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Edited by T. ARNOLD HAULTAIN, M.A.

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JAMES V. WRIGHT, General Manager.

TORONTO, MARCH 10, 1887.

ON a subject which we in Canada have of late been generally discussing—the want of sympathy between teachers and people, the *Ohio Educational Monthly* says:—

“The fact that teachers and people are further apart now than they once were, has been felt and admitted for some time, by many of the older school men of the State. And Mr. Hinsdale is undoubtedly correct in saying that this is one reason for the great difficulty experienced in securing needed school legislation. There was a time within the memory of teachers still living, when influential men not directly engaged in teaching took a deep interest in everything pertaining to the teacher's work. Many of them became active members of teachers' associations and took a leading part in the proceedings. Dr. William Bowen, for example, then a resident of Massillon, later a member of the Akron Board of Education, aided in the organization of the Ohio Teachers' Association, and was one of its original members, though not a teacher; and as long as he lived he took an active interest in everything pertaining to teachers and teaching. In the 'Transactions' of the Western Literary Institute and College of Professional Teachers, a society

which existed fifty years ago, with headquarters at Cincinnati, appear a good many such names as those of Rev. Alexander Campbell, Dr. Lyman Beecher, Bishop Purcell and Bishop Aydelotte, who not only delivered addresses before the society but also took an active part in its proceedings. There are only examples of what was the general condition of things in Ohio even less than fifty years ago.

“But all that has been changed. The change has come 'without observation,' in connection with the changes in the right direction. There has been great progress in the teaching profession in Ohio during the last half century, more especially in the last two or three decades, and teachers as a class have come to feel more self-reliant, more independent. This is good in the main, but teachers are to blame in that, through this growing feeling of self-reliance and independence, they have isolated themselves, and have not sufficiently sought the sympathy and co-operation of the people. The holding of the meetings of the State Association at Put-in-Bay, Niagara and Chautauqua, has undoubtedly had its part in widening the breach. These meetings have been beyond the reach of the people, the secular press not even taking pains to tell the people what took place at them. Suspicion and jealousy have in some measure taken the place of interest and sympathy, in the minds of a large element of community.

“It is surely the part of wisdom to cultivate friendly relations with the people—to invite and secure their sympathy and interest in all that pertains to the welfare of the schools and the advancement of wise and sound education. To this end, may it not be wise to introduce into the exercises of all our institutes and associations more of the popular element? It can hardly be expected that the masses will take much interest in the philosophy of methods or the mere technicalities of schoolmastery. These are important to the teacher; but there is a wide range of topics of common interest to both teachers

and people, which may well receive a larger share of attention. The popular course of evening lectures at the Pennsylvania teachers' institutes is an example of what may be done in this direction. If any of the brethren are moved to speak, they may now have the floor.”

THERE is an inordinate amount of trash written and printed and spoken, says *Education*, about the effect of university education upon the health of women. In nine cases out of ten, when a girl breaks down from over-exertion at twenty or twenty-five, it is because she was not properly restrained and cared for when she was in her last grammar-school and first high-school years. A girl who was never allowed to lie awake over a problem or a translation, at fourteen; one who has not been pushed ahead in her books and kept up at night for study, or play when she ought to be in bed and asleep, is not likely, other things being equal, to suffer with ill-health during her college course.

If the people who discuss the detrimental influence of mental application upon the health of women, would spend their energies in devising means for the preservation of the health, of young girls, they would be in much more rational and philanthropic business. There is usually a feverish element of competition in a child's life at the beginning of the high-school term which is very much more hurtful to her than all the studying which even the most ambitious sophomore or senior in college is likely to do. The higher education of women is no longer an experiment. It is believed by those who see farthest into the relations of things to be vital and necessary to the growing needs of society. That which remains to be done, is the spreading of the gospel of good health for the young girl. There is little danger of college-work proving hurtful to the young woman who has been taught in her preparatory days to sleep and eat and exercise and dress with a reasonable amount of hygienic care.

Contemporary Thought.

AN official resolution is published in India on the subject of infant marriages and enforced widowhood among the Hindoos—a question which has been much discussed by the native press. The resolution states that the opinions of local governments having been asked, all deprecate any official action; and it adds that the Viceroy agrees that reform in this matter must be left to the people themselves.

It was said fifty years ago that whenever this new German political departure occurred it would be attended by a truly great revival of national literature. Gervinus, of Heidelberg celebrity, had predicted this in one of his soothsaying utterances. Many people besides him were convinced that the generation which achieved German Unity must also be a generation of great writers and great poets. The prophecy, if destined to be true at all, has not, alas! been fulfilled hitherto. Undoubtedly, the average writing in this country is better than it was 50 years ago; historical books have lost their terrors for an ordinary reader; even the fruits of scientific research are made palatable, and to a certain extent digestible, in lectures and essays that are found upon everybody's table. In this vast field, as in the case of art, talent is by no means scarce or the public supercilious. Never were the works of popular writers more extensively printed, bought, or read; never were names more universally honoured than among the dead, those of Geibel and V. A. Scheffel; among the living, that of Gustav Freytag. Each novel in prose or verse by Paul Heyse, each story by Spielhagen, is expected and greeted as an event in town and country through the entire length and breadth of Germany. There is a rush to the theatre whenever Ernst von Wildenbruch places on the stage one of his vigorous, though as yet humorless and insufficiently pointed, dramas. Several reviews, like Rodenberg's *Deutsche Rundschau* and Paul Lindau's *Nord und Süd*, have a large sale, and they rarely publish anything that would not pass muster, for style or thought, in French and English periodicals of the same class. And yet a feeling of impatience sits brooding over the nation, as if greater and more successful efforts were wanted and expected of its writers. Some say that the genius of literary production has been dwarfed by the one-sided modern expression of greatness in this country; or quenched by the fury of party contests; or flurried by the uncertainty of coming European events; or deflected from its legitimate and God-given path by pessimism, to the great expounder of which, Schopenhauer, a statue is about to be erected in Frankfurt. All, or any, or none, of these explanations may be right. But the fact remains.—*George von Bunsen, in Murray's Magazine.*

It is then of vital consequence to us that our short weekly hour shall be used in the most efficient manner, that we shall put into it as much as it is capable of holding, and so gain the utmost result which can be got from it, in making sure that the children, so far as they are capable, shall be well instructed Christians, with a knowledge of distinctive

Church doctrine and its practical bearing on their duties, and on their daily lives. Now we know what satisfactory progress can be made in the too rare instances where children come to us who have had some careful teaching at home from a good mother, or from a school where a good teacher has had the opportunity of influencing them in these matters. Such a pupil receives your lessons with so much greater interest and capacity. He already knows much of the Scriptural precepts, characters and narratives, and some of the great lessons to be learned from them can be the more readily enforced. Now it seems worth our while to enquire whether we cannot secure in the large majority of the children this greater preparedness, which is now only found in the few, to enter upon your special instructions, and in this way to render the weekly lessons still more prolific of good results than it is now; and whether you cannot see that a greater amount of such teaching is provided for those who, from whatever cause, are neither gathered into the Sunday Schools nor taught at home. Let us then bear in mind the fact that the great majority of the children we are specially interested in our Sunday Schools, are also pupils in public schools. These schools, like our Sunday Schools, are everywhere, and are teaching the same children. So far as schooling goes therefore, you and the public school teachers are operating on the same minds. Is it not desirable to ascertain whether the public school teacher and the Sunday School teacher can, without going beyond their respective spheres, work in harmony, and how far this co-operation now exists? It is hardly necessary for us to discuss at this time any question involving an alteration of the general school system of the Province. There are other times and places where such matters may be properly and usefully debated. My object is rather to assist, as far as may be, in directing attention to what is possible now, and under the present conditions. It may be as well, whatever ideal any one may prefer and may advocate, not to let slip the opportunities for good that lie at our hands. We need not wait for changes or improvements which may or may not be attainable before doing what we can at the present moment. To those who desire fundamental changes in the public school system, I may say, "Your object will not be promoted by neglecting the means at present available." The more intimate one's practical acquaintance with what is now attainable, the more intelligently would one be able to propose something better.—*From an Essay by Alex. Marling, Esq., read before the Toronto Church Sunday School Association, in the Chapel of Holy Trinity Church, Toronto, Feb. 10th, 1877, and contributed to the "Evangelical Churchman."*

In the discussion of the education estimates useful reference might have been made to the introductory part, just published, of a special report on industrial and high art education in the United States. . . . The editor of the volume, Mr. Isaac Edwards Clarke, uses the copious evidence of the backwardness of art instruction in the States as an excuse for American industrial shortcomings. He pleads for an educational reform as the sole way of redeeming American manufactures and life from their present reproach. . . . Art education is to be encouraged in the United States, as elsewhere, for

higher reasons than an escape from an imaginary thralldom to alien manufactures. Drawing, as the reporter on public school portfolios at Philadelphia observes, is a most efficient instrument of school education. It furnishes a discipline at once of mind, eye, and hand. Mr. Clarke is far from forgetting the nobler arguments for the promotion of art education, though his protectionist learning occasionally leads him astray. He appends to his compilation of statistics a series of eloquent essays, in which he inculcates the need of it as an indispensable element of general culture. He reminds his countrymen of the peculiar danger attending the neglect of any part of the apparatus of civilization in a republic based on universal suffrage, with an actual ingredient of two million illiterate voters out of ten. He upbraids them with the utter disproportion between American and British expenditure on art education during the past thirty years. The result, he confesses, is that America now occupies the place at the bottom of the list of prosperous communities without taste which, a generation ago, belonged to England. England, from the rag-end of the list, has mounted aloft, so that French public men complain of a victorious invasion of French markets by English art wares. Mr. Clarke, very rightly, will not concede that American artistic inferiority comes from absence of indigenous capacity. He can point to a multitude of proofs of mental ingenuity in proof of the improbability that the defect is due to natural incompetence. The gross neglect by the State in America, on which he dwells, of appliances such as are employed in Great Britain for the development of artistic aptitude offers itself to him as ground for hope of a remedy. American education, he shows, has hitherto given no chance to native artistic instincts. With proper help he sees no cause for doubt that at least as rapid progress might be made on his side of the Atlantic as on this in investing the admirable raw American material and technical workmanship with the grace they hitherto have wanted. . . . He knows that his countrymen, the rich even more than the poor, remain the dupes of much false art in painting, decoration, and furniture. But he sees signs of better things. . . . A school of architects is now arising which has executed several noble works, and may be expected in time to transform the face of American cities. Mr. Clarke enumerates a score of buildings, selected by leading American architects at the invitation of a professional organ, which deserve to be admired for other qualities than mere prodigality of outlay and costliness of material. . . . Mr. Clarke notices with pleasure the growth, too, of a brick school of architecture, originated by a genius named Telfit, who died young. He very wisely singles out for encomium, as well as capitols and cathedral-like churches, embodiments of a sense of grandeur and nobility for less exalted purposes. He has fallen deeply in love with a portal to a dry-goods store, and a shop-front in Bedford street, Boston. We wish sincerely that English shop-builders would furnish Londoners with as good an apology for enthusiasm. American architects will earn as warm gratitude from Englishmen as from American educationists if they condescend to discover a style of shop architecture with something of an idea it.—*The Times (London, Eng.).*

Notes and Comments.

