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VOL. II.

THURSDAY, NOVEMBER 12TH, 1885.

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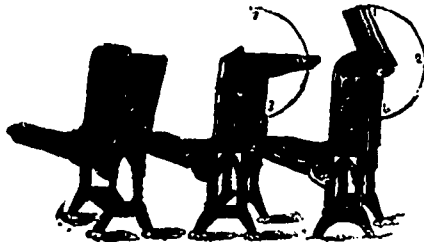
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FOR THE

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The Educational Weekly.

TORONTO, NOVEMBER 12, 1885.

THE attention of educationists and medical authorities throughout all the world has lately been strongly directed to the prevalence of over-pressure in schools, by the publication of the results of a very elaborate, persistent, and thorough enquiry into the health of the children of the better classes in Copenhagen attending school, made by Dr. Hertel, of that city, and republished in book form by the Macmillans, with an introduction by Dr. J. Crichton-Browne. Dr. Hertel found that one-third of all the school-boys were suffering from more or less serious chronic complaints. In the mixed schools 18 per cent. enter sickly, and in the third school year the number of sickly boys is about doubled, while in the second classical class over forty-one per cent. were sickly. Dr. Hertel noticed a very sudden increase in the proportion of feeble boys when they reach the age of about twelve and one half, due, as he thought, to the development of manhood, which begins then. "The complete change which the whole organism then undergoes is preceded by a short period of greater delicacy than usual, with greater susceptibility to external influences." From nine to twelve years of age boys grow about five and one-half inches in height, and increase nineteen pounds in weight. Between seventeen and twenty years they grow in height but two and one-half inches, and increase in weight twenty-three pounds; while in the three years from thirteen to sixteen there is a growth of nine and one-half inches and an increase of weight of forty-four pounds! The artificial condition which school life imposes upon a boy's habits and feelings during this latter period of his life Dr. Hertel considers to be the chief cause of the alarming invalidism which his tables show.

WITH the girls of the Copenhagen schools the case is worse, although they are by law exempt from state examinations, and allowed more freedom both in their habits and in their courses of study, which are to some extent elective. Twelve per cent. enter school more or less sickly, and sixty-one per cent. emerge from it so. Although it was impossible for Dr. Hertel to institute comparisons with children who do not go to school, since attendance is compulsory at Copenhagen, yet he could find no other factor than the conditions of school life to account for the prevailing sickness which he discovered. The most common ailment of both sexes, before puberty, was found to be scrofula; after that period, anæmia, nervousness, headache, frequent nose-bleeding,

and a great and constant increase of eye-diseases. Since the publication of Dr. Hertel's statistics and conclusions the Danish government have re-investigated the whole subject, and in an examination of nearly 30,000 children, Dr. Hertel's results are confirmed in almost every particular.

A CURIOUS feature in the whole case is what Dr. Hertel calls the "appalling" ignorance of the teachers in respect to the sanitary condition of their schools and the physical condition of their pupils. Many reported their schools to Dr. Hertel as exceptionally healthy, and were indignant at the least suspicion to the contrary, even when a subsequent careful examination revealed that one-third of their pupils were really sickly.

THE revelation of so much hygienic disorder was naturally followed by the suggestion of suitable remedies: the number of studies to be reduced; the judicious introduction of the elective system; an intermission of a few minutes between each recitation; a decided reduction of work from the thirteenth to the fifteenth year, especially for girls; more attention to be given to the conditions of bodily development; the avoidance of all that causes even temporary nervousness; a health record for each pupil, to be filled up by the parent, the family doctor, and the teacher; an eight or even seven o'clock opening of school, as in Sweden, with a corresponding early close; a more physiological system of gymnastics; and for the children of the better classes more exposure, and less petting and less society.

IT is but fair to state that the hygienic environment of Copenhagen school-children is probably worse than that in other European cities, and worse than in America; while the number of hours they are confined in the schoolroom exceeds those which measure a school-day with us. But although we have no carefully prepared statistics to guide us, the facts are undeniable that the hygienic environment of pupils in our towns and cities is not always as good as it should be, that the health of pupils suffers through this and other causes, and that the general public is constantly crying out against over-pressure.

THE sanitary condition of schools is a matter entirely under the control of the parents of the children. If they are alive to the benefits of good ventilation, immunity from drafts, evenness of temperature, pure water, properly constructed and properly kept closets, seats and desks that make

healthful posture possible, and arrangements for lighting which are not injurious to the eyes, they can easily secure all these conditions of good-health—they are purchasable at fair prices. A large proportion of the ill-health of school children is traceable to these causes, and it should not be charged against the teacher, nor against the school system.

