses—in fact, we must have better houses, but let us have better teachers. A good teacher will succeed under almost any circumstances, while a poor teacher cannot succeed anywhere."

THE statistics of teachers' salaries in New Brunswick, as given in the Annual Report for 1885, are as follows: Male teachers of the first class, \$511.80. This does not include the principals of the grammar schools. Female teachers of the first class, \$333.43. Male teachers of the second class, \$313.97. Female teachers of the second class, \$233.13. Male teachers of the third class, \$226.32. Female teachers of the third class, \$228.46.

## Contemporary Thought.

I THINK there is no fault more prevalent in the present age than levity. The lofty in character, the high in station, the most sacred subjects, are alike objects of sport. Persons whom you know to be good and far from wishing to hurt the feelings of, or in any way injure others, yield to this fault. In this age it is thought to be evidence of brightness, smartness, to be quick at picking all things to pieces, uttering thoughtless speeches concerning the manners or lives of those with whom we come in contact. To find motives for things other than what appears on the surface is counted wit. This spirit pervades our newspapers, our society, our conversation, everything, and seems to be killing all reverence for any person or thing, however high or holy.—*Parish Visitor.*

THE Rev. Thomas F. Green, pastor of the St. Andrew's Protestant Episcopal Church of Chicago, sees great evil in the public schools there as now conducted. He said from his pulpit on Sunday that, just as sure as the secular tendency of the schools prevailed, atheism and infidelity would flourish in the land, leaving the inevitable fruits of anarchy and communism. He thought the secularization of the schools largely responsible for the growing evils of the social and business world. Without Bible, without Christ, without religion, almost without morality, they could not but breed atheism and wickedness. Mr. Green proposes to establish parochial schools in his parish to in some measure counteract the baneful influence of the public schools.

THERE is almost no limit to the physical development and health that may be gained and maintained by walking, which is done for the purpose of exercise. Any one can find time and space in which to walk, and one can find congenial company for such trips. A prospective husband is not the best company at such times, for with him the walk will almost inevitably degenerate into a saunter; further, no woman can walk freely when custom or affection compels her to lean upon a masculine arm. To be beneficial walking must be done in shoes broad enough to let the feet be placed firmly upon the ground at every step, and in clothing which will allow free play to lungs and arms. The step should be as quick as can be maintained without causing uncomfortable increase in the action of the heart. The pedestrian should breathe through the nose, carry the head erect, and not be afraid of becoming high shouldered.—*Cincinnati Enquirer.*

It has been openly asserted, not so long ago, that a journalist is neither a missionary nor an apostle. Knowing as I do that it is given to journalists to write the only printed matter on which the eyes of the majority of Englishmen ever rest from Monday morning to Saturday night, I cannot accept any such belittling limitations of the duties of a journalist. We have to write afresh from day to day the only Bible which millions read. Poor and inadequate though our printed pages may be, they are for the mass of men the only substitute that "the progress of civilization" has provided for the morning and evening service with which a believing age began and ended the labours of the day. The newspaper—too often the newspaper

alone—lifts the minds of men, wearied with daily toil and dulled by carking care, into a higher sphere of thought and action than the routine of the yard-stick or the slavery of the ploughshare.—*W. T. Stead in Contemporary Review.*

WITHIN the past ten years, instead of making strong books and strong meat for the mind, our publishers have been giving us decoration books, all bursting with illustrations, sensuous things that catch the eye and do not minister to the soul. You can not make a literature in your country without sitting sincerely down before it, working for long results, working carefully, with continuity, and as other men have made literatures. You can not make literature with magazine articles, you can not make it with pictures. After the literature is made your artist can come along and illustrate successive editions of your author, but I never heard of pictures carrying the author to the seventh heaven with them. Literature will never amount to anything in this country as long as it is made a sort of button hole bouquet carried into some prominence by a flimsy society. The honest characters which should in their interminglings make American literature, are not to be found around delicate dinner services. You will find them eating off blue china in the vales of your country. You will find them in the shops, along the seashores—even in the jails.—*Boston Globe.*

THE enemies of General Boulanger, having given him the lie by publishing photographs of his adulatory letters to the Duc D'Aumale, now point out that the said letters contain misspellings, bad grammar, and gross barbarisms in point of style. They affect to deplore this as a discredit to the Army and Government of France. But General Boulanger may be a distinguished soldier and a great statesman, and at the same time a bad speller and a writer of bad grammar. Our own Admiral Sir Charles Napier was a notorious blunderer when he sat down to write; and it is characteristic of the whole Napier family, not excepting Sir William, the historian, that they were as bad spellers as they were great men. The Duke of Wellington had much natural eloquence in him; but the orthography of his despatches was often at fault. Then there is the man who is acknowledged to be by far the greatest living statesman—Prince Bismarck. He not only failed to pass his examinations as a young man, but to this day, he cannot write half-a-dozen sentences on end (German sentences are not short) without one or more grammatical errors. There have not been, in modern times, many fighting men who could write with the elegance and refinement of the celebrated Northumbrian, admiral Collingwood. There were many such in ancient times; and, notably, there was Julius Cæsar, the greatest of all great fighting men, who actually wrote a grammar.—*Newcastle Chronicle.*

It is estimated that there are about twenty-eight miles of drainage—enough in length for the sewerage of a large town—in the system of sweat-tubes in the skin of an adult. Obstructing the outlets of this system clogs the whole, and sends the drainage back into the heart of the city—a speedily fatal effect. The average amount of perspiration given off by a person in health is about two pounds, or two pints, daily—a quantity almost

equal to that disposed of by the kidneys. It contains, in common with the other excretions, substances which, if retained, are harmful in the extreme. Also, the matter deposited in the clothing in the course of a week, and in warm weather especially, beginning speedily to decompose, is enough to suggest the eminent propriety of frequent changes, and washings and airings often. Sick lungs, liver, or kidneys call upon the skin to do their work for them. The skin must, therefore, be kept in good condition to do the work of three organs as well as its own, and, being so ready, may save a threatened life. The skin may be trained to adapt itself to sudden and frequent changes. It has the same capacity for adapting itself to circumstances that the eye has. It will shrink and give off little heat through its blood vessels and its sweat glands when exposed to cold, and will present a large radiating surface and much moisture when exposed to heat. A judicious training will enable the skin to adapt itself to sudden changes with safety.—*Lecture by Dr. Sheldon.*

It is an unfortunate habit with many people to consider that with the end of the holiday season comes the end of the year's enjoyment; that the law of compensation exercises its stern prerogative in the matter of pleasure as in most other things, and that the period of work is of necessity the period of drudgery and pain. Of course this does not apply to idle luxury, perhaps not even to the family with its united interests and oft-recurring pleasures; but more particularly to those who are much alone in the world. Work in itself and for its own sake is not pleasurable with the mass of mankind; it needs a definite aim, such as ambition, to give zest and real enjoyment. Apart from aim and end, work is very apt to become toilsome and unsatisfactory, and the call of duty is often answered with faltering voice and lagging step. This is doubtless the great reason for all the apathy that exists in human life and energy; and it is this which makes duty so unpleasant a word in the world's vocabulary. The Stoical philosophy tried to answer the problem of life in this respect and signally failed. The instinct in man for enjoyment is too strong to be suppressed, and no philosophy which takes no account of this faculty has ever been able to solve the problem of life, nor ever can. The great power and beauty, the perfection, indeed, of the Christian religion is that its only end is to satisfy this instinct in man for enjoyment. Matthew Arnold has laid immense stress in one of his essays, on the necessity of paying attention to what he calls man's instinct for conduct, and man's instinct for beauty. As he rightly insists there can be no true education, no culture, without the right appreciation of these two things. But they are both resolvable into one: they both arise from one—the instinct for enjoyment. The instinct for conduct arises from the enjoyment of the good and the true; and it was Keats' intense enjoyment of the beautiful which led to the expression of the well-known line: "A thing of beauty is a joy forever." Now the perfection of the Christian faith is that it appeals to man's instinct for enjoyment; it satisfies it in every way. Without this faith, the world has been proving for centuries that there can be no solid and certain happiness; the instinct for enjoyment, without it, craves satisfaction, and craves it in vain.—*J. O. M. in the Evangelical Churchman.*

Notes and Comments.

ERRATA.—In the article "Prizes and Scholarships," last week—page 516, for *regime* read *regime*; page 518, for "prize-man" read "prize-men"; for "blind" read "blinds"; for "hindermost" read "hindmost"; page 519, for "hardly meet" read "hourly meet"; page 522, for "necessary spirit" read "mercenary spirit." Mr. McHenry's proof-sheets were delayed in transmission.

THE following comparative statement of the results of the examinations of teachers for the last three years goes to show that notwithstanding the alleged greater difficulty of this year's examination papers the percentage of "passed" does not differ materially from the percentage in former years:—  
Number of candidates examined 1884, 5,128; number passed, 1,931, or 38 per cent.; number examined 1885, 4,541; number passed, 1,993, or 44 per cent.; number examined 1886, 4,997; number passed, 1,994, or 39 per cent.

THE best teachers are not those who never make mistakes, but those who never make the same mistake twice. Many things can be learned only by experience. No one can understand all the peculiarities of the human mind. Some new phase of character is seen every day. It is natural to err under such circumstances, but we should each day rise above our faults. No one need ever hope to obtain perfection. He must be strong indeed who never repeats a mistake. Each day weak places in our methods should be strengthened.

THE percentage of candidates taking physics and botany instead of French or Latin is increasing. In nine cases out of ten the science group of students will prove the more desirable in respect to both discipline and utility. Latin possesses high disciplinary value, but the mere memorizing of declensions and conjugations and cramming a few hundred lines of a Latin author are of little use. Investigation of problems in experimental science may afford as much mental exercise as discriminating the shades of meaning in the verb "facio," and they are certainly of more practical value. We do not decry the honest study of the classics, but a mere smattering of a dead language is usually worse than worthless.

THE *Pennsylvania Teacher* thinks that a contrivance could be invented with "a very long arm, which would instantly swing round and rap any pupil on the head who, in reciting, varied one word from the language of the text-book." This was suggested by a remark of Supt. Apgar of New Jersey, who said that "a fortune is waiting for the lucky man who would invent a machine so arranged that by simply turning a handle the exact questions of the book would be asked, thus

sparing the energy of the teacher." Such machines would meet with a large sale in machine schools. We have often thought that a grammar-parsing machine would be a God-send to grammatical grinders. It would be a sort of subject-of-a-finite-verb-must-be-in-the-nominative-case invention. It could parse on and parse forever with the usual minimum of thought and maximum of repetition.—*N. Y. School Journal*.

LEARN your business thoroughly. Keep at one thing—in no wise change. Always be in haste, but never in a hurry. Observe system in all you do and undertake. Whatever is worth doing at all is worth doing well. One to-day is worth two to-morrows. Be self-reliant; do not take too much advice; but rather depend on yourself. Never fail to keep your appointments, nor to be punctual to the minute. Never be idle, but keep your hands or mind usefully employed, except when sleeping. Use charity with all; be ever generous in thought and deed—help others along life's thorny path. Make no haste to be rich; remember that small and steady gains give competency and tranquillity of mind. He that ascends a ladder makes it the lowest round. All who are above were once below.—*Fergus Advertiser*.