It may be carried too far, but it is a good principle to have all answers in sentences. If, however, an unnatural sentence has to be framed in answer, it is a mistake. Common sense should always reign in school work, whatever rules are established.—*American Teacher*.

THE school board of Minnedosa is making an earnest effort to keep its excellent school in efficient operation by levying and collecting the taxes for school purposes, the council having abandoned its functions. The powers necessary to accomplish this being given the board by law, there is every prospect of its being successful.

RECITATION has three objects: first, to see if the lesson assigned has been conscientiously studied; second, to exercise the student in presenting a statement, clear, concise, and methodical, of the knowledge he has acquired; third, to uproot any erroneous principles which may have lodged in his mind, and implant true ones in their stead.—*American Teacher*.

INSPECTOR SEATH visited the Whitby Collegiate Institute recently, and inspected the different departments. The new Physical apparatus was carefully examined and approved of. The inspection was made with a view to ascertaining the teaching of the different members of the staff, so each teacher was given a fair share of Mr. Seath's attention. His report to the Board of Education will fully set forth his opinions in regard to the above.

THE University of Pennsylvania has issued an announcement from the Department of Philosophy, which is of more than ordinary interest. Comparative study in the Indo-European languages, the cuneiform inscriptions and the Hebrew form a part of the course for the second term of the current school year. Probably the most interesting of the several courses is that in American linguistics and archaeology, a department of study that has a distinguished Philadelphian as its leading exponent. There can be no question that the philological research as directed by the Department of Philosophy is university work in its highest sense, and it should find ready and earnest students among the learned professions.

THE St. Catharines Collegiate Institute has had in operation for some months, a very fine gymnasium, supplied with the usual accessories of trapeze, horizontal bars, ladders, ropes, boxing gloves, dumb bells, swinging clubs, etc. The apartment is spacious and well lighted and ventilated, and is probably one of the best of its kind attached to any collegiate institute in the country. This school is also supplied with a number of valuable books which will be added to

from time to time, until a good library is established. Not very long ago a reading-room was fitted up, and is supplied with newspapers and magazines. This is also a valuable accessory to students, and is much appreciated.—*St. Catharines Journal*.

WE should never forget that we send children to school not so much to learn facts as to learn how to learn them. Of course, there are some central facts which they must learn; as that three times three is nine, and that a b spells ab. But the principal business of education is to start boy and girl with aptitude, desire, and strength to follow, each in the right way, the line of life which he or she may have to follow. It is somewhat risky to give them "eleven weeks of botany," "eleven weeks of entomology," "eleven weeks of geology," "Spanish in six lessons," "Italian in six lessons," "French in six lessons," if we mean that they shall gain in young life the persistent power of enduring to the end to which only does victory come.—*E. E. Hale*.

WE take the following from the report of the Inspector of Schools for Northumberland and Durham. It contains some excellent hints:—"It will be noticed that about 67 per cent. of our schools are in the hands of third class teachers, many of them mere tyros, yet in their teens. In no other business in life is there so gross a manifestation of folly. To allow inexperienced third class teachers *carte blanche* in the matter of selecting any school in a county as the base of experiment, is not only an injustice to the teacher and the taught, but is manifestly suicidal to the best interests of the body politic. Under existing regulations, were school expenses proportionate to the value of rateable property in a school section, a section rated reasonably high should enjoy the advantages to be derived from tutorial experience and ability, and thus assist in more widely securing the permanency and respectability of the teaching profession. However, I am not insensible to the progress at present made in our public schools. I cannot better testify to the efforts of the teachers of Northumberland to keep pace with what is now commonly regarded as intellectual progress, than by calling attention to the very large number of candidates that year after year are prepared for the High School Entrance Examination. There are no fewer than 247 applications for admission at the forthcoming July examinations. Two hundred candidates passed these examinations last year, and from the notably strict examination of the work of candidates in Northumberland County, this shows efficient work. In attaching undue importance to sundry innovations in order to make our system of education subservient to the demands of an advancing civilization, there seems to be a proneness to ignore the creation of intellectual power. No sane

scientist ever taught that schools create intelligence. Equality of intelligence like equality of wealth is merely chimerical. Were natural aptitude of pupils to receive instruction the same, the present development theory, as now very generally put into practice, would be plausibly faultless. While the model schools of the country are doing most excellent work in exemplifying methods of teaching, they can give to our young men neither aptitude to teach nor experience in dealing with mind phenomena, with which passport I regret too many by half are furnished to be profitable either to the rising generation or to trades and professions, that might be graced by men never made to teach. *No mere imitator was ever a successful teacher.* The proper function of normal and model schools should be to ascertain whether a candidate is possessed of natural aptitude to teach, and if not, in justice to the candidate and to the educational interests of the country, the plain truth should be told. There is a school population in this county of 8,108. There were entered on the registers, 7,983. There were 125 children between the age of 9 and 13 who did not attend any school. There were 2,150 children between the age of 7 and 13 who did not attend school 110 days, as required by law, that is to say 27 per cent. of the children of this county registered as attending school at an age when children can best learn, had no earthly chance of obtaining the mere rudiments of an English education. I would that people were impressed with this important truth: unless a child gets the ground-work of an education before it reaches its twelfth year, the chance of attaining intellectual proficiency is a blank. This is the rule and not the exception. . . . I have received from the clerks of the several townships a statement, which I append, showing the assessed valuation of each section, the number of children of school age, and the number of mills on the dollar cost for the support of each school. To this I would call the especial attention of the Reeves of each municipality, in order, if possible, to effect an adjustment satisfactory to those who complain of inequality of taxation in the several school sections. From the remarks of the High School Inspectors, I am pleased to notice the excellent work done by our high schools in this county. I feel confident you will regard it a pleasure to do all in your power to render these colleges of the people as efficient as possible. In conclusion, I would earnestly and most respectfully ask that your honourable body individually take into careful consideration some points touched upon in this report, and as representative friends of education attach to them the measure of importance that the merits of each may demand. I am, gentlemen, your obedient servant, E. SCARLETT."

Literature and Science.

THE FUTURE IS BETTER THAN THE PAST.

NOR where long-passed ages sleep,
Seek we Eden's golden trees ;
In the future folded up
Are its mystic harmonies.

All before us lies the way,
Give the past unto the wind ;
All before us is the day,
Night and darkness are behind.

Eden, with its angels hold,
Love and flowers and coolest sea,
Is not ancient story told
But a glowing prophecy.

—E. J. C.

THE NEWSPAPER OF TO-DAY.

NEWSPAPERS, the philosopher declares, are already the scourge of the human race. People get fascinated by newspapers ; they can read nothing but newspapers ; no printed book not full of the latest news, the latest gossip, the latest comment on the latest gossip has a chance of attention.

Each *daily* brings its petty dust
Our soon-choked souls to fill,

Mr. Arnold might have said with perfect truth. But the dust may be more or less grimy, may fly in bigger or smaller particles, may have a few grains of gold in it, or may merely be rich in the germs of every kind of pestilence. An American journalist who defends his native press in the January number of *Time* (probably his native press will not thank him) suggests to us that England has still something to be grateful for. Our daily dust might be still more infinitely impalpable, more rich in germs, more all-pervading, more grimy, than it actually is. The American dust, according to the American pressman, whom we do not accept as an authority, is as finely powdered and, to our mind, it is as disagreeable, as any dust in the world. At home we have only the infinitely little, the speeches of infinitesimal members of Parliament, the "disclaimers" of advertising notorieties, the details about actresses' raiment, the interviews with fast women and fasting men. In America matters yet more minute occupy the press. The pressmen regard their paper "as the University man regards the 'Alma Mater,' or as the British sailor regards the Union Jack. And how does this devotion declare itself? Why the children of this Alma Mater, the brood of *Acta Diurna*, "are unscrupulous, ravenous detectives in their search for all that may interest the public." In England a newspaper-man may still be a man-of-letters, and need not be a reporter. A reporter may still be an honest person of sense and

discretion, not "an unscrupulous, ravening detective." But, according to American ideas, "all persons connected with the literary portion of a newspaper are reporters." We sincerely trust and believe that this statement of the anonymous journalist does not represent American ideas correctly. In America, as in England or France, there must be hundreds of writers in newspapers who would no more make copy out of facts that come to their private knowledge, than they would defraud their laundresses. But the recent affair of Mr. Lowell and Mr. Hawthorne shows what this theory that all journalists are reporters might lead to if it were really held by all concerned.

"To satisfy the craving for speed is the object of the journalist's ambition," says the writer in *Time*. What an ambition! It is not wit, not wisdom, not humour, not clear thought and balanced ideas, that the journalist is ambitious of supplying. "To satisfy the craving for speed" suffices him. And what becomes of style in the hurly-burly? Nay, what becomes of grammar? The American journalist unconsciously answers the question. Here is an example of his grammar when he is writing with all the leisure of a monthly magazine:—"It is in this cause that the immense number of newspapers in the United States must be accounted for." Even elementary education is not, apparently, indispensable. Here is another example:—"The employment of words capable of misconstruction, of phrases liable to be misconstrued, of involved sentences, are stringently tabooed." Apparently the employment of phrases that cannot be construed at all "are not tabooed."