A STILL larger percentage of the ill-health of school children, especially in towns and cities, is chargeable to the violation of hygienic conditions at home. Badly ventilated sleeping apartments, infrequent bathing, the wearing of under-garments till they have become saturated with excretory matter from the pores and no longer able to absorb it, irregular meals, hot bread and cakes, sweetmeats, unripe fruit, the wearing of thin boots and slippers, the wearing of unsuitable clothing in wet weather, the wearing of clothes that have become damp through exposure—all these causes add their quota to the sum total of the ill-health of children. Again, with the wealthier classes there are other causes of hygienic disturbance not less baneful, and more insidious. Children while still at school are submitted to many sorts of nervous excitation: evening parties, skating-rink carnivals, public amusements at late hours, which are anything but sedative in their influence upon the nervous organisms of children. But the one great cause of the nervous exhaustion of boys and girls which physicians so much deplore is the "society" life they lead long before their physical development is completed, and while all the recuperative agencies which nature intends to be used—sound sleep, regular exercise, quietness of habit, amusements which are exhilarating but not stimulating—are almost insufficient to make up for the exhaustion of energy and nervous force which the rapid growth of body and development of mind, at this time of life, produce. Scarcely any words can be too strong to describe the viciousness from a physiological, not to say moral, point of view, of allowing girls from twelve to seventeen, and boys from thirteen to eighteen, to play the rôle of party-goers, of beaux and belles, of gay gallants and ladies of fashion. And yet this is what one-half to three-fourths of the children of good society are allowed, and even encouraged to do.

WE have not by any means exhausted this subject. There are still to be considered the injurious effects upon the health of children and young people, especially upon the health of girls, of the "forcing" system, so much in vogue in our schools. Of these we shall speak next week.

Contemporary Thought.

INSTRUCTION in sewing, in ornamental needle-work, in modelling in clay, and in various of the simpler branches of industrial art, might also be given to the girls of our schools, with equal advantage to their minds and their morals.—*Christian Union*.

THE system of payment by results, in its application to schools, is such as to render the lives of their teachers one long-continued burden, with a terrible loss to the higher educational results, without one redeeming feature to commend itself to those who are outside the official ring.—*Schoolmaster, London, Eng.*

IN reference to the holiday question, if teachers were wise they would not show such an irrepresible anxiety to secure every possible holiday. The board is not exceedingly hard-hearted, and it might see its way clear to granting a prolonged leave of absence to teachers whose thirst for holidays cannot be slaked by the very liberal provisions laid down by statute.—*Peterborough Examiner*.

A HEALTHY tendency has been developed of late to push those branches of education which familiarize the student with nature, though as yet it cannot be said that so much attention has been paid to these branches as they deserve. The difference which even a very modest acquaintance with geology and botany makes in the interest of everyday life is so considerable that a very brief experience ought to demonstrate the importance of education in this direction.—*New York Tribune*.

THERE was a time when each school district in Ohio had a valuable library, furnished by the State, and many of the sub-districts even had maps, globes, and other apparatus; but there were too many teachers who could keep school without such appliances. The boys played football with the globes, and the volumes of the library were scattered and lost. And this reckless waste has had its counterpart in nearly everything else pertaining to the management of our country schools—waste of money, waste of time, and waste of effort, without aim or plan.—*Ohio Educational Monthly*.

SIR LYON PLAYFAIR at the recent British Association meeting strongly complained of the neglect of scientific studies and modern languages in public schools, and with reason. At the Oxford and Cambridge certificate examinations of last summer, 703 boys passed in Latin and 673 in Greek, but only 131 in any and all the branches of science. There were only 263 proficient in French and 94 in German, while, most deplorable of all, the number of those who passed in English did not rise above 113. It may be inferred, then, that more than six times as much attention had been paid to Latin as to English, and that all the sciences had been esteemed of less than one fifth the value of Greek!—*New York Tribune*.

IT is stated that ex-Premier Gladstone contemplates turning his attention to theological studies on his retirement from public life—in this respect following the example of Sir William Jones, Sir Isaac Newton, Lord Bacon, and John Milton. Voltaire declared that Newton's theo-

logical study was a sign of weakness; the contrary should be considered the truth. The wonder is not that great men after escaping from the turmoil and contentions of this world should turn their minds to the contemplation of the world beyond: the wonder is, that they do not do so sooner, instead of exhausting their vital powers in the pursuit of the phantom fortune, and devoting only their few last hours to the concerns of a life eternal in its duration. The signs of weakness are just the reverse of Voltaire's statement.—*The University, Chicago*.

"ABBREVIATED LONGHAND," by Wallace Ritchie, is a pamphlet explaining a new system which we should think might prove very useful. It is not claimed that it can vie in value with the more complicated shorthand for swiftness in application, and it is acknowledged that it is not brief enough for *verbatim* reporting; but its advantages lie in the extremely small amount of study and practice required for thorough mastery of it, and the fact that it could be successfully adopted in very many cases instead of the ordinary long-hand, as any compositor, almost without study, could easily read the abbreviated writing. The general plan is to use, instead of the bewildering lines, curves and dots of shorthand, the ordinary manuscript letters of the alphabet, writing, however, only the letters which are prominently sounded. A single sentence will illustrate; instead of "A fox, very hungry, chanced to come into a vineyard," the new system would only require "a fx, vri ungr, chnsd t km nto a vnyrd."—*The Critic*.