A CORRESPONDENT has written to ask "how the University of Toronto decides upon the question of 'General Proficiency' in the Junior Matriculation in Arts." We reprint the following clause from the University Curriculum:—

In awarding the Scholarships for General Proficiency, every subject in which a Candidate has passed, is taken into account, and the Scholarships are awarded to such Students as have obtained the highest aggregate number of Marks upon the whole Examination of the year. A Candidate who has gained a Special Scholarship shall not be entitled to hold a Scholarship for General Proficiency, but his name shall be ranked in the Class List with the Scholars for General Proficiency, according to his marks in all the subjects. In awarding these Scholarships, the comparative value of the several Departments and Sub-Departments is estimated according to the following Schedule:

<i>For Junior Matriculation,</i>	
Greek .....	220
Latin .....	220
Mathematics .....	440
English .....	150
History and Geography .....	100
French .....	100
German .....	75
<i>For Senior Matriculation and First Year.</i>	
Classics .....	500
Mathematics .....	500
English .....	200
French .....	125
German .....	125

THE next High School entrance examination will be held on Tuesday, Wednesday and Thursday, the 21st, 22nd and 23rd December. The work in reading, arithmetic, spelling and pronouncing, writing, geography, grammar and composition as hitherto. The literature lessons for December are: The Truant, p. 46; The Vision of Mirza, pp. 63-71; The Bell of Atri, p. 111; Lochinvar, p. 169; A Christmas Carol, p. 207; Ghent to Aix, p. 285; A Forced Recruit, p. 287; National Morality, p. 295. For next July: The Vision of Mirza; Death of Little Nell, p. 100; The Bell of Atri; Dora, p. 137; The Changeling, p. 205; A Forced Recruit at Solferino; National Morality; The Two Breaths, p. 314.

In Drawing—Books Nos. 4 and 5 of the Canadian Drawing Course are to be used.

In History Outlines of English history, the outlines of Canadian history generally, with particular attention to the events subsequent to 1841. The municipal institutions of Ontario and the Federal form of the Dominion Government. At the December examination the marks assigned for English history will be 75 as heretofore, but 25 additional marks will be awarded as a maximum bonus for Canadian history. In July, 1887, and subsequently, English and Canadian history will be valued as prescribed in the regulations.

The literature for the next third-class teachers' examination will be taken from the new High School Reader, and will be different from that prescribed for second-class. The literature lessons for the former—class III.—are: The Golden Scales, from Addison, p. 88; Vicar of Wakefield, p. 127; Unthoughtfulness, Arnold, p. 227; Death of the Proctor, Carlyle, p. 274; The Reconciliation, Thackeray, p. 308; Arnold at Rugby, Stanley, p. 350; From the Mill On the Floss, p. 356; The Mystery of Life, Ruskin, p. 390; England in the Eighteenth Century, p. 409; A Liberal Education, Huxley, p. 412; and the following extracts, in verse: Byron's Isles of Greece, Bryant's To the Evening Wind, Longfellow's Hanging of the Crane, Clough's As Ships Becalmed, Tennyson's The Lord of Burleigh and The Revenge, Arnold's Rugby Chapel, Swinburne's The Forsaken Garden, and Gosse's Return of the Swallows.

The Literature for second class is Thomson's Seasons—Autumn and Winter, and the last three chapters of Southey's Life of Nelson.

In Latin—Caesar's Bellum Britannicum for classes II. and III.; additional for class II., Cicero's In Catilinam I. and Virgil's Æneid I.

In French—Lamartiné's Christophe Colombe for both classes, but only chapters XXV. to XL. for class III.

## Literature and Science.

### THE GIRL OF THE PERIOD.

ANOTHER VERSION.

SHE'S very much misunderstood  
And very much maligned,  
She leaves the good "old-fashioned girl"  
A long, long way behind.

True she may work, and also paint  
Kensington patterns queer,  
But a more useful girl ne'er lived  
In any former year.

Perhaps she owns a dandy pug  
But, then, why should'n't she?  
There's nothing wrong at all in that,  
So far as I can see.

She's cultured, but she's practical—  
Can sing, or play, or cook,  
Or cleverly converse with you  
About the latest book.

She rises with the early bird,  
Dresses her with care,  
And of accustomed household work  
She more than takes her share.

Herself the breakfast table sets,  
The dinner oversees,  
Prepares the salads or meringues,  
And daintiest of teas.

Makes jellies, puddings, bread or cake,  
French dishes not a few—  
In short, there's hardly anything  
This blessed girl can't do.

She plans the tired seamstress' work,  
And makes the children's frocks;  
And, though she doesn't like the job,  
She darns her father's socks.

The little ones all turn to her  
In any childish strait;  
On her the mother also leans  
In trials small and great.

She's just the girl for men to woo,  
May you and I, sir, win;  
But we must keep our records clean,  
She'll never wink at sin.

She is earnest and she's merry,  
Brilliant, but good and true;  
The most loving, brave and helpful  
Girl that you ever knew.

Truly she is misunderstood  
And very much maligned,  
She leaves the "good old-fashioned girl"  
A long, long way behind.

—Good Housekeeper.

### THE SPHINX UNCOVERED.

M. MASPERO, who from family circumstances has found it necessary to relinquish the superintendence of the important archaeological excavations now in progress in Egypt, has just given at the Academy of Inscriptions an interesting account of his

latest discoveries. With regard to the great Sphinx, M. Maspéro stated that the works of this year had lowered the surface of the ground surrounding the monument by 16 metres. Little more had now to be done before it could be ascertained whether the Sphinx rested on a pedestal. From the appearance of the Sphinx, now that it is so far disclosed, M. Maspéro is inclined to reject the opinion that it was carved on a huge rock commanding the plain. He considers that the plateau was hollowed out into an immense basin, at the centre of which the rock intended to be sculptured into the Sphinx was left intact. Among the numerous excavations made, M. Maspéro mentioned an untouched sepulchre of the twentieth dynasty, even the priests' seals on the doors remaining as when placed there.—*Paris Despatch to London Standard.*

### SYNONYMS.

ONE gets a vivid sense of the different atmosphere about words substantially synonymous in trying to make substitutions in a proof-sheet. For example, the lynx-eyed proof-reader has some day conveyed to you, by means of the delicately unobtrusive intimation of a blue-pencil line, the fact that you have repeated a word three times in the space of a short paragraph. You have to find a substitute. It is easy to think of half a dozen terms that stand for very nearly the same idea, but it is in the incongruous implications of them all that the difficulty lies. You consult your Book of Synonyms, and find there nearly all you have already thought of, but never any others. There is, however, one further resource. You have had from boyhood the Thesaurus of English Words. Hundreds of times, during all these years, you have referred to its wonderful wealth of kindred terms. You seem dimly to remember that on one occasion in the remote past you did find in it a missing word you wanted. It shall have one more chance to distinguish itself. Perhaps the sentence to be amended reads thus: "As he tore open the telegram a smile of bitter mockery flickered across his haggard features, and he staggered behind the slender column." Suppose, now, it is the word "mockery" for which you seek a substitute. The Thesaurus suggests a smile of bitter *bathos*, bitter *buffoonery*, bitter *slip-of-the-tongue*, bitter *scurrility*. Or suppose it is "staggered" that is to be eliminated. You find as alluring alternatives, he *fluctuated*, he *curveted*, he *liberated*, he *dangled*. If each one of these would seem to impart a certain flavour that is hardly required for your present purpose, you may write, he *pranced*, he *flapped*, he *churned*, he *effervesced*, behind the slender column. Or should the word to be removed be "haggard," you have your choice between his *squalid* features, his *maculated* features, his

*besmeared* features, his *rickety* features. Or, finally, if you are in search of something to fill the place of "column," your incomparable hand-book allows you to choose freely between the slender *tallness*, the slender *may-pole*, the slender *hummock*, *promontory*, *top-gallant-mast*, *procerity*, *monticle*, or *garret*. The object of this work, says the title-page, is "to facilitate the expression of ideas and assist in literary composition."—*Sept. Atlantic.*

WHEN Balzac was living in his garret in the Rue Lesdiguières, alone with his dreams of ambition, one of his rare recreations was to walk in the Jardin des Plantes or in the cemetery of Père la Chaise. From the summit of the hill of the City of Death we can imagine him contemplating the marvelous panorama of living Paris that lay at his feet, and as his eyes wandered over that ocean of roofs which cover so much luxury and so much misery, so many intrigues and so many passions, we can hear him flinging his proud challenge in the face of the mighty city and exclaiming in the words of Rastignac at the end of the "Père Goriot," "*Et Maintenant à nous deux!*" How gloriously Balzac comforted himself in the long and fierce struggle is manifested by that severe monument in the cemetery of Père la Chaise, on which we read, beneath a bust of the novelist by David d'Angers, the simple inscription "Balzac," and on the open book below the immortal title of "La Comédie Humaine."—*The Cornhill Magazine.*

THE field for geographical exploration is not yet exhausted even in Europe. Schrader states that in the north of Spain several ranges of mountains exist, some reaching a height of 10,000 feet, which have no place on any geographical map. In the Aran valley another discovery has recently been made. Triangulation showed a gap unfilled between two chains of peaks which approached from different sides, had been supposed to form a single range; and further exploration proved that the gap contained a large and hitherto unknown lake.

ELECTROPLATING with silver upon wood is now successfully performed, the process being adapted to handles of all kinds, including umbrellas, canes, carving knives, etc. The silver is thrown upon the wood by a process which, it is stated, has proved extremely difficult in practice. The deposit of silver, of course, follows all the peculiarities of the wood, and the ordinary handle is simply garnished in almost ineradicable silver.

THE discovery of a new gutta-percha tree is reported from East Nicaragua, the milk of the "tuno" being said to furnish gutta-percha of a superior quality. The supply is stated to be practically inexhaustible.

## Special Papers.

### ART EDUCATION.

#### I.—EDUCATION OF THE EYE.

MAN'S senses are the means by which he communicates with the world around him and with his fellow-men, and it is according to the state of their action or adaptation to use that his communication is more or less perfect, and the ends he seeks to accomplish more or less perfectly achieved. The limits of the education, or perfecting of the senses, have not yet, except in rare instances, been reached, and in those instances only when the whole powers of the mind have been devoted to the perfecting of one or two senses to the neglect, in many instances enforced neglect, of the rest. Instances of the superior education of the sense of touch may be found in the case of lace makers and of celebrated pianists, the results being astonishing to those who have never practised these arts, and the well-known development of this sense in the case of those born blind may be instanced as one where the training consequent on the enforced neglect of another sense has led to extraordinary results.

Sight and hearing are equally well developed among the aborigines of Australia and other wild races whose whole education may be said to consist in the development and training of those senses.

It is, however, with the education of the eye that we have especially to do, and with a branch of that education that no uncivilized race has apparently any idea of, for advancement in civilization always keeps pace with advancement in art, and it is with art education that we have to deal.