If these things be "tabooed" what things are desired? Why "a talk with three physicians who were attending the late General Grant." A little conversation on cancer of the tongue is a charming "item." "The daily happenings," "the smallest occurrences of everyday life"—these are printed to please a truly idiotic taste. The colour of the President's wife's gloves, and every harmless usual incident of her private life (if the word "private" still has a meaning), these things are snapped up and proclaimed on the house-top by "unscrupulous, ravening detectives."

It can hardly surely be thought that the American public at large likes this kind of thing, but the newspaper-men think so, and supply it. In England we only want this sort of garbage now and then, and not every day, and only when it is not only personal but unspeakably offensive. Moreover, the newspaper detectives here are still a small set of gutter-haunters ; it cannot even be pretended that it is necessary for all men who write to be "ravening detectives." —*The Saturday Review*.

WORDS IN THE ENGLISH LANGUAGE.

By actual enumeration of the words contained in the best dictionaries, it has been ascertained that 13,330 English words are of Saxon origin and 29,354 of classical origin. In consequence of the popular nature of the Teutonic words in the language, the Saxon element largely preponderates in the works of our greatest writers. The pronouns, numerals, propositions, and auxiliary verbs, the names of the elements and their changes, of the seasons, the heavenly bodies, the divisions of time, the features of natural scenery, the organs of the body, the modes of bodily action and posture, the commonest animals, the words used in earliest childhood, the ordinary terms of traffic, the constituent words in proverbs, the designation of kindred, the simpler emotions of the mind, terms of pleasantry, satire, contempt, indignation, invective, and anger are for the most part of Saxon origin. Words indicating a more advanced civilization and complex feelings, and most of the terms employed in art, science, mental and moral philosophy, are of classical origin. The English language, which is now spoken by nearly one hundred millions of the earth's inhabitants, is in its vocabulary one of the most heterogeneous that ever existed. There is, perhaps, no language so full of words, evidently derived from the most distant sources, as English. Every country of the globe seems to have brought some of its verbal manufactures to the intellectual market of England:—Latin, Greek, Hebrew, Celtic, Saxon, Danish, French, Spanish, Italian, German—nay, even Hindustani, Malay, and Chinese words are mixed together in the English dictionary.—*Ex.*

IN Germany, the microphone is now used for tracing leaks in water-pipes, the slightest trickling of the water being made distinctly audible when the apparatus is brought near it.

THE ultra-violet or heat rays of the spectrum, invisible to human eyes, appear to be plainly perceptible to the eyes of ants, according to the investigations of Dr. Forel, the distinguished Swiss entomologist.

A MEMBER of the London Astronomical Society has pointed out that the common assumption that a fragment of meteor dust no larger than a mustard seed may give the brilliancy of a first magnitude star, is erroneous. To give that brightness at a distance of 100 miles—about that at which meteors are usually seen—would require an electric lamp of 10,000 candle power. It is therefore probable that the smallest visible meteors have a surface equal to the incandescent portion of a 100-candle power electric arc, if not much greater.

Special Papers.

THE COLLEGE OF PRECEPTORS.*

LET us ask ourselves at once what are some of the evils requiring a remedy. They are unfortunately not far to seek. To begin with the conditions of our work, there is first that old complaint of low social standing. It has always been thus. It is so even in England where education holds her most honourable seat. It was so before Ascham wrote bitterly that rich men give more care to secure good trainers for their horses than tutors for their sons. Dr. Arnold, of Rugby, recommends a friend about to assume the principalship of a large school, to take orders that he may secure an undoubted social position. Why more of this? It is a matter of every day observation, but none the easier to bear that it is a common-place.

In the second place, there is that isolation of which we are so keenly conscious, to a certain extent inseparable, we are told, from our profession, as from that of the clergy. To illustrate the evil and at the same time suggest a remedy, who has yet seen a teacher in a municipal office? But why not? Again, there is a prevailing feeling of insecurity—a feeling that a teacher cannot really have a home as other men, and shared equally by the highest and lowest. I have heard a high school inspector express this anxiety as well as my own colleagues, and it is a subject on which I need not say more, for it is as painful to you as it is to me.

Add to this the galling sense of acting as machines. We feel that the intense centralization of our school system almost precludes individuality. The most trivial minutiae are fixed at the beck of the department. What shall be the year's work of most high schools of this Province is solely and altogether determined by the regulations for third class teachers' examinations. It is almost impossible to make strangers to our system believe that so absurd a state of things exists. In the last meeting of the committee on this College of Preceptors, Dr. Wilson expressed his amazement that the schoolmasters of the country should find it necessary to ask the University to set a certain piece of English literature for matriculation, as though they could not read the work on their own responsibility. He is still incredulous. No one could persuade him that our system is so hide-bound. To state the truth in plain terms would have the appearance of a fatal exaggeration. I am not expressing my opinion as to whether in the past the aggregate result has not been better. I think it has. But you all know that the situation has not been overstated.

"Be not man's masters," we are enjoined. Of a truth

"The gods are just, and of our pleasant vices
Make instruments to scourge us."

We are doubly scourged in that our isolation is very largely due to this failing, and in that we are set to serve two masters, the State in its administrative capacity and the people. Which is the worse I know not, for the former master to hew wood and draw water according to the book of arithmetic, or for the latter to make bricks without straw. In any case, *pletuntur Achivi*. Says Mr. Thring, "a man digging knee-deep in a muddy ditch, with banks so high as to shut out the landscape, in a hot sun, and a permanent swarm of flies and gnats round his head, is no unfair description of the life of many a deserving teacher."

Better than endless disquisitions are present instances. Consider this school and this town. Here is an unhappy epitome of most evils of pedagogues. On Mondays when I enter my room with my blue spectacles on, I see two pictures. The vision is still clear to me, though not so fresh as it once was, of the simplicity of the old Greek education, which with its music and gymnastic strove to train the boys to feel pleasure and pain for proper objects, making strong minds and exquisite bodies with even that poverty-stricken "curriculum." And visions I have of nobler ideals of education than theirs. And I recognize the rich result of the addition of science studied from a proper standpoint; and I think of some great schools I have seen, with all the equipments that money can supply, of their efforts to develop a love for the beautiful; to train the hand as well as the head; and of college friends who have set out full of hope and enthusiasm, to make a life-work of teaching in our Province; and when I think upon what is the actual picture that I see, which doubtless fairly represents the Province, I turn sick at heart. I reflect that seven years ago the school authorities of this town dismissed twenty-one teachers to avoid asking two to resign, giving them liberty, forsooth, to apply again. What was done here a few months ago, is too near for historical treatment. Let him that heareth understand. The people of this town have in less than two years invested \$60,000 in churches, where they spend some six hours a week. Their children they send for five hours a day to this venerable but ramshackle pile, where they are huddled together in foul air. Next to us is a room in which sit seventy-two little children. Our high school is exactly twice filled. There is but one window in the school, as far as I know, that will open from the top, and stagnant water underneath the building contributes its variety of odour. And while all this passes through my mind, I become aware of twice as many scholars

as any one can teach—if teaching means, among other things, giving individual attention to the slow as well as to the quick—sitting before me, like nothing more than so many stone-pitchers, which have crowded to be filled at one pump to the brim, in one term of five months for some teacher's examination, with a "mechanical mixture" of many things. And when I think over this mistaken view of education, that it consists in information and that it is cheap, and of the goal set up for our children as the only thing to be aimed at, I am filled with indignation and despair. In conversation lately with one of our trustees, he expressed his hope that we should succeed in disabusing the minds of the townspeople of the notion that a high school education was simply meant for teachers. The state of public opinion everywhere on this question was never better voiced. This is what the people think the aim of our secondary and higher education—1 grant of money to a high school means to them a private donation to teachers. I trust, and we all trust, to help to bring about a change, but we may surely be forgiven for wishing to live to see it.

Now for all this we are ourselves not without blame. No reproof is too severe for our apathy and torpidity. We are slow to originate, indolent in performance, and willing to see things go by default. We need some gad-fly of a Socrates, "by spurring and goading, and exhorting and reproving day after day with a pious persistency to rouse us to the performance of what our dignity requires."

Secondly, like the clergy again, we do not really know men, act with them, and give them information of our plans. If there is any more conspicuous example of what will result from this impotent policy of selfish seclusion, it is certainly our University of Toronto, which would, I firmly believe, be on a better financial footing to-day, but for this fatal mistake.

Again, we do not vindicate for teaching the dignity of a profession. And who is going to deck us with a wreath which we ourselves disclaim? Sarcastically we call it a "business," and a "business" it will continue under these conditions.

Fourthly, we are a modern instance of a house divided against itself. This is not the place to enter upon the cause of the separation and the more or less latent hostility that subsists between the University and the Department, and between the high schools and public schools. Sufficient it is to say that such an unhappy sentiment exists. Yet there is nothing more certain, as a history of education will show, than this, that any great advance in education must come from higher up. To make this possible the channels must be kept open.

* Read before the Convention of the East Victoria Teachers' Association, and published at the request of some of the members of that Association.

But the last is the greatest of all our weaknesses—a lack of true culture. It is inevitable that the daily routine of our work and our necessary severance for so large a portion of our time from intercourse with men should, sooner or later, fasten barnacles upon us. In almost all other pursuits a man may, from their very variety, keep his heart fresh and young, and stave off indefinitely the evil day of fossilization, but in our work there is only one sure resource, and that lies in a rich and generous culture, sufficient to defy time. Let us sum up all these evils in the conditions of our work, and in ourselves. They are (1) the lack of social standing; (2) isolation from our fellows; (3) a feeling of insecurity; (4) the rigidity of the educational machine (a sort of bed of Procrustes, upon which we must first stretch ourselves and then our wretched boys and girls); (5) our service of two masters; (6) our torpidity and apathy; (7) our ignorance of men; (8) our lothness to assert for teaching the dignity of a profession; (9) our division; (10) and our lack of culture.

Now is this college of preceptors a panacea for these ills? It would be the height of folly to say so.