THERE are very many men in Pennsylvania who have never planted a tree. This is largely due to the fact that their attention in boyhood was not directed to the matter. Of themselves they never thought of such a thing—no one ever suggested it as a proper thing for them to do—and the habit of not doing became hopelessly chronic! Let the schools change all this. Thousands of schools in the State, both in city and country, could make such provision for securing trees that each pupil would plant a fruit tree or shade tree at his or her own home, or on the grounds of a friend or neighbor. A large school of our acquaintance has done the work in this way: The principal consulted a nurseryman, and learned that he could get choice varieties of peach trees at thirteen cents each. He then called for a contribution of twenty-five cents each from such as could conveniently make it—those who could not contribute were not urged to do so. Everybody will have his tree for Arbor Day, and each tree will probably mean many another in the time to come.—*Pennsylvania School Journal*.

IT is within the power of the professors of University College to perform a gracious and beneficial service to the Province other than the duty which is discharged in their college lecture-rooms. They might become the apostles and missionaries of culture and the higher intellectual life to the people. During the winter months they might occasionally visit the towns and larger villages of our Province and deliver well-prepared addresses there on intellectual topics in the public halls. The benefits which might result from such a course are inestimable. The intellectual level of the whole body of their listeners would be elevated.

Indirectly the strongest possible influence would be brought to bear in favor of university education, and the increased growth of such a sentiment means increased attendance and life and progress at our colleges. But the benign influences would not fall alone upon the people. A share would come to the professors. Their intellectual horizon would be widened and their sympathies deepened by such a course. In some cases race prejudices might be eliminated. Altogether then the outcome of such a movement could only be good, and we should much like to see it in some measure adopted.—*The Varsity*.

HARVARD enters this fall on the 250th year of its existence. The college begins its work equipped with the best strength that during the last ten years has caused its unprecedented growth in scholarship and liberal spirit. A number of young men have also been added to the veteran ranks of instructors. The most noteworthy addition to this year's list is the name of James Russell Lowell. So Harvard is after all to retain this one of her most illustrious sons. Evidently his attachment to his Alma Mater has not waned since the time when Cambridge and Cambridge men were topics in which his pen delighted. But that is more than twenty years ago, and yet the interval of time, the universal admiration of his literary genius, and the praise of nations for his political services, have caused no difference. His return to Harvard is certainly a fact worthy of congratulation, especially in face of the inducements held out to him by the more renowned English university. In his capacity as professor of Belles Lettres he will conduct two courses. One will be chiefly a study of Cervantes, the other will be devoted to Dante. The Spanish course is already associated with the name of Henry W. Longfellow and the Italian with that of Charles Eliot Norton. The present incumbent has certainly not undertaken a task in any way unworthy of his recent exalted rank.—*The Commercial Advertiser*.

THE EDUCATIONAL WEEKLY, one of our most valuable exchanges, had, in a recent issue, a suggestive article on "University College—Its Intellectual Life." The writer showed that the intellectual activity of University College was due entirely to the students themselves, who were not under any obligations to the faculty, council, or senate for any real encouragement in their literary and scientific enterprises. That this is a just statement is only too evident. That the success which has attended the various independent undertakings of our undergraduates is due altogether to their own efforts is a source of pride and gratification to them. But this does not relieve the council of the blame—to use no stronger word—which must attach to it in consequence of its inactivity and lack of practical interest in the highest welfare of the students. The general rule seems to be that no professor thinks it worth while to do anything outside that special work for which he is engaged. True, there are one or two exceptions, but the spirit of enterprise and progress—at least so far as outward manifestation is concerned—does not pervade the professorial staff of University College. What work is required of them is done, and done as well as at any other college, but beyond that—nothing, at least so far as helping to stimulate the progress of literary culture and scientific research amongst the students.—*The Varsity*.

Notes and Comments.

Our contributors this week are Mr. Hunter, of Barrie Collegiate Institute, Mr. Farmer, of Woodstock College, and Mr. Rouse, Toronto.

WE regret to learn that Mr. Turnbull, of Clinton High School, has had a long and severe illness. We rejoice in knowing that he is now much better.

At the late matriculation examination of Victoria University, thirty-two were admitted to freshman standing, of whom twenty were conditioned. Two were admitted to sophomore standing. Among the matriculants are three young ladies.

WE regret to notice in one of the Perth papers that there is said to be a disposition in that town to submit to the reduction of the Collegiate Institute to the rank of high school, for the sake of saving expense. As an educational centre Perth has long been held in an enviable esteem which the proposed step would soon lessen. We hope the report be not true.