Possibly there are few subjects on which public sentiment or public opinion is so unformed and so vague as the utility of art in common life. Artists and poets have for ages been looked upon as a race apart, and excuses have been made for the eccentricities of some noted men, and sometimes (as in the case of Burns and Byron) for worse things than eccentricities, that they were not to be judged by the common standard because they were great poets or great painters. There is also a vague idea abroad that art is a good thing and that it should be encouraged, while now and then, at intervals of something like fifty years, an æsthetic craze seems to seize on the public mind, which, however, only amounts to a passing fashion, which rises, shines, and sets like any other of the fluctuating modes of filling idle time. But of what practical use art is, the public mind may be said to be ignorant; and not only the public mind, but those who should lead it and direct it seem to have but very little to say on this subject, and that little is not much to the purpose, but is almost always an endeavour to bring art down to a mercantile basis, and by talking of designs for manu-

facturing, book illustration, etc., to show that art schools are practical affairs in the sense that they are the means of helping people to make money. Following out this idea of practicability we find that when an art school is started, the result aimed at is to turn out a certain amount of work, to have a regular curriculum of studies, to make it as nearly like the routine of other schools as the supposed impracticability of the subject will admit. So the eye gets to be educated after much toil to see straight lines and the relation of curves to each other, by far the greater part of the time and attention of the pupil's mind being spent in educating the hand to draw those lines and curves and in learning to shade the drawings, while in the memory sketching class the eye learns to retain the outlines of forms, a faculty which is, however, soon lost without constant practice, and in the perspective class the eye learns practically nothing, it is the reasoning faculty which is here educated to represent receding lines by laws which are purely mathematical, and the hand is trained to draw them steadily. If the student reaches the highest or colour class, the eye learns how to imitate the colour of vases, flower pots, drapery, fruit, and human heads in a strong light, and attains to a limited knowledge of the relations of colours, but is not taught to apply them to the sights and incidents of every day life, so that we have known a gold medallist of the Boston school entirely at sea in attempting to draw a tree standing against a blue sky, and utterly incapable of distinguishing the tones of colour in running water, although able to show many highly finished drawings from one cast and colour studies of plants and vases, etc. When we come to the teaching of art in our common schools in Ontario, we find that its scope is limited to the making of copies from chalk outlines drawn on the blackboard, and of late to copying the studies in the book specially prepared for the purpose—a book quite inadequate to any useful purpose, one scale being so small that the eye is likely to be injured by closely following the studies and the hand cramped by drawing such small and intricate forms, which none but an artist in full practice and in a special line could draw accurately without correction. All this comes of attempting to teach an art without a proper understanding of the result to be attained, and of the reason why such a result should be desired, for, while the public mind insists on art being made practical if it must be taught at all, the endeavour to make it so has only led us to spoil our children's sight without teaching them anything useful. But suppose we try to find some other plan, suppose we go back to what we may call the *a priori* view, that is, that the education of the eye being the point aimed at, the principle thing to be done is to teach the proper use of it. This is certainly practical enough and

may seem to many to be so simple as to be unnecessary, for it may be supposed that most people are fully persuaded that they know how to use their eyes, in one word, that they can see. Now this is simply a proof of their ignorance, and it is a fact that the art of seeing as an artist sees, is so different from the ordinary everyday looking at things that it would be adding another sense to the great mass of human beings if they were taught to see in the artistic sense.

This does not include teaching to draw, but may be quite apart from it, and while the power of drawing forms and imitating colours may be acquired by very few in anything like perfection, the power of seeing the relations of forms to each other, or picturesqueness and the relations of colours and harmony, may be very readily acquired, especially by children, and once acquired will be always retained, as it adds a new joy to life.

Observe the people in a railway car passing through an uninteresting country, how many of them are capable of getting any pleasure from contemplating the scenery they pass through. But there is no country so uninteresting and no time of year so uninviting but that it abounds with either forms or colours that can give pleasure to the educated eye. Take the stretch of country between Toronto and Ottawa, on the C. P. R., and the time April, when all the snow has disappeared but patches more or less dirty in the swamps and woods, to the eye of the stranger to art the whole scene is uninteresting, flat, stale, and unprofitable; to the artistic eye it is a succession of pictures, the patches of snow repeat the cool grey of the lowering sky, and contrasts with the russet of the frozen rushes, while the dark olive green masses of the pine and hemlock are harmoniously broken by the warm grey of the deciduous trees, and the purple brown of the pine trunks accentuate the dark recesses of the foliage, and at once support and account for the oddly picturesque forms of the most characteristic trees that Canada possesses. But it is not to break the monotonous listlessness of a long railway journey that the art of seeing things as they are is valuable. It is every day and all the day, on the streets, in the shops and houses; pictures abound on all sides, and this can be more readily understood when we consider the subjects of some of the best known pictures. Look at "The Widow," by Luke Fildes. A poor man nursing a sick child in a mean room, with some small children playing on the floor—how many have admired this picture who would see nothing picturesque about the reality. "The Casual Ward," by the same artist, a very common scene of very common people, yet it has been gazed at by thousands and thousands with delight, who would not spend a minute looking at the originals from whom the picture was painted. How many thousands of

people paid a shilling each to see Rosa Bonheur's "Horse Fair," who would not cross the street to see the real thing. All this is because they have not learned to look for themselves, but must see through the eye of an artist before they can appreciate. I stood at one time and watched crowds of people returning to their homes in the evening, where a fine view of a beautiful sunset sky could be seen down the perspective of a street, while a picturesque church and some trees loomed darkly up in the distance, intensifying the brilliant tints of the clouds, and making a picture before a weak copy of which in an art gallery many of those very people would have stood entranced, but they passed it by without any signs of interest. How was this? They had never been taught to see for themselves. Is it not then time that something should be done to train the eye to see intelligently, even if it cannot be shown that "there is money in it." We teach our children in the common schools to sing, without expecting them to compose music, we give them glimpses of fine poetry in the last series of authorized readers, an effort which is worthy of all praise, and which will bear fruit in greater refinement of the daily life of Canada. Can we not teach them the beauty of common sights, and add an interest to their lives which costs nothing and has perhaps been overlooked because it is so cheap, forgetting that the great necessities of life are the commonest and cheapest, and that our great Creator forever appeals to us through his visible universe, although it is only the seeing eye that can find Him there. T. M. M.

## Educational Opinion.

### THE STUDY OF HISTORY.

IN the present extended discussion of our public schools and the methods of instruction pursued in them, it is a matter of no little surprise to notice a particularly violent attack on the study of history. This subject of all others has been picked upon as the one to discard. It should receive our attention before popular feeling compels a withdrawal; and I conjecture that we shall discover the cause of its public disfavour in the methods of its teaching, rather than in any inherent fault.

There is entirely too much of the "stuff-the-head" system in our schools to-day. When I say this, I am far from taking the extreme ground that all but two or three subjects should be dropped from the course, and principals and teachers should bare their arms and work themselves into a copious perspiration in a vain endeavour to beat every insignificant detail of these few into dazed and aching heads. Such a system of storing the mind is no better than presenting a young couple with a multitude of cooking-

stoves and kitchen-tables, and expecting them to live in comfort with these alone. It is clearly a mistake to suppose that a superfluity of the indispensable can compensate for a deficiency of that which is merely useful and desirable.

No, there are not too many subjects taught, but they are taught in such a listless, tiresome way, that the mind, instead of being stimulated and strengthened, is continually lulled to sleep as by the monotonous tick-tick of the kitchen clock. The principle of all true teaching is to incite to self-help and to inward push. If you want a boy to work for you with pleasure and effect, just pretend 'tis a jolly pastime and you'll have your wish. A boy will labour from cock-crow till sundown if you let him follow his own bent, or skillfully lead him, all unconscious of your selfish aim, to toil at the digging of your cellar or the building of your wall. Children must be taken just as they are; they resent and repel officious intermeddling, but gladly follow a leader of their own choosing, or one who possesses tact enough to lead them to forget that he is not so chosen, and proves worthy of their trust and able for their guidance.

The necessity for such a mode of teaching is particularly great in imparting historical knowledge. Gain a good will and quicken the fancy of a class, and you can count upon their constant energy and encouraging progress. Learners should never be allowed to form the impression that history is a collection of facts as interesting as cobble-stones, and not nearly so useful. They should early be taught to consider that it is the biography of the human race, of which each of them, with all his power of thought, and will, and noble aspirations, is a kind of miniature compressed into a single individual. Inasmuch as history speaks of beings in everyway like himself, he may be said to be reading the narrative of his life, as it may or may not turn out to be, according to the fidelity with which he imitates the historical examples whose characters and achievements he admires.

I have had the wish, as I have no doubt all of my readers have likewise had, that after death we might be permitted to revisit the scenes of our present life, and see how our posterity may have prospered and what new secrets man may have wrung from that reticent (strange exception to her sex!) dame, Old Mother Earth. I am convinced that this desire to know the future is something better than idle curiosity, at least in those who evince a worthiness of the future by their appreciation and study of the present and past. The anxiety we feel to hear the first thing a new day has to tell us ought to be preceded by a knowledge of the occurrences of the previous days, for the law of cause and effect has established such a natural and dependent order of things, that

nothing can be of the best service to us unless it be known and considered in all its various relations.

What is true of individuals and days is true of the race and centuries. A hundred years ago people envied us our standpoint in time, and justly, too. A hundred years hence (the standpoint we covet) people will repeat the self-same wish as we and those before us have cherished. 'Tis the old story over and over of the dog snatching at the bone in the mouth of his reflection in the spring. We never seem to realize our advantage over the men of "ye olden time," but are constantly bowed down in envious contemplation of the more favoured scions of that wished-for future. Why envy them? 'Tis simply envying those who will covet the same boon as we ourselves—a knowledge of the future, which is the unkuowable.

Though we cannot gratify the desire to know what is before us, we may indulge in a like and not inferior pleasure in what time has already divulged. The people of the Eighteenth Century envied us of the Nineteenth, so why should we not remember to strive daily to appreciate this coveted boon and draw comfort from it?

If this thought and others of a like nature and object were made clear to the comprehension of pupils in a spirited and intelligible manner, and they were permitted to express whatever thoughts they may have given rise to in them, I know we would not need to bewail any longer a lack of interest on their part.

And now their interest being thus aroused, it remains to consider how they may be best made to profit by it. This object can be most effectually accomplished, I think, by habituating the children to become so engrossed in the history of particular periods that they quite lose their identity in them, for the time being, and then, like Rip Van Winkle, awake to a renewed and joyful interest in their own day.

I am perfectly aware that the topical, disjointed manner in which our school histories are arranged prevents their adaptation to such a method of instruction as the one proposed. They should in no way differ in arrangement from those which we older people read, but only in a greater simplicity of style adapted to their inferior comprehension. Goldsmith's graceful histories are excellent examples of the kind I have in mind. These and as many others like them as can be got should be read together in class, taking up period by period, and encouraging the utmost freedom of expression and interrogation compatible with good discipline and good breeding. For it is clear that by confining the attention to one period at a time we can best catch the spirit of an age and by eliciting an expression of thought and a statement of difficulties the use of language is improved and habits of reflection are confirmed.