Let us see what it cannot do. In the first place, it cannot directly elevate our sense of honour. High principles and dignified self-respect are not begotten of acts of parliament. But, after all, we are only human, and a little reflection will show that from this union will arise (in the long run) a genuine elevation in manly integrity and honourable self-respect. In 1857, on the eve of a general election, the voters of Hull were invited to a breakfast, and found thirty shillings under each of their cups. Who would dare repeat the experiment during this coming week? What has caused the immense change since the days of Bute, when an office was opened in the Treasury for bribing members of the English House of Commons, and twenty-five thousand pounds were spent in a single day? Not legislation and not the influence of Christianity, but the simple freedom of the press and the publication of parliamentary proceedings, have contributed most to the growth of this political conscience. The same elevation of sentiment will without doubt arise from our college of preceptors, but it will not be the outcome of the poor device of fines for breach of professional etiquette.

Secondly, the college of preceptors will not act as a guild and so lessen competition, nor as a Knights of Labour Association, nor as a close corporation. Any suspicion of such an object will be fatal to the whole scheme. The direct result of such a policy will be to lower the standard of efficiency in professions, and trades as well. To take an illustration from educational work, what

makes the very great difference between Canadian lectures in medical schools and universities and the same in Germany, but our system of compulsory attendance on lectures? It would seem needless to speak so strongly on this point, but you have seen in not a few places in the country the expedient proposed of demanding a heavy fee, similar to that enforced by the Law Society for entrance into the profession. One can have no sympathy with the principle. The college of preceptors will lessen competition only as it raises the dignity of the profession and creates a true perception of how serious is the work.

Nor can I think that it will secure permanency, at any rate in the lower grades. Young men will always, at whatever cost, use what is sometimes their only stepping stone, and especially as it lies in the direct line of work for most intellectual pursuits. And the young ladies will always be getting married, and the better teachers they are, the more likely is fate so to cut short their professional career. Young men who make their way through teaching to other work, as a rule, I feel confident, by their freshness and sympathy, more than make up for their want of experience. And the really efficient lifetime of a good teacher is very short. Dr. Arnold, as you remember, says no one should teach more than fourteen years.

Let us now consider what the college of preceptors may justly be expected to achieve.

The smallest benefit that I see likely to come out of it, is what has been sometimes urged as its greatest recommendation—protection to the public. This entirely depends upon the honesty and earnestness of the Association. Comparison with the Law Society and the College of Physicians and Surgeons goes not to help us. We are not here to argue whether these corporations are or are not an actual protection to the public; but it is perfectly plain that such a result is not in any sense the aim of either society. Close corporations—they exist *for themselves*: and if the case is to be different with us it will be because, having felt all along that our work is largely a missionary enterprise, we carry into this association a spirit of philanthropy which we cannot shake off.

The immediate outcome we shall find, I think, to be this: that the most advanced thought and the ripest experience of the best workmen in our ranks will make themselves more quickly felt—and here, as in the old *lan^{ts}*, there is the stuff of which Arnolds are made, if only the dry bones are allowed to live. Our present system has during my own time raised the profession to a far greater average elevation by itself than it could possibly have attained. This cannot I am sure be denied. But the modification of

it, that will result from the recent scheme, will bring into play a great amount of force which is now lost. Legislation can do much but not all. Our great hope lies in self-development.

Esprit de corps is another result we may confidently hope for. What school has ever succeeded, the masters of which, at end of the day's work, lock the doors, and go their several ways, and meet only at the opening of school next morning? What an immense drawback to the creation of that absolute necessity—a school spirit, is so simple a lack as that of a public hall, where all the school may meet at least once a day. Doctors, and sometimes lawyers, have their quarrels and petty jealousies, but, I leave it to yourselves, how substantial a thing is their sentiment of professional brotherhood along side of our faded ghost? But there is more than mere brotherhood in *esprit de corps*. There is a high sense of the dignity of the society to which the members in common belong. And this will grow among us as we come closer to each other, and hear each other's views, and benefit by the experience of our fellows, and, more than all, come to see that we belong to a great and dignified association, which performs perhaps the greatest work of the State.

There is a solidity, too, in a great association, as in a great school—a solidity and momentum altogether out of proportion to its numbers. How cautious and constrained are all the movements of little schools. How many of you remember when some act of long delayed justice on your part was like to bring down the heavens; when a whole village or town was split into hostile camps, and the foundations of society were endangered by some tempest in a school tea-pot! But it is not so with great schools. They are not concerned to know in which quarter sits the wind. Hostile criticism and petty spite beat idly on them. While true to themselves and the interests entrusted to them, there is steady, constant progress. And often, indeed, they continue to stand, after they had righteously fallen. Such too would be the character of a great body like this, and all the more so if at the start it struck its roots deep into the solid confidence of the people.

And last and more important than all imaginable fruits of such fellowship and concentration of effort will be this, that teaching will, we hope, be placed on its true footing as a science, and the greatest of sciences. It is then that the first great advance in our country will be made. On this point too much can hardly be said. With a chair in the University at our head, and the enthusiasm that is inspired by numbers and fellowship, we shall see the work grow in our hands. Books like Sully's *Psychology* and Rosencrantz's *Philosophy of Education*, are

a mile-stone in the most modern of the sciences. Unhappily, however, we know to our cost that education is not merely a science, but the most difficult of arts, an art that makes rapid inroads upon what we place beyond all price—individuality and our own development. But if the rest of my remarks go for nothing, and this college of preceptors fails of realization, I should be glad if only I could clearly and forcibly put this truth, that it is just here wherein lies a great, if not the greatest, safeguard. In wrestling with the fiend of the commouplace, whose peculiar province is the school-room, we must overcome him, or he will speedily and completely overcome us. True, our heart must be in the work. Yet, when love seems to fail, there still remains a scientific interest. And there is a greater field for genuine investigation than we might suppose. The science is really in its infancy. Every new observer may add something new, and in the confidence that he is contributing to what is the greatest factor in social progress.

Here I pause to notice what seems to be the greatest practical objection to the formation of this college. We know that the immense power of governmental control of education lies in the system of government grants, and we are told that the Government would not consent thus to surrender its control of primary and secondary education, even to the extent we ask. They do this however to a far greater extent, and with perfect safety, in higher education. And I am unable to see that with the Council of Public Instruction under the presidency, say, of the permanent deputy minister, the final control of the Minister of Education, any valid objection can be urged on this ground.

This suggests what is to my mind a fundamental necessity of the scheme. The college of preceptors must include, *in vital connection*, the whole Government system from the university to the common school, and the relation of Minister of Education to the college must be real and direct. The supreme object of this college of preceptors being simply this, to unite with governmental organization, the highest individuality of the teaching profession, and thereby utilize a force which now is wasted, while we, like Homer's hero "consume our souls"—to join, in short, soul to body, and give us the great joy that sweetens human work, of seeing thought take shape. Without this connection my interest ceases.

I have tried hurriedly to show that the scheme, while it may not secure permanency in the profession, while it must assuredly not aim at lessening competition by acting as a close corporation, and while it will only indirectly create a standing of professional

honour, will nevertheless raise our social standing, remedy to some extent our isolation, and transform us from machines into thinkers and thought-producers, by rousing an *esprit de corps*, by opening up channels for the highest thought of our most faithful and successful workers, by the solidity and momentum inseparable from any great organization, and lastly, by infusing into us a conception that teaching is a real and great science, and capable of indefinite extension.

Numberless difficulties of detail are inevitable. They will all be brought to light before the scheme is carried out. Some of you, perhaps, will see benefits to arise from it which I cannot, and flaws in it to which I have made no reference. I am not speaking as a partisan of the scheme, but wish with you to deliberate upon it. Think of the dignity of our work, from the common school to the university, drawing a metaphor from the old Greek torch races, we often speak of handing on the lamp of learning. Let us reflect upon what that means. In the race of human progress generation after generation accumulates vast stores of knowledge and material wealth. The wealth, we of this generation can hand down to our successors intact, but not so with the knowledge. Each generation must by patient instruction and hard labour acquire it afresh. Each generation must be trained for its work. On these ten or fifteen years of training hinges the destiny of the whole human race. Consider what would be the result of an interregnum of two generations. The lamp of knowledge, if burning at all, would be giving but a faint glimmer amid prevailing barbarism, in a century we should be back in the middle ages, if not in a far worse condition. Believe it, there is no class of men doing a greater work for humanity than we. Does not then, I ask you, any movement for the elevation of ourselves and our work deserve at least a very serious consideration?

W. S. MILNER.

Mathematics.

SOME TRIANGLES.

THE teacher in presenting the right-angled triangle to a class will generally illustrate its principles by the well-known 3, 4, 5, triangle, and some will then depend upon the examples in the text-book, instead of giving the class those of his own construction. But many teachers are not content with the ready-made examples, and will feel a desire to know some of the principles upon which these are constructed, that he may be able to make them himself. That the squares on the two sides are together equal to the square on the third side, *i.e.*, the side subtending the right-angle, and that the area equals half the base into the perpendicular, are two principles pre-supposed to be familiar to all teachers. I will now give for

consideration: Similar triangles are to each other as the squares of their similar sides, hence all multiples of the sides 3, 4, 5, (area=6), will give right-angled triangles each of whose area = the square of the multiple \times the area 6; and as any number, or set of numbers, has an infinite number of multiples, this will give an infinite number of similar triangles, many of which can be given off-hand to a class with very little mental effort; as 6, 8, 10; 9, 12, 15; 12, 16, 20; etc., to find the area, or any two sides to find the third side.

Now, perhaps, the teacher begins to wonder if the 3, 4, 5, type of triangle is the only right-angled triangle with three rational sides, for in giving any two sides at random to find the third, he has probably not found one that did not give a surd quantity. The first problem that presents itself in searching for these new types is the indeterminate equation $x^2 + y^2 = z^2$. I have found two infinite series of numbers that answer the equation: 1. Any odd number (but 1) will form the base of a right-angled triangle, the other two sides of which will be found by dividing the square of this base into two numbers, the one side being one unit in length greater than the other side (the hypotenuse) as 3, 4, 5; 5, 12, 13; 9, 24, 25; 9, 40, 41; etc., *ad infinitum*, with all multiples of each of them. This rule may be quite readily recollected if not too long disused, and may be used with evident benefit by teachers and pupils. 2. Any even number (but 2) will form the base of a right-angled triangle, the other two sides of which will be found by multiplying this base by its half, and dividing this product into two numbers—one side being two units in length greater than the other side.

$$\begin{aligned} 4 \times 2 &= 8 = 3 + 5 \therefore 4, 3, 5. \\ 6 \times 3 &= 18 = 8 + 10 \therefore 6, 8, 10. \\ 8 \times 4 &= 32 = 15 + 17 \therefore 8, 15, 17. \\ 10 \times 5 &= 50 = 24 + 26 \therefore 10, 24, 26. \end{aligned}$$

etc., *ad infinitum*, with with each of their several infinity of multiples.