WE notice in many of our exchanges a disposition to arouse and maintain a permanent public interest in the educational institutions of their respective towns. In some cases the disposition is contrary to this, but not in many. Teachers can do much to foster this public spirit by being public spirited themselves, and by taking pride in making their schools worthy of being in the fore-front of public estimation. (There are, however, too many lamentable instances of apathy in this respect.) The *Victoria Warder*, in a late article, takes the strongly material view, that a good high school is worth as much to a town, in a pecuniary sense, as a flourishing manufactory. This view is not far from true, and the Lindsay school will gain by its publication. Let the press support the school, and let the school support the press. The tone and character of both these institutions can be improved by mutual help.

THE series of readings from Browning, which the President of University College is giving for the benefit of the Newsboys' Home, will be one more act of kindness added to the long list of good deeds which this warm-hearted philanthropist has performed in aid of the institution of which he may be called both the founder and the chief supporter. We suggest to the learned principal that he put his labor in more enduring form by the preparation of a selection of Browning's poems, omitting such as cannot win popular favor, and, indeed, ought not—some such selection as Matthew Arnold has made for Wordsworth. Some annotation might be necessary. For ourselves, we confess, that not long ago we encountered a poem of Browning's which we could not understand either as to the whole

poem or as to the several lines of it; nor have we found any one since whose hermeneutical ability has served him any better.

THE second Monday Popular Concert was more pleasing than the first, because the symmetry of the programme was not destroyed by *encores*, the suitability of which depends entirely upon the exigencies or caprice of the performers at the moment. By far the most pleasing as well as the most instructive number of the evening, was the opening quintette from Mozart by the Toronto Quartette Club and Herr Kegel. We did not care for the *bravura* singing of Miss Braniff, nor for the Labitzky *capriccios* on the clarinet, and we do not think these sorts of music should be encouraged. They are merely executive difficulties elaborately worked out, and are devoid of soul or meaning. And we were somewhat disappointed in the Triumerei of Herr Corell. But for the playing of the quartette we have only words of high praise. We hope that some of our educational institutions will see their way clear to engage these admirable artists for their Christmas concerts.

WE notice in the *St. Catharines News* and in the *Mitchell Advocate* protests against the large amount of night work which school children are required to do. This subject is so perplexing that it cannot be disposed of easily. Large classes, clever and dull pupils unavoidably classed together, the examination system, irregularity of attendance, and, more than all else, the vast range of modern learning entailing as it does many necessary subjects of study, are all difficulties that make the solution hard. The only remedies we see possible just now (and some of these are only approximately possible) are: smaller classes and, of course, more teachers, a nearer approach to individual teaching, a general lessening of the stringency of the competitive examination system, a wise use of the elective system, the confinement of each subject to reasonable and practicable limits, the aiming at thoroughness rather than quantity (a most important matter, and one largely overlooked), the enforcement of regularity of attendance, and finally, the substitution of rational methods of teaching for the irrational methods so much in vogue.

THE people of the town of Picton take an interest in school matters such as is worthy of emulation. At a public meeting held lately, so largely attended that many remained standing throughout, Mr. Dobson, principal of the high school, made an address in which he reviewed the progress of university education in Europe and Canada. He also spoke, in warm terms, of the harmonious working of the model and high schools of the town. He publicly thanked the County Council for their special grant of \$200 for the purchase of apparatus for the high school, and

stated that the money would be returned to the people of the county with interest. The pupils of the model school who had been successful in the late entrance examination were then called up to the chairman, and were presented their certificates by Mr. Murray, the principal. Similarly, the successful candidates for third class certificates were presented their parchments by Mr. Platt, the inspector, and the successful second class candidates were likewise honored by Mr. Clapp, the chairman of the High School Board. Addresses on educational themes were then made by several prominent citizens. The direct value of a meeting like this may not be very great, but the indirect value, in stimulating public interest in educational matters, is beyond all computation.

AS we predicted in our issue of October 29th, the Senate of the University of Toronto has decided to increase the number of scholarships to be awarded at junior matriculation by five; although six scholarships, amounting to \$580, are already available out of public funds, and two more, amounting to \$170, out of private funds. There is a wisdom in this. In the competition for students, which the degree-conferring institutions of this Province are now all engaged in, these bonuses do have their influence. If a boy that might naturally go to Queen's, or to Victoria, can be enticed by the hope of winning \$50 or \$80 in a competitive examination at Toronto, to matriculate into the Provincial University, and to attend the Provincial College for one year,—“in the name of Mammon, shall we not bribe him? If he attend but for a year it may be he will not leave afterwards. It is true our tutors and lecturers receive but from one-half to one-third, for salaries, of what our professors get, but they are young and they are Canadian, and they can do very well on that—if they were Englishmen or Scotchmen they would have to receive more, of course. And, besides, they are not members of the Senate, and so cannot come here to defend their interests. It is true, too, we ought to have a lecturer in Spanish, and that our tutor in Italian gets but three hundred. It is true, too, that for lack of funds, so we say, our university and college are behind the age, behind every institution on this continent with which we should care to have them compared, in respect of political and historical science—for lack of funds, so we say, to provide the necessary instructors and facilities for individual research. But let all these things pass. However closely the denominational colleges may rival us in earnestness and progressiveness—let them distance us if they will—we can outdo them beyond all rivalry in the bids we can make for matriculants. Money tells. The boys shall be bribed. Put up an another four hundred.”—Yes; these Senators are wise!