It needs no further argument upon my part to show how the permanent habits of thought acquired by such wholesome training will enable pupils to become more and more adept, first, in distinguishing the signs of the times, second, in comprehending the significance of these as factors in the great national questions which they, as citizens, will be called upon to solve, and, third, in discovering how they can best apply their influence and exertions for the furtherance of the general and their personal welfare. It is enough simply to indicate the importance of the *practical* study of history and how his study may be made so. Supplement this by a thorough study of political economy and social science, adopting similar methods and objects, and will it be too much to say that the chances for amicable and sound solutions to the vexed questions of our day and their day may be greatly increased?—*George H. Lepper in The Current.*

#### MENTAL ECONOMY.

WE take the following from *The Week*:—

SIR,—Suppose a man of means, desirous to fill some large stables with a grand class of horses, instructs his buyer to obtain a number of fine Clyde colts or Suffolk Punches; that these animals are then thoroughly trained to heavy draught, and work on thus for a few years, vacancies being always supplied by the same class of animals; but that at the end of this period he suddenly changes round and orders all these animals to be at once put in training for the track and taught to trot. Would not such a man receive from every candid friend a warning that his first method of setting to work was not the one likely to make him successful in carrying out his new idea? May we not venture to assume that this would be admitted by the generality of reasonable men? Yet, something closely analogous to this takes place in any national system of education whenever any important radical change is made in the method of examining for certificates for teaching; something analogous has happened within the last few years, in this and other countries, owing to the constant changes that have taken place. As an instance, one might point to the subject of composition, the marks awarded to which were till quite lately so utterly inconsiderable that the classes of mind calculated to excel in it was not attracted to the examination, and there was every discouragement to a man's practising himself in it to any appreciable extent. At times, perhaps, some seventy-five marks or so might be obtained for it, while three or four times as many would go to reward the successful candidate in analysis or parsing, or some kindred subject. The change came; the subject in question was seen to be one of primary importance, both as a practical art and also as

a test and developer of mental power. In fact nothing but a sort of semi-natural prejudice could have so long supported the older view of things, for we all knew just as well, when boys of ten years old, that the thing stood as now recognised, as we do to-day. At the present time, therefore, when so many novel expedients, bad and good, are being proposed as the remedy for a confessedly bad state of things, we require a few fundamental canons by which to judge whether a certain subject should be excluded from the ordinary curriculum or be included in it, as needful for all; if included, the rank it ought to take, and whether some plan proposed be feasible or not: the mere creation of a college of preceptors, however great and good the results, will not necessarily make us either more scientific or more commonsense in our ideas on training youth, but is just as likely to concentrate and stereotype present notions. We have the science of political economy, to teach the laws regulating the development and distribution of material wealth; but while the most valuable riches of a country are its intellectual and moral great ones, the noble and heroic among its men and women—what have we done towards the far higher science of mental economy, or towards reducing educational systems to anything like system? We have not yet decided what subjects belong to technical training, and what to the education of the citizen as such, to the education, that is, of all alike; at least we have not done this on any settled principle, or definite ground; we have not noticed the effect of piling on one compulsory subject after another haphazard; we have not decided what is the highest type of mind the examiner can test, or the tutor prepare for examination, or rather we *have decided this*—we decide it every time we arrange the marks for an examination, only, having done it in a thoughtless, slovenly fashion, we are almost certain to have done it wrong. There is a very simple experiment which any examiner can make in a few minutes, and the results of which, if made public, would throw a flood of light on educational matters. Take any set of papers that have been used in an examination, note the proportion of marks awardable to what may be called "non-cram" questions, those not to be answered through mere routine grinding. Change the proportion of those marks. If one-third of the whole were awardable to these higher class questions, try what change would be effected in the *order of the candidates* by giving two-thirds of the marks to non-routine questions. It is quite possible that the highest man will no longer head the list, quite probable that some who have been rejected will take good place, and some who have taken good places will not pass. How so, you ask? In the one case, you will be rewarding principally mere routine know-

ledge, which has of course a high value, yet can be over-valued; in the other case you will be paying for the development of originality, teaching power, thought. We have heard of examiners re-reading the papers of rejected candidates to discover originality in them, and so excuse a revision of class list. If ever such an expedient were resorted to it would be proof positive of a radical and terrible defect in the rules for awarding the marks. Originality should be dealt with from the beginning, and be a factor of success with all, from the highest to the lowest, not to be taken into consideration only after a man has been rejected, or to finally re-adjust the class-list. As to the experiment I have pointed out, anyone can make it either by conducting an examination for himself, or else by supposing a certain set of questions put, and marks allottable and allotted, and then changing the scale: he will find that a man may be deficient in the musical gift, or in the appreciation of form, the manipulation of figures, the rapid acquirement of the events of history or the roots of words, and yet be a great man even intellectually, nay in some cases a great teacher in the very subject in which he passes a poor examination—though not perfect, he may be greater than many passing as more perfect; that many compulsory subjects lower the standard of intellectual power. If we inquire how this is:—it is because these are not the central faculties of the mind, but technical; and although the central faculties act only in combination with some or other of the subordinate ones, yet we do not need all the minor faculties in any high degree in order that the intellectual faculties should work or work grandly: while a man may be highly endowed with all the technical faculties, and lacking the central ones, he may be unable to turn them to any high purpose. Such a man passes high in the examinations, and then disappoints his friends and tutors. Almost all the marks for spelling, writing, and geography, most of those for history, parsing, and arithmetic are given for mere routine work, or for semi-cram; and as we demand a higher and yet a higher standard in one compulsory subject after another, hoping thus to raise our standard, we are in reality lowering it all the while, because each one tends to exclude from the list men who may otherwise be the more highly gifted—tends to exclude teaching power from the school-room, and originality and power of thought everywhere. If education be the development of the mind, our marking must correspond with its organization; the subordinate faculties must not be allowed to rank as primary. We require most assuredly and urgently a science of mental economy; its nomenclature might approximate more or less to that of present metaphysics, even of phrenology, but should at all events include the field of morals as of intellect, while worked in combination with physical development. The art which tends to put the right man in the right place, is of inestimable value.

J. C.

ALGOMA, Aug., 1886.



TORONTO:

THURSDAY, SEPTEMBER 9, 1886.

## THE VALUE OF HIGHER DEGREES.

It is refreshing to those who desire to see the degrees which in "our universities" are called "higher degrees" conferred with some regard to real qualification, to hear the *New England Journal of Education*—a journal which represents, in no slight degree, the thought of the United States on educational matters—sounding a note of warning against the evil of indiscriminate and senseless granting of university honours. It is to the United States that we have become accustomed to look for the extreme of unreasonableness in this respect. And if there we can see signs of a desire for change, those signs are worthy of attention.

Without looking beyond our Canadian universities, we can find abundant reason why complaint should so often have been made that, while we aim at giving to our primary degree of B.A. an ever-increasing value, we still limit our degree of M.A. to a status which means so little. The complaint is justifiable. The degree of B.A. represents a certain standard of qualification, a certain number of years of college work. The degree of M.A. represents, generally, merely the lapse of a certain length of time, the writing of an indifferent thesis, and the payment of a fee. The effect of this is two fold: it lowers the value of the M.A. degree in the minds of university men themselves, and it deceives the public. That the former is the case is apparent from the fact that many of the best of our university graduates refuse the degree on the ground that they value too highly the possession of their lower degree to exchange it for one which to them means so little, and which can be obtained so easily. And that the latter must be the case, is obvious from the consideration that in university matters the public must take their views from the university itself.

The same complaint has been made with regard to other higher degrees on this continent, and with equal reason. The possession of the degree of LL.D. does not always prove a safe guarantee of eminence in legal attainments, nor does a similar motive always obtain in the conferring of doctorate degrees in medicine and theology. Such being the case, it cannot be expected that these degrees can

long retain the relative importance even yet attached to them. The writing of an indifferent thesis, and the payment of a fee, should not be the sole qualifications. Even the system of Oxford and Cambridge is, as recently pointed out by a contemporary, more sensible: they accept the fee, and dispense with the thesis.

Surely this is a matter deserving of the best consideration of our university educators, at a time when university reform in all directions is receiving so much attention. It is true that a step has been taken in the substitution of honorary degrees for degrees granted according to the plan above objected to—an evidence of a recognition of the necessity for change. The success of this departure will depend upon the judgment exercised in the conferring of the honours. And something might be learned from the suggestion embodied in the closing sentence of the article in the *Journal of Education*: "If some of our larger colleges would establish a rule rigidly demanding evidence of real merit as a condition for honorary degrees, the evil complained of would be abolished." This might be as true in Canada as in the country whose thought, in educational matters, the *Journal* to a certain extent represents.

## "OVERDOING INSTRUCTION."

THE following sentences which have found their way from one exchange to another, are well worth reproducing at any time:—

"The whole educational question appears to be resolved into this formulation: Plain simple instruction in the elementary principles. No cramming. No fancy studies. Short lessons, well prepared. If any genius be developed, seeking higher methods and wider culture, he will, with the weapons provided, make his way. But it is folly to overdo instruction with the average mind, which, like some Virginia land, described by John Randolph, is poor by nature and ruined by cultivation."

We are far too apt to educate our children as if they were, one and all, geniuses of the first rank. A Pascal, who on attaining manhood, had traversed, in his own words, "the whole circle of the Sciences; a Macaulay, who read Greek at five years of age; a John Stuart Mill, who at twenty-five was, he tells us, he supposed, in general knowledge, about the same number of years in advance of the

average man of his own age; a DeQuincey, who at sixteen, his schoolmaster said, could harangue an Athenian audience in Greek better than he (the speaker) could in English—for such men perhaps our modern school *curricula* of studies are admirably fitted. The unfortunate oversight is that we fail to recognize the fact that these *curricula* do not produce Pascals, Macaulays, John Stuart Mills, or DeQuinceys. Nor will they ever do so. A poet is born, not made; so is a genius. The sooner we awake to the fact that we are "overdoing instruction with the average mind" the better for the average mind. Do men gather grapes of thistles? would be a pertinent question to ask in this case. Modern educators seem to think they can, to judge from the beautiful hot-houses they erect for this species of plant, and from the rigorous system of "fencing" to which they subject them. Gardeners know well enough that upon some plants fastidious care is altogether thrown away: that for such, common air, sunshine, soil, and moisture, are the best possible surroundings; but that upon others, the most delicate handling is absolutely necessary. The fact that our schools contain more of the former than the latter of the latter—more thistles than vines, is the fact that we have to learn.

But, perhaps, some will ask, what shall we say then, are the vines to suffer because the majority are thistles? Of course that is a delicate question to answer. Perhaps the world would gain more by the cultivation of a lot of good thistles than it would lose by the loss of a few vines. But are there not vineyards? Let the tender plants be reared there.

## OUR EXCHANGES.

*St. Nicholas* for September is, as usual, replete with many excellent illustrations. The frontispiece especially will delight every one. It is an engraving of Sir Edwin Landseer's "The Connoisseurs."

IN the *Atlantic Monthly* for September one of the first things the reader will turn to is a story by Rebecca Harding Davis, entitled "Mademoiselle Joan," a pretty sketch of Canadian life, with a touch of the supernatural in it. Mr. Bradford Torrey, the author of "Birds in the Bush," has a paper on the "Confessions of a Bird's-Nest Hunter," written in his usual genial manner. Besides these articles there is a clever study, "The Saloon in Politics," which shows what a factor the saloon is in American political questions, written by George Frederic Parsons. Mr. Frank Gaylord Cook contributes a paper on "The Law's Partiality to Married Women;" Philip Gilbert Ham-

erton a second paper in his series "French and English," in which he compares the two nations; Thomas Wentworth Higginson writes on the late E. P. Whipple. For the student of history Mr. Fisk's article, "The Paper Money Craze of 1786," will prove agreeable reading; while for the novel-reader there are the instalments of Bishop's "Golden Justice," of Miss Murfree's "In the Clouds," and, last but not least, of Henry James's story, "The Princess Casamassima," now drawing to a climax. There is also some poetry, together with the usual departments of brief criticism, and the Contributors' Club.