This second rule may be enunciated differently, thus: The two numbers, one on each side of a square number, will form two sides of a right-angled triangle, the third side being double the square root of this square; therefore the above-mentioned series of even numbers may be thus found.

I find the curious fact that in every set of numbers of these two series, that the factors 3, 4, 5, are found in one, two, or three of the numbers of each set.

I have not been able to find any other series, and wonder if any other have been found, and how?

In John Ireland's problem (E. W. of Feb. 10), "to find two triangles whose perimeters shall be equals, the six sides rational integers, and the areas equal." I think very few numbers below 100 will satisfy the problem, as the problem takes this form—Divide a given number into two (or more) sets of three numbers each, such that the sum of the three numbers in each set shall equal the given number, and the products of the numbers in the set shall equal the products of the numbers in the other set. In his example: $39 = 10 + 5 + 24 = 4 + 15 + 20$, and $10 \times 5 \times 24 = 4 \times 15 \times 20$, each set, of course, containing the same prime factors.

W. S. HOWELL, Sombra.

THURSDAY, MARCH 10, 1887.

UNIVERSITY FEDERATION.

We trust that we have made clear our views with regard to the position which the question of University Federation in this Province has now assumed. We desire only to refer to the question further, in order to answer the questions put by Principal Grant, of Queen's University, which are to be found in another column of this issue.

Principal Grant, we cannot but think, finds considerable difficulty in answering the questions and arguments advanced in our former editorials on this subject, and resorts to the method of asking questions in return. His questions are, in our opinion, not altogether pertinent to the issue involved; and, where pertinent, are not difficult to answer.

The first three questions, which are in reality only one ingeniously sub-divided by the learned Principal for purpose of argument, can be best considered together. And the position which we have steadily and consistently maintained with regard to the question in this relation is this: that Ontario is not yet in a position, from the point of view of our available wealth, to maintain two universities in a first class condition,—in a condition to compare at all favourably with the best universities in the United States and on the Continent of Europe; and that if the Government of the Province is desirous, as it seems at least to be desirous, to supply the university wants so long and so seriously felt, the first aim of that Government ought to be, to provide, in one university at any rate, the equipment necessary to a high university standing—an equipment of which our young men have long since recognized the want.

It is purely a question of fact,—though one upon which there may be a variety of conclusions,—whether the Province of Ontario can, or cannot, at present afford to maintain two first-class universities in a thorough state of efficiency. What our view upon this question is, has been repeatedly made plain; and nothing, we presume to think, has been said to show that view to be a wrong one. Principal Grant, by way of refutation, again refers to Scotland. "Ontario," he says, "already is much wealthier than Scotland was, when it established four universities." This is both right and wrong. No person

has a better acquaintance with, or a higher appreciation of, the value of the natural resources of this Province, than Principal Grant; and no person has done more to make them generally known. But, at the same time no person knows better than he that the wealth of countries may exist in various forms, and be variously distributed; and that, however great may be the natural resources of Ontario, they are not in that form which makes them available for public expenditure in the way in which it is now asked that the Government should expend money for university purposes. The wealth of our country is much distributed, and is continually required for purposes of reproduction. In Scotland, on the contrary, there has long been much of that locked-up wealth always available for expenditure in desired channels; and one of those desired channels was found in the establishment of those universities of which Scotland is so justly proud, and whose high standing she has so steadily maintained. We think we would not be wide of the mark in saying that the *available* wealth of the city of Glasgow alone is greater than that of the whole of what Principal Grant calls "Eastern Ontario" put together. Individual fortunes there are different from ours in Canada; and individual endowments, such as the recent gift of Provost Cox, are as yet, with us, only rare instances.

We have little further to say with regard to our position that, if the Province is to see to it that at least one first-class university is maintained, the university having the "prior claims" is undoubtedly the institution formed and governed by the Provincial Legislature, and organized by it as a provincial institution. The soundness of this position can surely not be reasonably disputed. The time may come when we shall be in a position to have more than one university, such as we would desire; and we shall be glad when that time does arrive. It may be true that "universities are subject to the law of development." But is there not always a danger of such a forced development as leads to a false growth of luxuriance without a corresponding development of strength.

It is not necessary to speculate upon the future when the facts of the present have to be dealt with. That the Government of this Province cannot, as trustees of the interests of the people, afford

the large expenditure which the representation of Queen's desire, we think is patent to everybody. And that two great universities cannot be supported here by private endowment, is shown by the fact that, notwithstanding repeated exertion in this behalf, such endowment is not yet forthcoming.

Principal Grant, in his fourth question, raises a point to which we have hitherto made no reference. He asks, "Would not the establishment of the proposed School of Science in Kingston be a fair way of giving this encouragement," (the encouragement of the growth of a second university in the meantime), "and at the same time of recognizing the claims of Queen's, and meeting the practical necessities of Eastern Ontario?" His question involves many considerations, which we can now only briefly refer to. The Government, which is asked to establish a school of Practical Science at Kingston, will have to consider, in the first place, whether two schools of Practical Science are necessary in the Province (as we do not think they are); and, in the second place, whether its first duty in this respect is not in the direction of a more complete furnishing of the School of Practical Science at Toronto, which was established only a few years ago with a very inadequate allowance, which it has since steadily and rapidly outgrown. We say this in no hostile or unfriendly spirit, but simply because we know that those placed by the Government in charge of the School here have long complained that the materials at their disposal are not sufficient for the satisfactory accomplishment of the work which they are expected to do. And in connexion with Principal Grant's ingenious identification of the interests of Queen's and of Eastern Ontario, we cannot but notice that the deputation which "proposed" to the Government, the other day, the School of Science in Kingston, was a deputation not so much from Eastern Ontario as from the constituency of Queen's throughout the Province; and that the Government may have a further difficulty in deciding that the interests of Queen's are in fact recognized in Eastern Ontario as identical with those of that large district. For we learn from the *Ottawa Citizen* that the people of that city are preparing to urge their claims upon the Government, as against the claims of the city in which Queen's happens to be situated.

With regard to Principal Grant's corroboration of Mr. Shannon's statement that "the authorities of Queen's have steadily rested their case on public grounds," we have only to say that it seems to us that this position has been taken of late because it is obviously the only one upon which an appeal could hopefully be made to public sympathy and support; and that, if it is meant that Queen's has always rested her claim to the pecuniary assistance which she has asked for and received upon public rather than denominational grounds, this is a position which, as we pointed out in our last editorial on the subject, the advocates of Queen's cannot now take consistently with the past history of that institution.

REVIEWS AND NOTICES OF BOOKS.

Palæolithic Dexterity. By Daniel Wilson, LL.D., F. R. S. E., President of University College, Toronto. (Transactions of the Royal Society of Canada.)

The Right Hand and Left-handedness. By Daniel Wilson, LL.D., F. R. S. E., President of University College, Toronto. (Transactions of the Royal Society of Canada.)

THE review of these papers which appeared in *Science*, and which has been already reprinted in our own columns, will have brought to our reader's notice the gist and purport of Dr. Wilson's labours towards the solution of the interesting problem of the origin of general right-handedness. We need here only add a few words on the admirable form in which Dr. Wilson has laid his researches and his views before the Royal Society of Canada.

The monograph on "The Right Hand and Left-handedness," is by far the more elaborate of the two. Into this essay Dr. Wilson has compressed what evidently are the results of many years of personal investigation and observation; and he has embellished the expression of his views with matter drawn from almost every branch of ancient and modern lore. Arguments are marshalled from zoology, philology, palæography, epigraphy, etymology, ancient Roman augury, hieroglyphics, the architecture of antiquity, not to mention, of course, anatomy and physiology; and the whole subject has been placed before his readers with a lucidity which could only have been attained by a thorough and intimate knowledge of the various topics introduced. This monograph is undoubtedly the best and most elaborate work on the subject yet produced, and will be a mine to all future writers on the subject.

Dr. Wilson's conclusion, "that left-handedness is due to an exceptional development of the right hemisphere of the brain," we think will gain general acceptance. We should like here, however, to offer a small suggestion, viz., that special attention should be directed to the cerebellum in any examination of the brain in connexion with explanations of left-handedness. The cerebellum according to Flourens and others, is the organ for the co-ordination of muscular movement, and it

seems to us that it is especially in co-ordination that in infancy the favoured arm, be it right or left, excels. It may be that it is owing to this superiority in co-ordinating muscular movements that one arm or one leg is used more, and therefore in time becomes stronger than the other.

The American Bookseller will print on February 1st a complete list of books published in the United States in 1886.

THERE will soon appear in England an unpurged series of "The Best Plays of the Old Dramatists," edited with notes by Mr. Swinburne, Mr. Gosse and others. The spelling will be modernized.

The Pall Mall Gazette hears that a movement is on foot to obtain for Jean Ingelow, the poet and novelist, one of the annuities in the gift of the Crown, for services to literature. Miss Ingelow was born in 1830.

A NEW and enlarged edition of Prof. Hain's "Rhetoric and Composition" is in preparation by D. Appleton & Co. Sir J. William Dawson will prepare for the same firm a volume for the International Scientific Series on the subject of the development of plants in geological time.

EX-PRESIDENT WHITE endowed the Cornell University School of History and Political Science with his historical library—a collection of about 30,000 volumes, besides some 10,000 valuable pamphlets and many manuscripts. Its gathering has been his life's work, and it is said to have cost more than \$100,000. The trustees have decided to name the new school in Mr. White's honour.

MR. EDMUND COLLINS, who is to be associated with Mr. Seligman as assistant managing editor of *The Epoch*, is regarded in Canada, we are assured by a well-known Canadian *littérateur*, as "after Mr. Goldwin Smith, our most effective writer on political and other topics of the day, and is considered one of our best authorities on contemporary literature, American and English."—*The Critic*.