Literature and Science.

AUTHORS AT HOME.

GOLDWIN SMITH AT THE GRANGE.

CHARLES G. D. ROBERTS.

[From the New York *Critic*, through the kind permission of the Editors.]

BEVERLEY STREET, though it lies in the heart of the city, is one of the most fashionable quarters of Toronto. About the middle of its eastern side a whole block is walled off from curious eyes by a high, blank fence, behind which rises what seems a bit of primeval forest. The trees are chiefly fir-trees, mossed with age, and sombre; and in the midst of their effectual privacy, with sunny tennis-lawns spread out before its windows, is The Grange. The entrance to the grounds is in another street, Grange Road, where the fir-trees stand wide apart, and the lawns stretch down to the great gates standing always hospitably open. The house itself is an old-fashioned, wide-winged mansion of red brick, low, and ample in the eaves, its warm color toned down by the frosts of many Canadian winters to an exquisite harmony with the varying greens which surround it. The quaint, undemonstrative doorway, the heavy, dark-painted hall-door, the shining, massy knocker, and the prim side-windows—all savor delightfully of *United Empire Loyalist* days. Just such fit and satisfactory architecture this as we have fair chance of finding wherever the makers of Canada came to a rest from their flight out of the angry new-born Republic. As the door opens one enters a dim, roomy hall, full of soft-brown tints and suggestion of quiet, the polished floor made noiseless with Persian rugs. On the right hand open the parlors, terminated by an octagon conservatory. The wing opposite is occupied by the dining-room and a spacious library. The dining-room has a general tone of crimson and brown, and its walls are covered with portraits in oil of the heroes of the Commonwealth. Milton, Cromwell, Hampden, Pym, Vane, *et. al.*—they are all there, gazing down severely upon the well-covered board. The abstemious host serenely dines beneath that Puritan scrutiny; but to me it has always seemed that a collection of the great cavaliers would look on with a sympathy more exhilarating. From here a short passage leads to the ante-room of the library, which, like the library itself, is lined to the ceiling with books. At the further end of the library is the fire-place, under a heavy mantel of oak, and near it stands a massive writing-desk, of some light-colored wood. A smaller desk close by is devoted to the use of the gentleman who acts as librarian and secretary. The ample windows are all on one side, facing the lawn; and the centre of the room is held by a billiard-table, which

for the most part is piled with the latest reviews and periodicals. The master of The Grange is by no means an assiduous player, but he handles the cue with fair skill. In such a home as this Mr. Goldwin Smith may be considered to have struck deep root into Canadian soil; and as his wife, whose bright hospitality gives The Grange its highest charm, is a Canadian woman, he has every right to regard himself as identified with Canada. In person Mr. Smith is very tall, straight, spare; his face keen, grave, almost severe; his iron-gray hair cut close; his eyes restless, alert, piercing, but capable at times of an unexpected gentleness and sweetness; his smile so agreeable that one must the more lament its rarity. The countenance and manner are pre-eminently those of the critic, the investigator, the tester. As he concerns himself earnestly in all our most important public affairs, his general appearance, through the medium of the Toronto *Grip*, our Canadian *Punch*, has come to be by no means unfamiliar to the people of Canada.

In becoming a Canadian, Goldwin Smith has not ceased to be an Englishman—and he has also desired to become an American, by the way. He holds his English audience through the pages of *The Contemporary* and *The Nineteenth Century*, and he addresses Americans for some weeks every year from a chair in Cornell University. In Canada he chooses to speak from behind an extremely diaphanous veil—the *nom de plume* of “A Bystander”; and under this name he for some time issued a small monthly (changed to a quarterly before its discontinuance), which was written entirely by himself, and treated of current events and the thought of the hour. That periodical has been lately succeeded by *The Week*, to which the Bystander has been a contributor since the paper was founded.

It were out of place to speak here of Goldwin Smith's career and work in England; it would be telling, too, what is pretty widely known. In Canada his influence has been far deeper than is generally imagined, or than to a surface-glance would appear. On his first coming here he was unfairly and relentlessly attacked by what was at the time the most powerful journal in Canada, the *Toronto Globe*; and he has not lacked sharp but irregular antagonism ever since. Somewhat relentless himself, as evinced by his attitude toward the Irish and the Jews, and having always one organ or other in his control, he has long ago wiped out his score against the *Globe*, and inspired a good many of his adversaries with discretion.

He devotes all his energy and time, at least so far as the world knows, to work of a more or less ephemeral nature; and when urged to the creation of something permanent, something commensurate with his

genius, he is wont to reply that he regards himself rather as a journalist than an author. He would not live by books, but by his mark stamped on men's minds. It does indeed, at first sight, surprise one to observe the meagreness of his enduring literary work, as compared with his vast reputation. There is little bearing his name save the volume of collected lectures and essays—chief among them the perhaps matchless historical study entitled “The Great Duel of the Seventeenth Century”—and the brilliant but cold and ungenial monograph on Cowper contributed to the English Men-of-Letters. His visible achievement is soon measured, but it would be hard to measure the wide-reaching effects of his influence.