In *The Popular Science Monthly* for September Mr. W. D. Le Sueur offers a forcible and occasionally severe reply to ex-President Noah Porter's attack on evolution, which was made in the lecture on that subject read by him before the Nineteenth Century Club in May last. Near the end of the paper we find a fairly clear presentment, which is worthy of attention as coming from one of the most ardent advocates of the doctrine of evolution, of the attitude which that doctrine occupies toward religion and theology. Mr. Dudley's "Woods and their Destructive Fungi," which is concluded, is a paper of the greatest practical value, and embodies many facts that are new, the knowledge of which is largely the fruit of the author's original researches. Professor Benedict's "Some Outlines from the History of Education" is the beginning of a paper which is intended to correlate education with psychology. In the present number the author shows how adapted to their national conditions and characteristics were the educational systems of the Chinese, Indians, Arabians and Persians. In "Hereditary Diseases and Race-Culture," Dr. George J. Preston enforces the importance of greater caution and attention to those points in the arrangement of marriages. Dr. G. Archie Stockwell gives a most entertaining and lively account, with some dramatic features, of "Indian Medicine," which is at the same time a study in anthropology. Mr. Joseph F. James writes of "The Antarctic Ocean," of what is known and what it would be desirable to learn about it. M. Alfred Fouillée, a learned and thoughtful French author, gives an analysis of "The Nature of Pleasure and Pain." A second paper is given of Mr. Sully's studies of "Genius and Precocity." Parker Gillmore's "In the Lion Country" is a sketch descriptive of game, hunting, and other features of South African life. Mr. Francis H. Baker's "Evolution in Architecture," a highly interesting article, is an ingenious effort to show how architectural forms have grown out of one another, and have been modified in adaptation to the needs of the people adopting them. Another instructive paper is Dr. Andrew Wilson's "Some Economics of Nature," and shows how various elements of the world's life work into one another. A portrait and biographical sketch are given of Frederick Ward Putnam, the Curator of the Peabody Museum of American Archaeology and Ethnology, and Permanent Secretary of the American Association, the writer of the sketch being Dr. Charles C. Abbott, the keen-eyed and sociable author of "Upland and Meadow." The Editor's Table discusses the practicability of teaching morals apart from theological dogma in the public schools, and asks for the recognition, by scientific bodies, of psychology as a special science.

#### REVIEWS AND NOTICES OF BOOKS.

*Pedagogical Biography. No. 1. Schools of the Jesuits, Aachen, Metz, Rome, Ratisch, Milton.* By P. H. Quick. Syracuse, N. Y.: C. W. Bardeen, publisher. 1886.

*Pedagogical Biography. No. 2. John Amos Comenius.* By R. H. Quick. Syracuse, N. Y.: C. W. Bardeen, publisher. 1886.

These are two little cheap paper-covered books in the "School Bulletin Publications," intended to provide literature suitable to teachers.

The name of the author—R. H. Quick, and the subjects with which he deals, should make these works popular.

*English Literature for University and Departmental Examinations.* 1887. Thomson's "Seasons." Southey's "Life of Nelson." Toronto: Warwick & Sons.

There is a growing demand for un-annotated editions. (We have been so deluged of late years with annotated editions that we are sorely in need of the new word un-annotated). This Messrs. Warwick & Sons have recognized, with the result that they have published a very neat and cheap edition of those portions of the "Seasons" and of the "Life of Nelson" set for examination. The reasons which led to this form of publication are set forth in the preface which we reproduce in full:—

The prescribed portion of "Southey's Life of Nelson" is the last three chapters, and in order to give the student an intelligent grasp of it, a summary of the previous biography of the "Great Naval Hero" precedes the text. A chronological table of collateral historical events is given, which will be found useful and instructive. Provision is made for pencilling on blank pages bound in at the end of the book and a wide marginal space on each page. The book is offered at twenty-five cents, a price within the range of every scholar.

This little work has already, we find, had an extensive sale, and it highly deserves it.

*Physical Culture, a First Book of Drill, Calisthenics and Gymnastics for Canadian Schools,* by E. B. Houghton. Authorized for Ontario. Toronto: Warwick & Sons.

Our leading article on "Physical Culture" in last week's issue will prove how favourable we are to the use of text-books of this description in our schools, and Messrs. Warwick & Sons' edition we especially recommend. "Physical Culture" is a book designed to meet the modern requirements of the school and is the production of a gentleman who has had large practical experience in teaching drill, calisthenics and gymnastics. It is not made up of clippings from various sources, but is original in its details with the exception of the chapters on "drill," which are taken from the "Queen's Regulations," the phraseology being altered to suit "pupils" instead of "soldiers." The book is divided into Part I. for boys and Part II. for girls, each department giving instruction in drill, calisthenics and gymnastics, arranged to suit the sex, and based on scientific principles.

It goes into practical details: teaches boys how to march, dress, turn, salute, and all the movements necessary for "drill." It explains well and minutely the use of dumb bells, clubs, ropes, and many exercises well calculated to develop all the muscles of the body. This, we think, is the chief merit of the book. The author fully grasps the

important fact, known not only to medical men but also to athletes, that it is above all things necessary to exercise all the muscles or all the different sets of muscles in turn if we would not only arrive at any degree of physical culture, but would even avoid distortion. For this reason it is that those who endeavour to excel in some particular feat—rowing, for example, or running, or bicycling, find it necessary to add to the development of the muscles needed for this, the development of the whole muscular system of the body: they, each and all, run, walk, attend the gymnasium, use clubs and dumb-bells, etc. The writer also sees the advantage of exercise in the open air. Upon this too much stress cannot be laid. How much do soldiers owe their generally enviable physique to the five o'clock parade. We might here make a suggestion which we think has not heretofore been thought of: It is well known that speaking in the open air is a wonderfully beneficial exercise. Many have noticed the effect of this upon the lungs of army officers. To this John Wesley, who made a habit of preaching in the open air daily early in the morning, traced his haleness in old age. It may seem an out-of-the-way proposal, but we think that if each of the members of a company of boys or girls at drill were to take his or her turn at giving the words of command, if nothing else, much benefit would be derived—especially if they were taught to expand the lungs, throw back the shoulders, and speak from the chest. A master who conscientiously drilled his boys with this book as a guide would, we venture unhesitatingly to assert, produce a company of muscular and well trained lads fit for all kinds of arduous labour, and capable of learning more book-work in a given time than any class who had had no such advantages. The portion of the book devoted to girls also merits high praise.

GINN & CO., Boston, announce the speedy publication of "Cynewulf's Phoenix, Vol. IV., in the Library of Anglo-Saxon Poetry," edited by Prof. W. S. Currell, Ph. D., of Hampden-Sidney College, Va. It was expected that this work would be issued in August, but as it has become possible to have the Phoenix collated with the original manuscript at Exeter, the publication will be delayed until fall, to allow time for this work. The value of the present edition will, of course, be considerably enhanced. The text will be accompanied by foot-notes with readings of the MS. and of various editors. Facing the Anglo-Saxon text will be found the Latin original. The introduction will give a brief discussion of the Phoenix myth, an abstract of the present aspect of the Cynewulf question, its bearing upon the authorship of the poem, and a bibliographical outline. Critical, textual and explanatory notes will be added, and a complete glossarial index.

#### BOOKS RECEIVED.

*Calendar of the University of Victoria College, Cobourg.* Session 1886-7.

*The Twelfth Annual Calendar of the Brantford Young Ladies' College.* Session, 1886-7.

*The Combined Historical and Geographical Reader.* The History of Scotland in the times of Bruce and Mary. The Geography of Scotland and Geographical terms. London and Edinburgh. William Blackwood & Sons. 177 pp. 1s.

Practical Art.

ELEMENTARY DRAWING.

XV.

IN resuming these papers on elementary drawing it is the writer's intention to bring to a close as soon as possible the present series on object drawing, and to commence a new series on some other branch of the work.

On a somewhat hasty perusal of what has been said on the subject it is painfully evident that much that would be useful to the teacher has been omitted, but at the same time it is a gratification to know that this omission is in the illustration of the application of principles, and not in the statement of the principles themselves. With one or two exceptions all the principles governing the representation of the form of objects have been stated and explained, and in order to make these articles as complete as is practicable it is necessary only to add what principles have not been stated and to make a few general remarks concerning them.

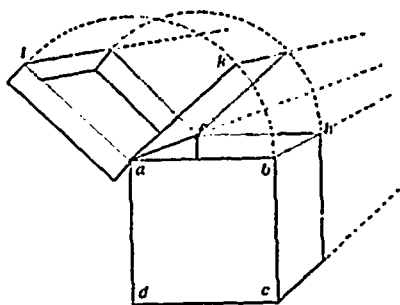


Fig. 29.

My last paper treated of the representation of vertical planes neither parallel with nor perpendicular to the direction of the spectator's gaze. More will be said on this particular point, but it will be better first to treat of planes which form an angle other than one 90° with the ground. Very many interesting objects such as houses, box lids, desks, and books partly open, introduce such planes and can be used with advantage in a class.

In order to represent the open lid of a box, or in fact any other inclined plane, it is well to treat it as the planes in fig. 28 have been treated, that is to suppose it to be contained by, or form part of, a suitable cylinder. In fig. 29  $a b c d$  is the end of a box whose lid is hinged on its left hand upper edge. It is manifest that if the lid be rotated upon its hinges it will generate a cylinder having its axis in the line  $a b$ ; that the near end of this cylinder will be represented by a circle with  $a$  as a centre, and  $a b$  as a radius; and that its far end will be represented by a circle with  $f$  as a centre and  $f h$  as a radius. The corners of the lid will occupy positions somewhere in the circumferences of these circles as  $k$  or  $l$ . Select a point in one circle and through it draw a line in the di-

rection of the vanishing point of the axis of the cylinder and the edges of the box that are parallel to it, till it meets the other circle and join these points with the centres of the respective circles.

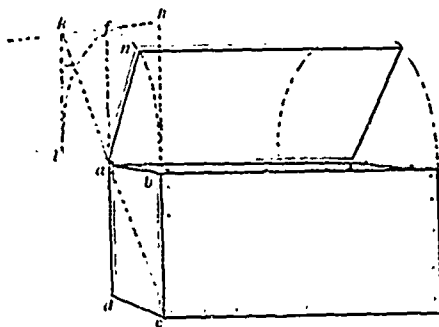


Fig. 30.

When the front or back of the box faces the spectator the circles traced by the ends of the lid appear to be foreshortened horizontally and must be represented by ellipses. In order to find the exact width of these ellipses the following plan may be adopted. Suppose  $a b c d$ , fig. 30, to be an end of a box having square ends. The lid is equal in width to  $a b$  or  $a d$ , therefore the square containing the circle traced by the lid will be four times as large as the end  $a b c d$ . From  $c$  draw a line through  $a$ . Make  $b h$  equal to  $b d$ . From  $h$  draw a line towards the vanishing point of  $b a$  and  $c d$ , to cut  $c a$  produced, in  $k$ . Produce  $d a$  to meet  $h k$  in  $f$ . Produce  $b a$  towards its vanishing point to meet a vertical line from  $k$ , in  $l$ . Then  $a$  and  $f$  will be the extremities of the transverse axis of the ellipse and  $b$  and  $l$  the extremities of the conjugate axis. The other end of the cylinder generated by the lid in this case must be found in a similar way. When both ellipses are drawn, select a point in one, as  $n$ , and draw a horizontal line to meet the other, and join these points with the centres of the circles represented by the ellipses. When the ends of the box are not square, the height and width of the ellipses can be obtained only by the judgment which comes of experience. No definite rule can be given. After considerable practice the eye will instantly detect any error in the proportions, and when it possesses this power its judgment may be implicitly relied on.