THE "people of importance in their day" with whom Mr. Browning "parleys" in his new book of poems, published by Houghton, Mifflin & Co., are Bernard de Mandeville, Daniel Bartoli, Christopher Smart, George Bubb Doddington, Francis Furini, Gerard de Lairese, and Charles Avison. The "parleys" are introduced by a dialogue between Apollo and the Fates, and concluded by another between John Flit and his friends.

THE titles of the six lectures on Women in Literature prepared by the Rev. George W. Cook, of West Dedham, Mass., for delivery before colleges, clubs, or parlour gatherings, are as follows: "The learned Women of the Age of Elizabeth" (1550-1650), "Lady Mary Wortley Montagu and the First English Women-of-Letters" (1650-1725), "Dr. Johnson and the Blue-Stockings" (1725-1785), "Sir Walter Scott and the Women Novelists" (1785-1815), "Harriet Martineau and the Professional Literary Women" (1815-1850), and "George Elliott and the Literary Women of Today" (1850-1885).

WE often receive letters inquiring for the cheapest editions of certain Elizabethan and other books for school use; and in replying by letter we have repeatedly commended the excellent reprints

in "Cassell's National Library," costing only a dime each in paper covers, or 25 cents in cloth. Among the fifty or more numbers already issued are Walton's *Complete Angler*, a selection of Latimer's *Sermons*, Bacon's *Wisdom of the Ancients*, etc., Maunderville's and Hakluyt's *Voyages and Travels*, Brown's *Religio Medici*, and Shakespeare's *Hamlet*, *Macbeth*, *Merchant of Venice*, and *As You Like It*. All have introductions by Prof. Henry Morley, and some have valuable illustrative matter in the form of appendixes. The introduction is of itself sometimes worth more than the cost of the book. A week or two ago we advised all the members of a class reading *As You Like It* in Rolfe's edition to buy Morley's also for the sake of his admirable comments on the moral lessons of the play. Teachers would do well to encourage the young folk in buying and reading these books out of school, if there is no place for them in school; and they are not bad pocket companions for older people in horse-car or steam-car.—*Literary World*.

WE are glad to see that Messrs. Scribner & Welford, of New York offer a new edition of Lady Martin's (Helena Faucit's) *On Some of Shakespeare's Female Characters*, at the reduced price of \$3.60. Nothing so good on the subject has appeared since Mrs. Jameson's *Characteristics of Women*. It includes papers on Ophelia, Portia, Desdemona, Juliet, Imogen, Rosalind, and Beatrice, by one who has personated them all on the stage with a truth and grace unsurpassed if not unequalled in these latter days. In her modest preface she says: "What I have written has been written in a loving and reverent spirit, with the wish to express in simplest language what I feel deeply about these exquisite creations of Shakespeare's genius. That fuller justice might well be done to them, I do not doubt. Still I have had the great advantage of throwing my own nature into theirs, of becoming moved by their emotions: I have, as it were, thought their thoughts and spoken their words straight from my own living heart and mind. I know that this has been an exceptional privilege; and to those not so fortunate, I have striven to communicate something of what I have learned in the exercise of my 'so potent art.' My best reward would be, that my sister-women should give me in return the happiness of thinking that I have helped them, if ever so little, to appreciate more deeply, and to love with a love akin to my own, these sweet and noble representatives of our sex, and have lead them to acknowledge with myself the infinite debt we owe to the poet who could portray, as no other poet has so fully done, under the most varied forms, all that gives to woman her brightest charm, her most beneficent influence." We would particularly commend the book to teachers, and especially to teachers of girls. It should have a place beside Mrs. Jameson's *Characteristics* in every school library.—*Literary World*.

BOOKS RECEIVED.

Rules of Conduct, Diary of Adventure, Letters, and Farewell Addresses. By George Washington, with Introductions and Notes. Boston: Houghton, Mifflin and Company. 1887.

Methods and Illustrations

LESSONS IN WRITING—MOVEMENT.

II.

MOVEMENTS in writing are of four kinds, viz: Finger, Muscular, Combined, and Whole-arm.

The finger movement consists in extending and contracting the thumb, first, and second fingers. This movement is seldom used and should never be taught in public schools, in fact it would not require much teaching to develop the movement as it is generally the one which the child learns first, with the use of a pencil. This movement is condemned by nearly all our best penmen, it is, in fact, behind the age.

The muscular movement is produced by the action of the muscle near the elbow, not the slightest trace of finger movement being used. I will explain this movement further on.

Next, we have the combined movement, which is produced by the action of the fingers with the "muscular."

The whole-arm movement consists of raising the arm from the desk about one-half inch or more, and swinging the hand and pen from the shoulder. This movement is sometimes used in making large bold capitals; blackboard writing must of necessity be produced by the whole-arm movement.

Now, I will direct your attention for a short time to muscular movement. I have given a short definition of it and will now explain it more fully. Ask the pupils to let their arm drop on the desk so that it may rest on the muscle below the elbow. Tell them to close the fingers and thumb, then ask them to move the hand up and down, left to right, &c. not allowing the arm to slide, the hand and wrist raised about half an inch above the desk. They will then understand what movement you require them to practice. Next allow them to take the pen in hand and give them any easy exercise. You must understand that while the pupils practise this movement that it is very difficult for them to keep their fingers at rest. Watch carefully the joint of the thumb; it should at all times remain perfectly quiet.

The reader may perhaps ask such questions as:—

Do the muscles above the elbow move? Most certainly, they move slightly.

What force should be exerted? Just enough to allow the pen to move easily and gracefully over the paper. Some students put force enough into their arm to slide a twenty-five pound weight about, instead of a pen.

Should the arm or hand be rigid? No, they are perfectly free from stiffness.

It is a very simple thing to learn the muscular movement and may easily be acquired in a day, but it will take months before you have it under control. It is now conceded to be the most important movement in writing. Why is it that the students in some schools improve so rapidly in writing? Simply because they are taught the proper movement at the beginning. They are given simple "muscular" exercises to commence with, and are not given copies which are usually traced and not written.

In conclusion let me say that whole-arm movement is useless for business writing, nor should it be taught the students with a view of preparing them for the "muscular." They know enough about the whole-arm movement in other exercises than writing.

The muscular movement is the best, and pupils trained with it will soon acquire a rapid, easy and graceful style of writing. Practise faithfully all exercises with this movement, and you will not regret it.

W. J. ELLIOT.

METHOD OF GEOGRAPHICAL INSTRUCTION.

ANALYTICAL PART.

And what in wavering vision hovers
Make fast with enduring thought.

[GOETHE, *Faust*, Prologue in Heaven.

EMPIRICAL PART.

THE sources of all knowledge are *experience* and *reflection*. To both also we shall have to address ourselves. Accordingly, to experience for the first.

Now, as is known, the so-called pedagogical experience is a peculiar thing. We know well, what we ourselves and others do; but only in rare cases do we win a sufficiently certain, clear and definite knowledge of what has been gained through that work. And even in these few favourable cases, very many questions remain unanswered.

Either the aim of our efforts was not gained: then we have learned that we should have proceeded. But how?

Or the aim was accomplished. But even then—always, as above supposed, we would know that through *doing*, and only through that, it might have been gained—even then the question yet remains whether that procedure was really best adapted to the end; whether other ways, better, shorter, might not have led more certainly to the end.

Briefly: every individual finds by accurate reflection his pedagogical experience interwoven with the accidental and the arbitrary—of others and of self; the latter is the worse, because the more difficult to be perceived—to such a degree, that he can not at all seek here the leading point of view for an earnest pedagogical procedure, if he desires to think clearly and to act conscientiously.

The case stands otherwise if we raise ourselves above the standpoint of individual experience.

It is not left with the individual teacher in public instruction, and only with this will this work employ itself, to proceed wholly and entirely according to *his* best knowledge and conscience. The leading officials [educational] determine the aim of education, and prescribe also the system of instruction, more or less in detail even.

These norms perform them also in didactical literature, as important role partly as matter of fact with which one must deal, partly as objects of criticism.

A third thing is, in this connection, easily overlooked, namely this, that here also experiences are, and, in truth, a general experience which, formed during long periods of time and from widely differing communities offers in its behalf a guaranty that in it the accidentality and the arbitrariness of the individual experience shall have been, at least in part, neutralized.

Of similar worth are the conclusions of the meetings of directors [conventions of superintendents, etc.] in the province of the Prussian kingdom, which have several times employed themselves with the geographical instruction in the Prussian higher schools.

Finally, several geographical conventions also, have made, in the course of the last decade, geographical instruction the subject of their deliberations, and have preserved the results of these deliberations in a series of theses.

Now in the following, a synopsis of such material shall first be given. Yet in this it seems neither necessary nor possible to bring under consideration the geographical instruction of all civilized lands; it will be more profitable to lay stress upon only some states as representative and to treat these therefore so much the more amply. As such I choose for Germany, Prussia; for foreign lands, Belgium.—*Indiana School Journal*.

THE London *Lancet* contends that there ought to be a Department of Health in the Government of Great Britain, and that a Minister of Health should have a seat in the Cabinet. Public medicine is preventive, and as such it can only be effective when it forms an integral part of state policy. Surely, health is not secondary to wealth; and if trade needs to be specially controlled in the interests of the state, health promotion has a not less urgent claim to be considered a constituent part of policy. The question has been re-opened, and is being agitated by Mr. Hamer, a practical worker in the field of health promotion. There are urgent matters of sanitary enterprise which call loudly for help from the Government, and which it is not only inexpedient but a cause of weakness to neglect. The Prime Minister who shall perceive the need and take measures to satisfy it will deserve well of his generation and serve his country.

STORIES FOR REPRODUCTION.

(Continued.)

THE BLIND MAN AND THE LAME MAN.

A BLIND man met a lame man in a very bad piece of road, and asked to be helped out of it.

"How can I help you," said the lame man, "since I can scarcely drag myself along. I am lame, and you look very strong."

"I am strong," said the blind man, "I could go if I could only see my way."

"Oh, then, we may help one another," said the lame man. "If you will take me on your shoulders I will be eyes for you and you can be feet for me."

"With all my heart," said the blind man. So taking the lame man on his shoulders they travelled onward safely and pleasantly.

A RUSSIAN FABLE.

Once upon a time the elephant was a great favourite with the lion. All the beasts in the forest began to talk about it and wonder what reason the lion had for taking such a fancy to the elephant. "It is no beauty; it is not amusing; and it has no manners," they said to each other.