Now, while a sort of conservatism is creeping over his utterances with years, doctrines contrary to those he used so strenuously to urge seem much in the ascendant in England. But in Canada he has found a more plastic material into which, almost without either our knowledge or consent, his lines have sunk deeper. His direct teachings, perhaps, have not greatly prevailed with us. He has not called into being anything like a Bystander party, for instance, to wage war against party government, and other great or little objects of his attack. For this his genius is not synthetic enough—it is too disintegrating. But his influence pervades all parties, and has proved a mighty shatterer of fetters amongst us—a swift solvent of many cast-iron prejudices. He has opened, liberalized, to some extent deprovincialized, our thought, and has convinced us that some of our most revered fetishes were but feathers and a rattle after all. But he sees too many sides of a question to give unmixed satisfaction to anybody. The Canadian Nationalists, with whom he is believed to be in sympathy, owe him both gratitude and a grudge. He has made plain to us our right to our doctrines, and the rightness of our doctrines; he has made ridiculous those who would cry “Treason” after us. But we could wish that he would suffer us to indulge a little youthful enthusiasm, as would become a people unquestionably young; and also that he would refrain from showing us quite so vividly and persistently all the lions in our path. We think we can deal with each as it comes against us. His words go far to weaken our faith in the ultimate consolidation of Canada; he tends to retard our perfect fusion, and is inclined to unduly exalt Ontario at the expense of her sister Provinces.

Speaking of Mr. Smith and Canadian Nationalism, I may mention the sad fate of the first efforts to institute the Nationalist movement. A number of years ago, certain able and patriotic young men in Toronto established a “Canada First” party, and threw themselves with zeal into

the work of propagandizing. Mr. Smith's co-operation was joyfully accepted, and he joined the movement. But it soon transpired that it was the movement which had joined him. In very fact, he swallowed the "Canada First" party; and growing tired of propagandizing when he thought the time was not ripe for it, and finding something else to do just then than assist at the possibly premature birth of a nation, he let the busy little movement fall to pieces.

As I am writing for an American audience, it may not be irrelevant to say, before concluding, that while Goldwin Smith is an ardent believer in and friend of the American people, he has at the same time but a tepid esteem for the chief part of American literature. He rather decries all but the great humorists, for whom, indeed, his admiration is unbounded. He has a full and generous appreciation for the genius of Poe. But he misses entirely the greatness of Emerson, allows to Lowell no eminence save as a satirist, and is continually asking, privately, that America shall produce a book. As he has not, however, made this exorbitant demand as yet in printer's ink, and over his sign and seal, perhaps we may be permitted to regard it as no more than a mild British joke.

LOUIS AGASSIZ AS A TEACHER.

HE had, indeed, now entered upon the occupation which was to be from youth to old age the delight of his life. Teaching was a passion with him, and his power over his pupils might be measured by his own enthusiasm. He was intellectually, as well as socially, a democrat, in the best sense. He delighted to scatter broadcast the highest results of thought and research, and to adapt them even to the youngest and most uninformed minds. In his later American travels he would talk of glacial phenomena to the driver of a country stage-coach among the mountains, or to some workman, splitting rock at the roadside, with as much earnestness as if he had been discussing problems with a brother geologist; he would take the common fisherman into his scientific confidence, telling him the intimate secrets of fish-structure or fish-embryology, till the man in his turn grew enthusiastic, and began to pour out information from the stores of his own rough and untaught habits of observation. Agassiz' general faith in the susceptibility of the popular intelligence, however untrained, to the highest truths of nature, was contagious, and he created or developed that in which he believed.

Beside his classes at the gymnasium, Agassiz collected about him, by invitation, a small audience of friends and neighbors, to whom he lectured during the winter on botany, on zoology, on the philosophy of nature. The instruction was of the most familiar and informal character, and was

continued in later years for his own children and the children of his friends. In the latter case the subjects were chiefly geology and geography in connection with botany, and in favorable weather the lessons were usually given in the open air. One can easily imagine what joy it must have been for a party of little playmates, boys and girls, to be taken out for long walks in the country over the hills about Neuchatel, and especially to Chaumont, the mountain which rises behind it, and thus to have their lessons, for which the facts and scenes about them furnished subject and illustration, combined with pleasant rambles. From some high ground affording a wide panoramic view, Agassiz would explain to them the formation of lakes, islands, rivers, springs, watersheds, hills and valleys. He always insisted that physical geography could be better taught to children in the vicinity of their own homes than by books or maps, or even globes. Nor did he think a varied landscape essential to such instruction. Undulations of the ground, some contrast of hill and plain, some sheet of water with the streams that feed it, some ridge of rocky soil acting as a watershed, may be found everywhere, and the relation of facts shown perhaps as well on a small scale as on a large one.