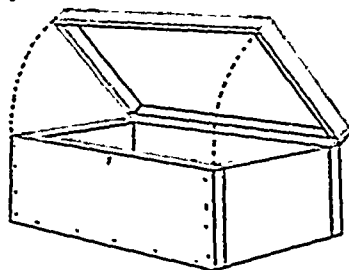


Fig. 31.

In fig. 31 a box is shown with one corner towards the spectator. In this case two vanishing points must be used, one on each

side, and the parallel horizontal lines made to converge in them. The position of the front edge of the lid is determined in the same way as illustrated in fig. 30.

Houses, and buildings of all kinds will supply an almost unlimited field from which to select interesting subjects for a drawing lesson. They may be resolved into their elements that is into the geometric forms which enter into their composition, and these may be drawn in their proper relative positions. The house in fig. 32 is seen to be composed of a parallelopiped and a triangular prism. In order to find the position of the vertical angles of the triangles forming the ends of the prism, draw the diagonals of the proper sides of the parallelopiped and from the points where they intersect draw vertical

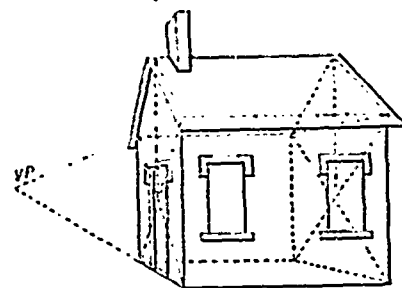


Fig. 32.

lines of the necessary height. Doors, windows, and other details may be added at pleasure.

ARTHUR J. READING.

Mathematics.

TO DETERMINE THE GREATEST COMMON DIVISOR OF NUMBERS BY INSPECTION.

IN nearly all of our schools there has been necessary for scholars, in determining the Greatest Common Measure, or Divisor of Numbers, to make the work a written exercise. By the application of the following tests, or principles, it can either wholly, or at least in great part, be made a mental operation.

It is required to find the greatest common divisor of 12 and 18. The G. C. M. of any two numbers cannot be greater than the smaller number. Therefore the G. C. M. of these numbers cannot be greater than 12. It is likewise evident that it cannot be greater than the difference between the two. Therefore it cannot be greater than 6; and as each number can be divided by 6, it is their G. C. M.

If to the above numbers any other number be attached, as, for instance, 15, and the G. C. M. of the three numbers be desired, use the following tests, or principles: The G.C.M. of several numbers can not be greater than the number which is least in value. It likewise can not be greater (this is the important test) than the difference between the two which are the nearest to each other in value.

Therefore the G.C.M. of 12, 15 and 18 can not be greater than three, and as each number can be divided by 3, it is their G.C.M.

If to 12, 15 and 18 the number 20 be attached, and the G.C.M. of the four numbers be desired, it is evident from the application of the foregoing test that it cannot be *greater* than two, but as one of the numbers is an odd number, and as an *odd* number cannot be divided by an *even* number, the G.C.M. of these numbers must be 1.

It can be readily seen that the application of the above principles becomes easier in proportion to the *number* of numbers whose G.C.M. is to be determined, hence their *great value*.

It is required to determine the G.C.M. of 740, 333, 296. It cannot be greater than 37, which is the difference between 333 and 296. Thirty-seven is a prime number, hence the fact is determined that if these numbers have a common divisor it must be either 37 or 1, and as each number can be divided by 37, it is their G.C.M. It is obvious that the same reasoning could be applied to any *other prime* number which is in a similar manner found. Any quantity of examples in illustration of the above principles might be cited, but it is believed that enough have been given to show their value.

The use to which the G.C.M. is commonly applied is in the reduction of difficult fractions to their lowest terms. This operation should not be made, as is sometimes the case, a *trial process*. The thought in this, as well as in any other mathematical operation, should go *DIRECTLY* to the point desired.

It is required to reduce  $\frac{323}{357}$  to its lowest terms. The difference between the two terms is 34. Thirty-four is an even number, and can not be a divisor of 323, which is an odd number. Therefore the G.C.M. *must* be a factor or divisor of 34, which is an odd number, and such factor is 17. Seventeen is a *prime* number; therefore the fact is now determined that 17, and only 17, must be the divisor of the terms, or else they are prime to each other.  $\frac{323}{357}$  divided by 17 equals 19. *At this point* the scholar should be taught that it is *unnecessary* to divide 357 to determine the other term of the reduced fraction, for this term will be the sum of 19 and 2, which is 21. The reason should here be given that the sum of the quotients arising from the division of *all* the parts of a number by the same divisor is the same as a quotient arising from a division of the entire number.

It is required to reduce to lowest terms  $\frac{529}{667}$ .  $\frac{667}{529}$  equals 138. Exclude from 138 the factor 6, and the factor 23 remains. Twenty-three is a prime number; 529 divided by 23 equals 23. The remaining term divided by 23 must contain it 23 plus 6 times, or otherwise 29 times.

It may be asked why should the factor six be expunged from 138. As one term is odd, and in this particular fraction *both* of the terms are odd, the factor two *must* be expunged. By the application of a well-known test the factor 3, which is contained in 138, is not a factor of 529, and as 138 can be divided by both 2 and 3, it can be divided by their product, 6.

It is required to reduce to lowest terms  $\frac{649}{1357}$ .  $\frac{1357}{649}$  equals 708, which contains the factors 4 and 3, and these are not contained in 649. Therefore, exclude from 708 the factor 12, and the factor 59 remains, which is a prime number, 649 divided by 59 equals 11. Fifty-nine *must* be contained in 1357 twelve more times, or 23 times. The

reduced fraction is  $\frac{11}{23}$ . It is required to reduce to lowest terms *any* fraction, one of whose terms is an odd number and the other an even number; as, for instance,  $\frac{96}{147}$ . Exclude from the term which is an even number the *highest* power of two, which is one of its factors, for such power is not a factor of any odd number. In the above instance it can thus be clearly seen that the G.C.M. can not exceed 3. The *great* advantage gained from the methods must be apparent to any teacher.

The knowledge of the G.C.M. can be applied to the solution of *many* classes of problems, which arithmeticians, so far as the writer has observed, have solved by means of lengthy processes of analytical induction. When the G.C.M. is applied to such problems the solutions, in *many* cases, can not only be made mental, but nearly instantaneous operations by the boy or girl of average ability. — *H. A. Jones in the School Journal.*

## Methods and Illustrations

### MILITARY DRILL AS A MEANS OF PHYSICAL TRAINING FOR BOYS.\*

LET us proceed now to an examination of the physical effects of drill upon the pliant structures of the immature and growing organism. When a boy is holding his eight-pound musket at either carry or right-shoulder arms—which are the two commonest orders—his frame experiences, in a minor degree, and subject to the military requirement of holding himself straight, what he does when he carries a pail of water. The weight is either suspended by the arm muscles from the scapula, or rests directly over that bone. Thence it is transferred, through the trapezius and the two rhomboidic muscles, to the spinous processes, and through the serratus magnus and the eight or ten upper ribs, to the bodies of the dorsal vertebrae. To sustain the pressure, the shoulder rises and the muscles mentioned are called into active play; so that there is a tendency, proportional to the length and magnitude of the pressure, and greatest in the immature organism, toward spinal asymmetry.

To obviate the evil tendency of the drill here referred to, the military instructor in Boston has very thoughtfully modified his manual by introducing a new order, "left-shoulder arms," which the captains are instructed to substitute, occasionally, for the ordinary marching order of right-shoulder arms. But waiving the difficulty inherent in all unilateral gymnastics of accurately dividing the exercise, which always comes easier to the right side than to the left, between the two halves of the body, the fact remains, that the manual, even in its mitigated form, gives much more work to the right than to the left side. For instance:

\* NOTE.—This paper of Dr. Withington's is interesting when read in connexion with the new work on "Physical Culture" authorized by the Minister of Education and reviewed on page 517 of this issue.

of sixteen manœuvres in the manual without command, five are carry and three right-shoulder arms; while, of the remaining eight, four are executed on the right side of the body. Of course, with lighter guns the evil would be lessened; but when we hear of curvatures resulting from lace-winding and croquet-playing, which are well recognized facts, we are forced to believe that any habitual exercise designed for body-building, especially in growing boys, should be performed with both sides simultaneously.

Authorities on physical culture all unite in condemning those forms of exercise which are of one-sided character. For this reason, nearly twenty years ago, Ramstein and Hulley, the authors of one of the leading English works on physical training, while strongly advocating school gymnastics for boys and girls, as strongly condemned military drill. In order to be sure that the development of the two sides of the body shall go on equally, the work of the two halves should be carried on simultaneously; only so can absolute equality be assured. Thus, while fencing is considered a proper professional acquirement for army officers, it is not held to be a proper developmental exercise. Indeed, that it may not do positive harm, by producing physical asymmetry, the British officers are required to practice it with both hands.

There is a common idea that the benefit of an exercise is commensurate with the fatigue which it induces; whereas the true theory of exercise is through the action of all the principal groups of muscles, accompanied, as such action necessarily is, by a quickening of breathing and of circulation (but not necessarily or properly by a feeling of exhaustion), to promote an acceleration in the processes of destruction and renovation of the tissues of the body. For the health and strength of the organism is proportionated to the rapidity of these changes; or, in other words, to the newness of the structures of the body.

In marching with a gun at shoulder or at carry arms, certain groups of muscles, occupied in sustaining the weight, are kept in a condition of tension for a long time, so that they may become very tired; yet, from the constancy of the tension, the muscles cannot receive their required nourishment through the blood-vessels until the strain is removed; or, in other words, till the exercise is over. With chest weights and rowing, on the other hand, there is a constant and rapid alternation of contraction and relaxation, the former being accompanied by the explosive decomposition of material, and the latter by the reception of new material to replace it. Even with dumb bells and Indian clubs, under which the muscles do not experience rapid succession of activity and complete repose, the brief duration of the exercise,

followed by the laying down of the weight, affords the needed opportunity for tissue-removal. The execution of the manual of arms does afford exercise to various groups of muscles; but the carrying of the guns in march or parade, in which the greater part of the drill-hour is spent, tetanizes and exhausts the muscles, rather than exercises them.

Military drill was never designed for the purpose of affording physical training. "The movements explained in the tactics," says Upton, "are confined, as nearly as possible, to those finding practical application in war." Now, just in proportion to the skill with which any instrument is adapted for one particular purpose, in the imperfectness of that instrument when converted to another use. It seems hardly to require argument to show that some method can be provided better adapted to securing physical development than a system which was organized with a totally different end in view. To this add the fact that military schools do not depend on manual-of-arms drill for physical development, but attach gymnasiums to the premises where students are required to practice, and others that might be cited, seem to indicate that military drill is not considered, at least by the army authorities, to constitute the best possible means of physical development.