"If it had such a bushy tail as mine," said the fox, "it would not be so strange."

"Or if it had such claws as mine," said the bear. "But it has no claws at all."

"Perhaps it is the tusks which the lion has mistaken for horns," said the ox.

"Is it possible," said the donkey, shaking its ears, "that you don't know why the elephant is so well liked? Why I have known all the time. It is because he has such long ears."

THE FIRST CUP OF COFFEE.

A long time ago a poor Arab was travelling over the hot desert. Weak and weary with fatigue he came at last to a grove. He cut down one of the trees to cook his rice, and after he had eaten found that the small dead berries that covered the tree, and were now half burned, had a very pleasant smell. He gathered some of them and crushed them with a stone. As he was doing this some of them fell into the can of water that stood by him. Instantly the stale water which had been carried a long distance, had the same delicious smell as the berries. He tasted it and found it pleasant; drank some of it and in a little while was much refreshed and able to go on his journey. He brought some of the berries and carried them to Mufti, relating the effect they had had upon him. The Mufti tried some and was so pleased with them that he named the tree on which they grew, *calnah* or *force*, but our name for it is coffee.

THE TWO DOGS.

Two dogs, Tray and Snap, went one day to walk. Tray was a good dog and would not hurt the least thing in the world; but Snap was cross and would snarl and bite at every dog that came in his way. At last

they reached a large town, and all the dogs came out to see them. Tray met them with a friendly wag of his tail, but Snap growled at all, and at last bit one that came too near. Then the men and boys came out with clubs and stones and beat Snap, and the dogs sprang on him and tore him to pieces. As Tray was with him, they dealt with him in the same way, and so he met with his death at the same time. They thought Tray was bad because he was in company with a bad dog.

THE LITTLE CLOUD.

A little cloud was floating about up in the blue sky one bright summer day. Everything else was bright and happy except a little cloud.

"I am so little," it said. "What can I do? I am tossed about by every puff of wind; I cannot even choose my own path. If I were a bird I could sing a sweet song and everybody would be glad to hear me. If I were a sunbeam I could steal into some dark room, and make it bright and beautiful. Oh, how I wish I were a flower, anything but a cloud too small to be of use."

This happened on a very hot summer day. The grass was parched and dusty, the flowers hung their heads, and the brook was so dry that it could not sing its merry song.

But pretty soon all the clouds in the sky began to roll together and soon the rain came tumbling down. The little cloud was among them and felt that it was helping to do a little good after all. It concluded that nothing was really too small to be of use.

WHAT THE ROCK SAID.

Elsie had been out on a long ramble through the fields and was very tired. So she sat down on the moss by a brookside to rest. It was such a pretty brook, and it babbled so sweetly,—just as if it were talking. And pretty soon she began to understand what it said.

"Where do you come from?" she asked.

"I was born on the mountain top," the brook answered. "Up where a tiny spring creeps from under a big rock, I began my journey. From there I have dug a channel for myself over the rocks and stones, and here I am."

"What do you do when you come to a great rock?"

"Oh, I go under it if I cannot get by it."

"And don't you ever get tired?"

"Oh, yes, sometimes, but then I never stop. Down below here I turn a mill-wheel. If I should stop how would the corn get ground? One can never be unhappy while he has something to do for others."

Elsie sat up and rubbed her eyes. Had the brook talked to her or had she been asleep? She could not tell, but kept thinking as she walked home. "One can never be unhappy while he has something to do for others."

DO THY BEST.

A great painter once fell ill and bade one of his pupils to finish the picture upon which he had been at work.

"O, I cannot," said the young man, "I would spoil it."

"Do thy best," said the master.

"But I have no skill at all, dear master," said the pupil.

"Do thy best, my son. I commission thee to do thy best."

At last he took the brush, kneeled before the picture and prayed for aid to finish the work for the sake of his beloved master. His hand grew steady, his eye sparkled with the fire of genius that had slumbered in him till now. His heart filled with joy as he saw the result of his work, and at last he carried it to his master's couch, completed. When the master saw it he burst into tears of joy at its beauty. "My son, I paint no more," he said, "you are henceforth the master," and a master of painting he was ever afterwards. His great work, "The Last Supper," has been a study for artists for hundreds of years.—*Teachers' Institute.*

HOW TO TEACH LANGUAGE TO YOUNG PUPILS.

II.

GIVE the pupils something to talk about, is a sentence that I copy from the article on Language Teaching, in the January number of the *Practical Teacher*. But teachers must not forget that correct *thinking* must precede all attempts at *talking*, whether by young people or old.

If a story be told to a class for the purpose of reproduction, all of its details must be impressed upon the children's minds before any attempt is made by them to tell or to write it in full.

These details may be fixed by a few simple questions like the following:—What was the name of the little boy? Where was he going? What happened as he came near the pond? How many men were in the boat?

All of the principal incidents of the story having been brought out, the children can be allowed to tell the story, or some considerable portion of it, without interruption.

Sentence-making, like that which would result in answer to the above questions, is not a substitute for talking, but merely a preparation for it.

Little children, even, should be trained to express their thoughts by a succession of sentences, and for this express purpose story-telling has been commended to the notice of teachers.

Assuming that this work (play, it should be to the children) has been fairly commenced, the teacher can safely risk the taking of one more step. Place a good picture before the class. (One for the purpose can be purchased at any of the print-shops for a few cents.)

If the picture be too small for all the class to see it plainly, divide the pupils into groups and work with one group. The rest can be employed upon some useful busy work. The group in question are now required to use their eyes, and to study the picture in all its details.

This study should be carefully directed by the teacher.

The pupils should be trained to select some central figure or object in the picture, and from that arrange the details in a systematic order.

If the central or most prominent figure should be a man (and this fact should be determined by the children themselves), one pupil notices that he is seated at a table. This fact is stated in the child's own words. Another notices that the man's hat is on the table, and makes his statement accordingly. A third discovers a mat at his feet; a fourth, a little dog only a few steps away. And thus the study goes on from the figure of the man in the centre, to the remotest article of furniture in the room.

Some child may now be called upon to tell the story of the picture all by himself, and if the work has been conducted skillfully by the teacher, she will not want for volunteers.

If the picture has been studied systematically, the child will be likely to tell his story with considerable method. He will be likely to say that in the picture he sees a man seated by a table. His hat is close to him on the table, and a large mat is on the floor near his feet. A little shaggy dog lies on the carpet a few steps from the table, and is looking up into the man's face.

Thus the story will be told with little interruption from the teacher until the thread is taken up by a second child, and so on to its end. An effort should be made from the very first to have the story told naturally. Little children are very likely to say, I see a man, I see a table, I see a hat, etc. This should be broken up at once by encouraging them to tell the story. If heroic measures are necessary, do not let them use the word *see* at all until they have had some little experience in story-telling.

After a few weeks of this kind of training the teacher may allow the children to give names to the boys and girls in the same picture. And now little stories may be improvised by the pupils in reference to the questions of the teacher. One boy is named Frank and another Willie. One girl is named May and another Susie. Frank and May are brother and sister. Willie and Susie are cousins who have come to spend a holiday at Uncle Ned's, who proves to be the father of Frank and May. When the story is sufficiently developed, some pupil is allowed to tell the whole of it. Then another gives his version of it, and so on until the time is exhausted.

The teacher can invariably test her success in this exercise by the enthusiasm she is able to create in her pupils. But her steps in this work should be very short ones, or only the brightest children will be able to take them.—*The Practical Teacher.*

Educational Intelligence.

EAST GREY TEACHERS' INSTITUTE.

THE convention of the above Institute was held on the 3rd and 4th ult. at Thornbury. Mr. Merchant, headmaster of the Owen Sound Collegiate Institute, took up the subject of Drawing. The subject was discussed by those present.

On the morning of the second day McGrier introduced the subject of Corporal Punishment.

Mr. Merchant then gave his views on the proposed College of Preceptory for Ontario.

Dr. McLellan then gave his lecture on Teaching. He also gave his system of Teaching Symmetry in Algoma.

Mr. Whyte took up the Teaching of Geometry to Beginners.

Mr. George Lindsay gave an account of his attendance at the late Provincial Teachers' Convention at Toronto.

A resolution was carried deprecating the course of the County Council in not paying the presiding examiners at the late entrance examination, and a committee formed to draft a memorial to the County Council relating to the matter. It was decided that the next meeting of the Association be held in Thornbury.

ST. THOMAS BOARD OF EDUCATION.

AT the last meeting of this Board communications were read from Mr. J. A. Kains accepting a position as free library trustee, and A. F. McLean resigning position as teacher of Balaclava street school; also from S. B. Morris, chairman of Special Committee of the County Council, appointed with a view of placing the county grant upon an equitable basis, and to ask the several high schools and the St. Thomas Collegiate Institute to arrange for a meeting, and select delegates and place of conference. From Mrs. L. Thornton, stating that during the first week of the present term about fifty from the new district had been enrolled at the Manitoba street school, about one half the requisite number. Since that time several had left and attended the Balaclava street school, their parents objecting to them crossing the railway track.

The report of Public School Inspector McLean showed that all the schools were in a satisfactory condition.

The Managing Committee recommended that the appointment of a successor to A. F. McLean, headmaster of Balaclava street school, be made from the following of sixty-four applications:—J. S. Smith, Belmont; J. S. Pringle, Duart; J. A. Harvey, Newry;

H. Mallory, Toronto, all holders of first-class certificates, and W. H. Haight, St. Thomas, holder of a second B. The report further recommended that the applications of Messrs. Ames and Shepard, masters of the Collegiate Institute, for increased salary, be not entertained, but that the salary of W. H. Haight, assistant master Balaclava street school, be increased \$50. On motion, the report was adopted by increasing Mr. Haight's salary \$100 instead of \$50 as recommended.

The names of the four teachers were submitted, and on motion, Mr. J. A. Harvey was appointed to succeed Mr. McLean at a salary of \$600 per annum.

The Special Committee appointed to wait upon the County Council in regard to the grant to the Collegiate Institute, reported the result of their conference and their interview with the Minister of Education regarding the formation of a new high school district, which should include Yarmouth, Southwold, Port Stanley and St. Thomas. The committee recommended that until satisfactory settlement could be arrived at with the County Council, non-resident pupils attending the Collegiate Institute be charged \$4 until the midsummer vacation, and \$2 for the balance of the year, or \$5 from now until January, 1888, so as to make up the deficiency in the grant. Report adopted.