A very large wooden globe, on the surface of which the various features of the earth as they came up for discussion could be shown, served to make them more clear and vivid. The children took their own share in the instruction, and were themselves made to point out and describe that which had just been explained to them. They took home their collections, and as a preparation for the next lesson were often called upon to classify and describe some unusual specimen by their own unaided efforts. There was no tedium in the class. Agassiz' lively, clear and attractive method of teaching awakened their own powers of observation in his little pupils, and to some at least opened permanent sources of enjoyment.

When it was impossible to give the lessons out of doors, the children were gathered around a large table, where each one had before him or her the specimens of the day, sometimes stones and fossils, sometimes flowers, fruits, or dried plants. To each child in succession was explained separately what had first been told to all collectively. When the talk was of tropical or distant countries pains were taken to procure characteristic specimens, and the children were introduced to dates, bananas, coconuts, and other fruits, not easily to be obtained in those days in a small inland town. They, of course, concluded the lesson by eating the specimens, a practical illustration which they greatly enjoyed.—*From his Life and Correspondence, edited by his wife.*

ARCHDEACON FARRAR ON BROWNING.

BROWNING has given us not a book but a literature, and to have studied and understood him, I say deliberately, is a liberal education of itself. I do not know of any poet except Shakespeare in whom you will find so marvellous a portrait gallery. He brings his jewels from the East and West, from art and nature, from the Arabians and the Renaissance, from the classics and from the moderns, from Greece, Italy, and Palestine, France, England, Bagdad, America, Russia, from history, from fancy, from kings, revolutionary leaders, poor factory girls, cavaliers, gallant soldiers, Jews, noble and base, gypsies, metaphysicians, painters dervishes, reformers, heretics—from everything that can ennoble and delight the mind, from every passion that can debase and elevate. I know of no poet more learned, exact and thorough. When he wishes to set before you a character or a vice he does not describe it or tell you about it, but he transfuses himself into it. He tries to make us see God in the human soul. He looks into the souls of other men and tries to see them not as men see them, but as God sees them. The two objections made against him are that he is not melodious and that he is obscure. He can be as melodious as Tennyson himself and pour forth a rhetoric as magnificent as Byron, while his blank verse is as faultless as that of any man. If he is not melodious it is not because of any lack of the power of melody, but because in him the sound is always subsidiary to the sense. He builds his poems out of rough blocks of marble, but whatever there may appear of roughness in them is not due, as people think, either to carelessness or defiance. He is obscure only in the sense that his thoughts are profound. It is simply verbal obscurity, the result of an idiosyncrasy which has become a habit, and an exaggeration which has become a merit. He thinks at full speed.

I think many of Browning's nature-paintings will take precedence of many of Tennyson's. Browning is didactic, as nature is didactic and as the universe is didactic. He sees nature as a great lesson, as the work of God, and tries to interpret it to us. He is essentially a poet of humanity. Many of you may wonder why Browning speaks rather angrily of Byron while he acknowledges his splendor and power. The reason is Byron habitually spoke basely of mankind. You may recall Byron's address to the sea:

Roll on thou deep and dark blue ocean, roll;
but man to Browning is infinitely greater and grander than any number of leagues of agitated water. Browning is above all a supremely religious poet.

Educational Opinion.

ARE WE LIKELY TO HAVE A CANADIAN ARNOLD?

THE question put at the head of this paper occurred to me when thinking over some of the points raised in Mr. Wetherell's paper on "Dr. Arnold's Pedagogy." With the substance of that paper I fancy that most Canadian teachers will agree. But granted that Dr. Arnold's system "cannot be characterized as defective or antiquated," granted that "Thomas Arnold touched the very summit of true success in the education of boys," all the more pressing comes to us the query, Is the educational system of our Province such that a Dr. Arnold is possible?

Now, I am not a pessimist. I believe that our system is a good one, probably the best possible for our present circumstances. I grant that the system does not make the teacher, and that genius in teaching, like genius in anything else, is an original force that compels circumstances to yield to it. It is true that a great teacher appears only once, it may be, in many generations, and that possibly, therefore, the query should have been worded—Is it possible for a master in the schools of our Province to work on the lines on which Dr. Arnold worked?

But, even taking the query in this form, and granting all that may be legitimately claimed in respect to the excellence of our system, I have to confess that it seems to me very improbable that any one will appear in the ranks of the teachers of Ontario who will do for his scholars what Dr. Arnold did for the boys who attended Rugby. And this because our circumstances as a community compel us to adopt a system in which it is practically an impossibility for any one to do what Dr. Arnold was able under another system to do.

Along what lines did Dr. Arnold work?

"What we must look for here is, first, religious and moral principles; secondly, gentlemanly conduct; thirdly, intellectual ability."