The objections that have been urged in this paper to military drill as a sole means of physical culture for growing boys may be summarized as, (1) the anatomical objection, based upon the fact of the obliquity of the superincumbent weight with reference to the spinal axis; (2) the physiological objection, based on the production of a tension of the muscles, rather than of that constant alternation of activity and repose which best conduces to their nutrition; (3) what may be called the philosophical objection, based on a lack of adaptation in design for the end to which the system has become converted.

It is beyond the limits of this paper to consider what substitute for military drill might profitably be made in the public schools. I would only suggest that the system of physical training which for many years has given good results in the schools of Germany seems to offer, at best, one solution of the problem. The point that military drill is better than no stated exercise, even if granted, would not meet the objections of this paper. Neither is it germane to the subject to say, as has been said, that drill is less objectionable than a gymnasium without any supervision. It would be equally fair to introduce into the comparison an armory, supplied, one might say, with loaded guns, where boys were allowed to play about at helter-skelter without system or instruction. Perhaps there would be little to choose in the usefulness, or even the harmfulness, of the two.

No; the drill should fairly be compared, in its design and practical application of physical training, in its adaptability to all the scholars of public-school age, and, above all, in its freedom from harmful effects, with the best attainable methods of modern scientific physical culture. Weighed in this balance, the drill, I believe, will be found wanting.—*C. F. Withington, M.D., in the New England Journal of Education.*

#### WHAT IS THE BEST METHOD OF TEACHING CHILDREN TO READ?

IN answering this question, it is to be said, at the outset, that most of the process of learning to read consists of two parts—first, seeing words; and second, either hearing or thinking the sounds for which the written words stand. This direct appeal to the eye, and direct or remote appeal to the ear, constitute the real process of teaching reading, whatever theory may lie back of one's practice. An alphabetic language is a representation of a spoken language; it is not a new language, to be learned after the method of learning the spoken language; it is rather a set of signs for the spoken language. Hence the larger part of the work to be done by the pupils while learning to read English consists in acquiring the ability to call the words at sight. Therefore I think it better to come to the substantial part of the process at the outset, and to begin to do at once what must ultimately be done before the child can read.

Now there are, of course, two ways of causing pupils to know the sounds corresponding to the words which they see. One way is to let the child see the word, and the teacher at the same time speak the word. When this has been done times enough, the sight of the form will suggest the sound: and this result is no doubt reached more quickly if the idea for which the word stands is clearly in the mind at the time of seeing and hearing.

But there are a good many words in the English language, so that this telling process must finally cease, and some other device be adopted by which the child shall be able to ascertain for himself what the sound is for which a form stands. In other words, he must learn to call new words without help; and he can never read till this new power is gained. And this ability is always exercised through the process of analysis of the written word, and hence is to be gained by the same process. But this analysis of the written form is to be accompanied by a corresponding synthesis of the spoken word, or rather of the elements of the spoken word.

Now a condition precedent to this synthesis in connection with seeing is the asso-

ciation of elements of form, that is letters, with the elements of sound, that is the individual sounds for which the individual letters are the symbols. Of course the unconscious association that is made in seeing words as wholes and calling them in the same way will ultimately develop the power to call many words; but it is a slow and tiresome process compared to the process of conscious association.

So, it seems to me, it is the best way to begin at once with the work which the pupils must ultimately perform; namely, the analysis of sound and form and the corresponding synthesis. Accordingly I would use the word method only so far as it is necessary in order to enable pupils to recognize the elements of vocal speech as such, and then go at once to the phonetic method.—*Larken Dunton, I.L.D., in The American Teacher.*

#### WRITTEN SPELLING CLASSES.

IN dealing with any topic we should be able to look "at both sides of the shield;" note and devoid its defects as well as proclaim its advantages.

"We spell as we write," hence the great necessity of writing what we spell.

"We seldom use spelling except in writing;" an added reason for writing our spelling lessons.

"We learn to *do* by doing;" so if we *write* our spelling lessons, we are "killing two birds with one stone" by learning to write at the same time.

"Time is money;" and if economy of time is desirable—and who shall question it?—no other way is likely to be popular among American boys and girls.

These are only a few of the reasons for writing the lesson that used to be passed down the line and up again, day after day. Let us hear the other side; for every shield has "another side."

"It begets careless penmen." Children do not write a dictation lesson with the care necessary to make good writers.

"It does not teach syllabication." Pronunciation and articulation are also neglected, if this method is used.

"It is inconvenient, laborious, and expensive."

"It opens an avenue of temptation to copy the lesson."

"It cannot be done with the same degree of thoroughness that an oral lesson can."

These are only some of the "side-lights" on the question, and if my methods and experience will help even one struggling teacher to grasp the benefits and avoid the difficulties of, and objections to, a written spelling lesson, this serves its purpose.—*American Teacher.*

### THE POWER OF THE TEACHER'S EYE.\*

A VARIETY of methods for swaying the action of his scholars lies open to the teacher. He must decide, on clear grounds, to what degree he may employ any of these, and to which preference should be given. Order must be maintained, and to this end obedience must, if needful, be enforced. The pressing question is, how best to secure the desired result. By looks, by words of encouragement, or by words of warning and reproof, and by appropriate punishment for breach of order, he may act upon the determination of the scholars. The teacher who would establish discipline on a sure basis must decide what is the most potent form of influence, and which ought, therefore, to be the prevailing form in use from day to day. I incline to think this may be decided clearly and finally. The use of the eye is the basis of power; only after that, in point of influence, comes the use of the voice, or of recognized signs, which may save the need for utterance; and only as a last resort, by all means to be avoided until dire necessity has arisen, punishment.

The power of the eye is the primary source of the teacher's influence. Only let the pupils feel that the eye of the teacher runs swifter to the mark than words.

### HOW TO SECURE ATTENTION.

1. MANIFEST an interest in the subject you are teaching.
2. Be clear in thoughts, and ready in expressions.
3. Speak in your natural tone, with variety and flexibility of voice.
4. Let your position before the class be usually a standing one.
5. Teach without a book as far as possible.
6. Assign subjects promiscuously, when necessary.
7. Use concrete methods of instruction when possible.
8. Vary your methods, as variety is attractive to children.
9. Determine to secure their attention at all hazards.—*Edward Brooks.*

### WHAT THE KINDERGARTEN DOES FOR LOW CLASSES.

IT reclaims very young children from constant surroundings of vice and penury, and brings them into contact with refining and educative influences. It takes them from the streets and dismal homes into wholesome places, good air, play, occupation, friendly sympathy and care.

By means of games and occupation it puts

\* From *On Teaching: Its Ends and Means.* By Henry Calderwood, LL.D., F.R.S.E. London: Macmillan & Co.

joy and discipline into young lives that otherwise have neither.

It diverts the young and plastic mind from brutal tendencies by early and constant stimulus given to the higher nature—making it less probable that the child will grow up a criminal.

By teaching early the elements of industrial education—by training of hand, eye, and the creative faculty, it makes employment natural and attractive—making it less probable that the child will grow up a pauper.—*Sub-Primary School Society, Philadelphia.*

## Educational Intelligence.

### THE QUEBEC HIGH SCHOOL.

MR. T. AINSLIE YOUNG, M.A., B.C.L., recommended by such well-known and distinguished teachers as the Bishop of Quebec, Dr. Lobley, Professor Read, and the Principal of King's College, Windsor, has been appointed to the rectorship of the school. Professor Read says that "Mr. Young's capacity as a teacher and master of boys is great, and that whatever can be done by great ability, intense energy and unswerving faithfulness, he will do it. His interest in boys is never failing, and he himself a thorough gentleman." The Board has also succeeded in securing the services of Mr. J. Porteous Arnold, F.E.I.S., of Edinburgh University, who has been engaged for several years in the high school of Dundee, Scotland, and who comes to Quebec recommended in the highest terms by many distinguished educationists and scholars. Mr. Arnold has evidently obtained a high standing in his profession. Professor Brown, of Scotland, speaks of him in these terms: "Mr. Arnold has had a thorough training for his profession, and he was a student at the University of Edinburgh. Since then he has had much experience in high class schools, and he holds the diploma of Fellow of the Educational Institute of Scotland, which is conferred on those who attain a prominent place in the profession. For several years past he has been head master of one of the departments of one of the most important high schools in Scotland, and at the University Local Examinations his pupils have always taken a high place."—*Quebec Morning Chronicle.*

MR. J. McMASTER has been appointed third assistant teacher of the Oshawa High School at a salary of \$650.

MISS HELEN AGNEW, Mr. H. McDougall, and Miss Anne Jaffray have been appointed to fill vacancies on the staff of teachers of the Winnipeg Public School Board.

THE St. Johns, P.Q., High School opened on the first with the following staff: Mr. R. J. Hewton, principal; Miss A. Allen, assistant principal; Miss C. Nicolls, junior department.

SOME changes have taken place in the staff of school teachers at Beamsville. Mr. D. Hicks, B.A., recently of Parkhill, is to be head master of the high school; Mr. Hunter, of Port Huron, assistant; Mr. Caverhill, head master model school; Mr. Cruickshank remains till the end of the year.

MRS. NEWCOME, successor to Miss Colcord as Superintendent of the Kindergarten system in the city schools, has arrived at Hamilton from St. Louis. She was waited upon by Messrs. Hill and Burton, Chairmen of the Internal and Finance Committees of the Board of Education. She entered upon her duties on Wednesday morning, when the public schools opened.

THE vacancies on the staff of the Galt Public Schools caused through two of the teachers appointed a few weeks ago withdrawing their applications, have been filled by the appointment of Miss L. F. Brogden, of Galt, and Miss J. McLennan, of Stratford. Mr. W. E. Lyall, formerly teacher at Sheffield, who purposes attending the collegiate institute, has been employed as assistant to the principal during the model school term.

At the annual meeting of the Society for Promoting the employment of Women, held in London, England, a few weeks ago, it was stated that among the branches of work in which women have proved themselves capable are house decoration, glass-staining, designing wall papers, cretonnes, etc., wood engraving, wood carving, lithography, plan drawing, type-writing, book-keeping, hair-dressing and printing. The chairman, Lord Fortescue, bore testimony to the diligence, promptitude and business capacity shown by the women employed in the public offices.

WE learn from the annual calendar of the Brantford Young Ladies' College that a new feature will be added to the musical department in the introduction of the violin. The director is a skilled instructor and performer on this instrument, and has had large experience in using it in orchestral work and in concert with the organ and piano. The use of the violin has come, of late years, into great favour with ladies, and it is possible that many a lady who will never become an expert on the piano-forte may distinguish herself on the violin.

MRS. MARY EMILY DAWSON, the first lady surgeon qualified in Great Britain, was invested with the Letters Testimonial of the Irish College of Surgeons on June 5th, under the new power granted to it by its charter of 1885. This lady is wife of a gentleman who is practising as an engineer in London. She obtained her education at the London School of Medicine for Women, and produced all the evidences of study required by the London College of Surgeons, besides her diploma of L. K. Q. C. P. I. (License of the King and Queen's College of Physicians, Ireland).

CHANGES in the staffs of the teachers of the Parkhill High, Public, and Separate Schools have been made: In the High School, Mr. May will take the place of Mr. Parkinson as first assistant; Mr. Rogers succeeds Mr. Hicks as second assistant, as we noticed last week. At the last examination Mr. Rogers was awarded a First C. Non-Professional Certificate. In the public school staff of teachers there is to be no change from last term. At the Ward School, Miss Hamilton will have the Second Book class, and Miss Bertha Shoults the First Book class. In the Separate School Mrs. Gough is to be succeeded by Miss Charlotte Eckardt, who received her early school training in the Parkhill Public School.