PERTH BOARD OF EDUCATION.

AT the last meeting of this Board the Secretary informed the Board that in compliance with a resolution of the Board he had transmitted to the Department of Education the documents in reference to applicants for the office of teacher of science, and to-day received the following reply:—

To the Perth Board of Education.

The Minister has had under consideration your letter of the 3rd inst., and the accompanying resolution of the Board. He is of opinion that as Perth is a Collegiate Institute all its specialists should possess the proper qualifications. It would seem that the Board has unnecessarily limited its choice by trying to secure a specialist in science who can teach drawing also. What is required is a specialist in science who can teach Junior English, and it should not be difficult to make other provisions for drawing, as it is done in other Institutes. See High Schools Act, sec. 13 sub. sec. 5.

The applications and testimonials are returned herewith. Your obedient servant,

ALEX. MARLING,
Secretary.

Dr. Kellock wanted to know what the contingent committee were doing about building the addition to the public school, referred to them some time ago.

Mr. Meighen said the committee for this year had not yet been organized. It would be seen to at once.

Moved by Mr. Malloch, seconded by Dr. Kellock, that this Board accept the application of Mr. Wm. Dewar as Science Master for the Collegiate Institute at a salary of \$800, such engagement to commence from the date of his entering upon his duties, and that the secretary be instructed to telegraph and write to Mr. Dewar forthwith, asking him to sign his agreement and enter upon his duties at once—Carried.

Mr. Malloch moved, seconded by Mr. Cairns, that Messrs. Berford, Kellock and the mover be appointed a committee to ascertain what arrangements can be made to provide a person to teach drawing in the Collegiate Institute during the remainder of this term, and report at an adjourned meeting of this Board—Carried.

Moved by Mr. Malloch, seconded by Mr. Kellock, that in the event of Mr. Dewar not being willing to accept the engagement of Science Master for the Collegiate Institute, the secretary is instructed to tender the engagement to Mr. Jasper Fish, on the same terms and conditions as are mentioned in the last resolution respecting Mr. Dewar.

MALAHIDE-DORCHESTER TEACHERS' INSTITUTE.

THE regular meeting of the Malahide-Dorchester Institute was held in the High School building, Aylmer, on Feb. 12th. There was a large attendance of teachers, trustees and others. The first subject taken up was "Arithmetic in a Rural School," by Mr. J. A. Evans. For rural schools he advocated that practical problems suitable to farmers should be quite extensively taught. Short discussions followed. Mr. Geo. Peacock, a farmer of Mount Salem, who was a very successful teacher in the days gone by, occupied an hour and a half in illustrating how a school may be taught without the use of the rod. Miss Edith Wickett, of Aylmer, led the next subject, "Language to an Infant Class." After reading an essay showing her methods, she taught a language lesson to an infant class. Miss Hoover, of Dunboyne, followed with a paper on "How to Teach Canadian History."

The next subject was "How to Teach Definitions," introduced by Mr. Hammond, of Aylmer.

The replies to questions from the question drawer elicited considerable discussion.

HARRISTON High School is to be enlarged.

MOUNT FOREST will build a \$9,000 High School.

CHAS. E. FORSYTH, formerly a pupil of Uxbridge High School, is principal of the graded school in District No. 2, Sanilac.

ON Valentine's day the pupils of the Langton Public School presented their teacher with a silver watch as a mark of their regard for him.

MISS M. WILSON, formerly of Feversham, who taught in S.S. No. 26, Chinguacous, last year, is re-engaged for this year in the same section.

MR. WM. DEWAR, B.A., a former pupil of the Owen Sound High School, has been appointed Master of Science in the Collegiate Institute of Perth.

THE pupils of the Listowel High School presented their teachers, Messrs. A. B. McCallum and John Connolly, each with an address and a handsome piece of silverware.

AT the Otterville Public School every Friday afternoon an entertainment is given in the school-room from the scholars, the chairman and critic are chosen by the pupils, and the inhabitants attend in large numbers. The result has been a success. Mr. Copeland is the originator of the plan.

MR. S. WHALEY, teacher at Agincourt, is incapacitated from performing his public duties at present, having been obliged to undergo an operation of having a swelling or enlargement of the glands of the neck removed. We understand that Mr. Whaley is improving, and will soon be able to resume his duties again. Mr. John Whaley, of Hagerman is filling his position at present.

THE scholars and teachers of Balaclava Street School, St. Thomas, presented Mr. A. F. McLean, the retiring headmaster, with an address expressive of the esteem in which he has been held, accompanied by a dressing-case and a purse of money. Mr. McLean suitably replied. He will leave shortly for Denver. The School Board has appointed Mr. J. A. Harvey, of Newry, to succeed Mr. McLean.

WE clip the following item, says an Orillia exchange, which is quoted by an exchange as an extraordinary fact: "Miss Clara Gray, who is teaching school four miles from Sac City, Ia., boards in town and walks to and from her school every morning and night, no matter how deep the snow may be or how intense the cold." We can call to mind a young lady teacher of this town, who for the past two years walked a similar distance to the rural academy where she officiated, and no person seemed to think it anything out of the ordinary course of events. But we Canadians are a hardy race of people, our fair ones especially.

AT the last meeting of the Wilmot Teachers' Association, the following testimonial was presented to Mr. C. E. Filkins, on his departure for Ann Arbor, where he contemplates taking a literary course:—

MANHEIM, Feb. 5, 1887.

To Whom it may Concern:

This certificate bears testimony that Mr. C. E. Filkins has been a member of Wilmot Teachers' Association for upwards of a year, and that by his gentlemanly bearing, his scholarly attainments, and his kindly disposition in furthering the interests of the association, he has won the esteem of its members.

We therefore, while recognizing the laudable ambition to acquire a higher education, deeply regret the departure of our fellow teacher, and cannot suffer the present opportunity to pass without wishing him abundant success in the future.

Signed on behalf of the association,
W. R. WILKINSON, J. B. HAGLEY,
President, Secretary.

Correspondence.

UNIVERSITY FEDERATION.

To the Editor of the EDUCATIONAL WEEKLY.

SIR,—Your article in answer to Mr. Shannon's letter suggests several questions. First, when can Ontario support more than one university? You say "We do not believe that Ontario can at present maintain two first-class universities. If it could, we should be glad to see Queens the other. If it cannot, surely the Provincial University has a prior claim." Your "at present" indicates that in your opinion Ontario may yet be able to support two, and that then it would be right to establish a second. This is borne out by what you say regarding the citing of Scotland as a precedent. "Scotland's lack of population was compensated for by a superiority of wealth." Ontario already is much wealthier than Scotland was when it established four universities. Scotland has become wealthy only within the last half century. Ontario is much larger than Great Britain and Ireland, and is increasing annually in wealth. When can she afford the luxury of a second university?

Secondly, how shall we find out when a second is needed? The time will never come when any corporation or university will admit that it has money enough. Enough is always a little more than we now have. The one university will therefore always have "prior claims." Would it not be better to let this second question be decided by the historical development, of the Province, than by what Mr. Gladstone calls "the domineering *a priori* argument," or the "we believe" of any men or class of men?

Thirdly, seeing that it is admitted that Ontario may yet require a second first-class university, would it not be wise to encourage the growth of such a second in the meantime? A first-class university when needed, will not appear at the mere waving of the Minister of Education's wand. Minerva sprang full grown from the brain of Jupiter, but universities are subject to the law of development.

Fourthly, would not the establishment of the proposed School of Science in Kingston, be a fair way of giving this encouragement, and at the same time of recognizing the claims of Queen's, and meeting the practical necessities of Eastern Ontario?

As these questions cover a good deal of ground, I shall not at present touch on the denominational aspect of the question which you have raised, save by informing you that Mr. Shannon is absolutely correct when he says that "the authorities of Queens have steadily rested their case on public grounds." Believe me, yours, etc.

G. M. GRANT.

KINGSTON, Feb. 28th, 1887.

MR. RUSKIN, in his *Autobiography*, thus describes his own method of literary working: "My literary work was always done as quietly and methodically as a piece of tapestry. I knew exactly what I had got to say, put the words firmly in their places like so many stitches, hemmed the edges of chapters round with what seemed to me graceful flourishes, touched them finally with my cunningest points of colour, and read the work to papa and mamma at breakfast next morning, as a girl shows her sampler."

Examination Papers.

COUNTY CARLETON PROMOTION EXAMINATIONS.

DECEMBER, 1886.

ENTRANCE TO FOURTH CLASS.

THIRD BOOK EXERCISE.

1. Give the author of: "Lucy Gray"; "The Brook"; "Lord Ullin's Daughter"; "John Gilpin"; "After Bienheim."
2. Write out one stanza from each of the pieces above mentioned.
3. From what selections in your Third Reader are each of the following quotations taken:

"For the angels of God upturned the sod,
And laid the dead man there."

"For I know that the angels are whispering with thee."

"The storm came on before its time."
"Father, I'll die with you."
4. Where is the camel found? What is it used for? Show that it is peculiarly adapted to life in the desert.
5. Write out, in your own words, the story of either "Lucy Gray," "The Sands O'Dee," or "Bingen on the Rhine."
6. What is a thermometer used for? Of what does it consist? What degree marks the freezing point, and what the boiling point on the Fahrenheit scale? How many degrees from freezing point to boiling point?
7. Give examples of heating by conduction, and by radiation, similar to those given in your Third Reader.
8. Where is Egypt? Name its chief city and its most important river.
9. Name some famous Egyptian ruins? What were the Pyramids built for? How many in all have been discovered?
10. What purposes do the roots of plants serve? The leaves? The stem?

DICTATION.

Dictate from Third Reader the "Word Exercises" on pages 181 and 154, also the first paragraph of the lesson commencing on page 173.

READING.

Third Book, page 179, the first three paragraphs. (Regulations the same as in Second Class. Candidates in this class are expected to read with a fair degree of fluency and expression. Very few mistakes in pronunciation can be allowed.)

WRITING.

1. Allow the candidates to copy a stanza from "The burial of Sir John Moore"—page 214 Third Reader.
2. Make out a bill from the following "Memo." of goods sold:

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