ADVICES received from England state that the Act regarding medical education which passed the

Imperial Parliament previous to the dissolution removes the grievances about which the medical profession in Ontario have been making loud complaints for some years. The trouble was that licentiates of any of the colleges in Great Britain or Ireland could come to Ontario and compel the Ontario college to register them, thus giving them the right to practice without passing an examination here. For many years after Confederation it was thought that in this as in other educational matters, Canadians had supreme control, but in a case which came before the courts, in which an English licentiate compelled the Ontario College to register him, it was shown that English legislation as affecting the colonies had not been repealed. This repeal the medical profession in Ontario have been persistently seeking for several years, and their efforts have now been crowned with success. After June first of next year it will be necessary for English, as well as all other licentiates, to pass the examinations required by the Ontario College of Physicians, before they can practice in this province. The same Act also contains provisions which will tend to raise the standard of the profession in England.

#### OFFERS MADE TO VICTORIA COLLEGE.

THE quadrennial meeting of the Regents of Victoria College was held on the 31st ult., when the progress made financially and in regard to students was discussed. The whole question as to the future of the college and all information which had been gathered as to the proposed removal were considered and sent to the conference without comment. An overture from the Mayor and Board of Trade of Hamilton was received, offering twenty-five acres of land in case the college was taken to that city, and stating that a bonus of \$75,000 or \$80,000 could be raised, as well as a large amount by private subscription. An offer of twenty acres of land was also received from the town of Cobourg. A sub-committee reported that the principal Methodist residents of Toronto had been visited, and asked what they would be willing to contribute if the University were taken to that city. The replies obtained were not considered encouraging. The report on the condition of the college was encouraging, the graduating class of last year being double that of the year before, and the matriculants being also double.

#### Correspondence.

##### THE ONTARIO EDUCATIONAL SOCIETY.

[In order to be able to discuss entirely unprejudicedly the merits of the proposed Educational Society for Ontario, a communication was sent to Mr. Boyle to the effect that the columns of the EDUCATIONAL WEEKLY would be open to him if he wished to contribute a succinct and detailed account of the proposed Teachers' Union, together with an exhibition of the arguments to be adduced in its behalf. We still adhere to the opinion we have already expressed upon this subject. The following is Mr. Boyle's reply:—E.D.]

To the Editor of the EDUCATIONAL WEEKLY.

SIR,—In reply to your request for a statement of the aims and objects of a teachers' union, I would say, first, to protect teachers against th-

elves; second to protect them from the rapacity and ignorance of many boards of trustees; third, to correct abuses that have unsensibly grown up with our system; fourth to elevate the social and intellectual status of the profession; and fifth, to secure some measure of control, directly or indirectly, over professional examinations, selection and authorization of text-books, and generally, any other matter affecting the interests of teachers.

The Ontario Educational Society purposes to overcome the difficulties that fall under the first head by compiling a registrar of every school in the Province, particulars of which will be available for the use of all members purposing to apply for a situation, regarding whose past and present history they may be totally ignorant. As matters now stand, those in want of places have to "go it blind," when replying to an advertisement, and a frequent result is the round teacher "getting into a square hole"—or *vice versa*—with consequent dissatisfaction to trustees as well as to teacher followed by the inevitable change at the end of the year, if not sooner.

These particulars will include kind, size, ventilation and fittings of school-house; similarity of grounds, outhouses and water supply; facilities for getting good board and lodging; whether the last teacher was a man or a woman; if possible, why the teacher left; whether changes are frequent in the section or municipality; the salary paid; the salary that ought to be paid proportionately to those of neighbouring sections; the nationality and religion of the population; the amount of interest taken in education; average attendance; standing of the school; nearest post-office, railway station, church, and bookstore, and such other details as may prove of interest to an applicant. The beneficial possibilities here involved, all admit.

Again, and under the same head, it is well known that not a few of "our craft" are contemptible enough to underbid and undermine others who have no intention of removing from their schools. Now, sir, speaking for myself only, I do not hesitate to say that persons of this sort deserve to be effectually "sat upon." As a rule they are not of much account as teachers anyhow, and a very little logic should convince trustees that such is the case. I hope, therefore, that the O. E. S., will undertake to teach persons of this class better manners.

I trust also that, in the second place, it will support teachers whose parents happen to live in the section, against the parsimoniousness of trustees who, for that reason, insist upon "hiring" a pedagogue at a less rate than would be levied for one who had to "pay for board." If there is to be any advantage in such a case, it ought to be in favour of the teacher, and not of the section.

The O. E. S., too, will always be prepared to stand up in defence of the teacher who may be the victim of any ignorant (but wealthy, and therefore, it may be influential) ratepayer who plays the bully to the great discomfort of all concerned, except the bully himself.

In course of time I am hopeful that our society will agitate for a modicum of scholarship as a necessary qualification for school trusteeship. Instances are known of trustees who cannot write their own names!

Under the head of abuses, one of the worst is the "permit" system, for it is a system, by means of which hundreds of qualified teachers are unable to gain situations at remunerative salaries. I am informed that in one of the oldest and wealthiest counties in the province, there are not fewer than thirty situations held by persons who "keep school" by the grace of the inspector and the Minister of Education!

At least seven hundred qualified teachers now unable to get schools might readily find places if permits were granted only as a matter of sheer necessity.

The O. E. S. also wishes to discourage the "tender" method of applying for schools. According to this mutual cut throat plan, each offers to teach at what is thought to be the salary that will secure the place, and trustees naturally enough take advantage of the numerous offers by engaging (they call it "hiring") the lowest bidder.

These are some of the immediate, practical advantages, likely to be secured by the O. E. S. if loyally supported by the fraternity. Nothing utopian or chimerical is aimed at, neither is it the intention to use any power the society may possess for the purpose of coercing or intimidating teachers or trustees. Indeed, those who have given the subject most thought, believe that the latter will, in course of time, come to regard the society as a real blessing, for, besides enabling only the right kind of teachers to apply for suitable schools, it will aim at purging the profession of unworthy members.

So far as I know the sentiments of those most active in support of the O. E. S., it will be conducted on a strictly honourable professional basis, to which every teacher, male and female, may subscribe.

Yours truly,

DAVID BOYLE,

August 25th.

353 Yonge St., Toronto.

#### Examination Papers.

##### BOARD OF EDUCATION, MANITOBA

(Protestant Section.)

Examination of Teachers, July 1886.

COMPOSITION—SECOND CLASS.

Examiner—D. J. GOGGIN.

Time—2½ hours.

1. Write out in your own words the following sketch of the Lady of the Lake:

The maiden paused, as if again  
She thought to catch the distant strain.  
With head upraised and look intent,  
And eye and ear attentive bent,  
And locks flung back, and lips apart  
Like monument of Grecian art.  
In listening mood she seemed to stand,  
The guardian maid of the strand.

A chieftain's daughter seemed the maid,  
Her satin snood, her silken plaid,  
Her golden brooch, such birth betrayed.  
And seldom was a snood amid  
Such wild luxuriant ringlets hid,  
Whose glossy black to shame might bring  
The plumage of the raven's wing:  
And seldom o'er a breast so fair  
Mantled a plaid with modest care,  
And never brooch the folds combined  
Above a heart more good and kind.

2. Improve the following sentences :

(a) Though he was obstinate and unprincipled, yet he could not face an angered father in spite of his effrontery.

(b) The lesson intended to be taught by these manoeuvres will be lost, if the plan of operation is laid down too definitely before hand, and the affair degenerates into a mere review.

(c) The swimmers did not, as was to be expected, lack a numerous or enthusiastic audience.

(d) He performed his ablutions and immediately proceeded to partake of some refreshments.

(e) Believing that his name and honour were at stake, and in the hope of satisfying his creditors, he determined on selling all his estates, and, as soon as this was done, to quit the country.

3. Write sentences in which the following groups of synonyms are properly used : Answer, reply ; aware, conscious ; transpire, occur ; persuade, convince.

4. Write an essay on one, and only one, of the following subjects :

(a) Is Manhood Suffrage desirable?

(b) The relative advantage of life in the country and in large cities.

(c) The influence of commerce on civilization.

N.B. —One of these subjects must be attempted.

COMPOSITION—THIRD CLASS.

Examiner—D. J. GOGGIN.

Time—two hours and a half.

1. In your own words describe with suitable detail the following picture of an old-fashioned country house.

THE HOUSE IN THE MEADOW.

It stands in a sunny meadow,  
The house, so mossy and brown,  
With its cumbersome old stone chimneys,  
And the gray roof sloping down.

The trees fold their green arms around it—  
The trees a century old—  
And the winds go chanting through them,  
And the sunbeams drop their gold.

The cowslips spring in the marshes,  
The roses bloom on the hill,  
And beside the brook in the pasture,  
The herds go feeding at will.

—Louise Chandler Moulton.

WANTED for Chesley School District a teacher holding a Third Class certificate. Address, stating age, experience and salary required, JOHN BROWN, Rounthwaite.

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3. Improve the following sentences : They called into requisition the services of a physician.

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4. Write sentences in which the following groups of synonyms are properly used : bring, fetch ; find, discover ; evidence, testimony ; truth, veracity.

5. Change to the direct form of speech :

My uncle Toby, with a deep sigh, said that he wished he was asleep. The corporal replied that his honour was too much concerned.

6. Write in your own words the Parable of the Prodigal Son.

GRAMMAR—THIRD CLASS.

Examiners—REV. PROF. HART, M.A., B.D.,  
REV. CANON MATHESON, B.D.

Time—three hours.

1. Name the parts of speech essential to every sentence, giving in each case the reason for your answer.

Name also the modifying and the connecting parts of speech, and state in your own words, what special duty each of these parts of speech performs in the sentence.

2. Construct sentences to show that each of the following may be used with the value of different parts of speech. home, wrong, to see the place, where he was.

3. Turn into the possessive form :

The shoes of men and women.  
The hats of gentlemen and ladies.  
For the sake of experience.

Write out the Possessive Singular feminine of mayor, abbot, nephew, fox.

4. Explain in your own words, Case, Voice and Mood, and by reference to examples, show that your explanation is correct.

5. Give examples of the Past Imperfect (or Progressive) the Past Perfect, the Present Perfect, the Future Perfect of any verb.

6. State and illustrate the distinction between Simple, Compound, and Complex sentences.

7. (a) Write a complex sentence having cheese, house or books for subject, the subject being modified by an adjective clause, and the predicate by an adverbial clause. (b) Change this into a compound sentence.

8. Define a Preposition. Apply your definition to beyond in "But to shut was beyond his power."

9. Analyse :

He opened ; but to shut was beyond his power ; wide open the gates remained, so wide that a bannered army on the march with ensigns unfurled and with out-stretching flanks might pass through, together with a loose array of horses and chariots, and from the opening, as from the mouth of a furnace, issued forth an overflowing tide of smoke and red flame.

10. Parse the words in italics.

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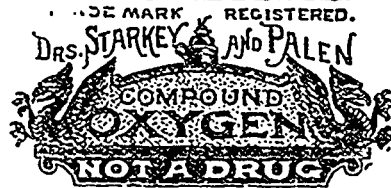
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