Now, is it not a fact patent to every one that the inevitable tendency of our system is exactly to reverse this method? If any one doubts this statement let him think of our programmes and examinations, of the instability of the profession, of the short engagements, and of the divorce which, in spite of daily prayers and Scripture readings, exists between religion and education. It almost provokes a smile to think of Dr. Arnold trying to do his work amidst the circumstances which surround our public and high school teachers.

Well, what then? Would it be better to go back to denominational schools, as some wish us to do? No, for many reasons. That would be, as was shown in the WEEKLY

a short time ago, to let loose the demon of discord in every school section in the Province. It would be to postpone indefinitely the time, which is none too near as it is, when the churches will have agreed upon a common basis for religious (not theological) instruction in schools. It would be to put apart once more those who are coming together, and to narrow the intellectual and religious horizon of the people.

No! not that, but rather a waiting and working for the time when people will believe rather in education than in examinations; for the time when the faithful teacher will be less at the mercy of ignorance and intrigue; for the time when the present sad divorce between culture and religion will have come to an end; for the time (how long shall we have to wait?) when religious people of all schools will have grappled in earnest with the question—what moral and religious truth they wish taught to their children. Then another and perhaps a greater Dr. Arnold will be possible in this province.

James M. Hunter.

SCIENCE IN THE PUBLIC SCHOOLS.

THE place of science on our school programme is yet to be determined. Much has been written on the question and much has already been accomplished. But the end is not yet. The advances already made towards according this subject its true position are but pledges of what is yet to be.

Science has already fought its way into our colleges, and has obtained a certain measure of recognition in our high schools. Its presence in the colleges has almost given rise to factions among university men. A feeling of mutual distrust has sprung up between science and language. There are many scientists who spend much time and energy in decrying the study of language—more especially the department of the Greek and Roman classics—whilst the classicists have not been slow to speak slightly of the value of study in the realm of science. The simple fact is that classical scholars have had extravagant notions about the value of their chosen study, and have unavoidably clashed with the practical, and in the main, sensible drift of nineteenth century thought and life, whilst the champions of science in their new-found zeal have indulged in equal extravagance in the opposite direction. There are not wanting indications that scholars on both sides are getting nearer the golden mean, and we may indulge the hope that before many decades have run their course science and language will dwell together in peace and recognized equality.

That equality is certainly not recognized in our present university curriculum. The fact is that whilst the students who enter our Provincial University are expected to have already spent years in the study of classics, no science is *required*, and even the optional work means no more than a few months' study. In other words, the simplest elements of science must be taught in our colleges, whereas, in the department of classics, the preparatory work has been already done and a good foundation laid. Though I firmly believe that the study of the classics should always occupy a prominent position in our curriculum, I am not at all anxious that it should retain such a manifest advantage over science as it possesses to-day. Not that there should be less classics, but that science should be accorded a position of equality.

When is this preparatory work in science to be done? Anyone who examines the course of study recently prescribed by the Education Department for high schools, will be inclined to regard it as impossible to introduce additional work there. As much science is laid down as the volume of work allows. My own conviction is that this work should be done chiefly in the public schools. My reasons I shall merely indicate. Probably the worst feature about our educational results, is that a positive hatred of school and books is begotten in the minds of so many of the scholars. So far from being led to find real enjoyment in literary pursuits it is safe to say that a majority of them actually acquire a distaste of them—a distaste that is only gradually if ever overcome. The reason is that the public school course rather interferes with, than helps, the natural development of the mind. Children are always inquisitive, anxious to know all about the various objects they see around them, and eager to find out the reasons for the natural phenomena that so constantly surprise them. "What," and "how," and "why" are always on their lips. Answers to their questions are always welcome. This natural method of acquiring knowledge affords them endless diversion and unmis-takable delight. When, however, they enter the public school these queries are for the most part silenced, and they are forced to give their attention to things that are comparatively uninteresting—uninteresting because, unlike the objects that confront them on every hand, they rouse their inquisitiveness only to a very limited extent. No wonder that it begets a feeling of discontent and a spirit of rebellion; for we virtually take away the children's bread and give them a stone. If, however, the elements of the physical sciences were taught, the result would be very different. The children would be delighted to receive day by day answers to their ever-upspringing questions, and would

be roused to other queries, the answers to which in turn would be an ever-increasing delight. School life would become a real pleasure.

Again, I very much fear that our public school training gives the ambitious and studious boy the impression that all that is worth learning is to be got from books—that if he is to become a scholar these must be his sole companions, whilst the common things about him must be treated with a lofty indifference. Habits of observation are thus discouraged rather than fostered, and irreparable loss is sustained. It is this unfortunate feature in our school system which makes it seem so useless to the keen business man, and renders many of our college-bred men so lamentably ignorant of affairs. And if all were confessed the experience of graduates would tell of much unhappiness thus occasioned, and of exhausting efforts to overcome a deeply-felt defect. I need not say that the study of elementary science from the very beginning of the public school course would largely correct this defect. The lesson in physical geography, or botany, or geology, would invariably lead to an intelligent observation of natural phenomena and to a sustained interest in general research. The immense number of facts thus brought before the mind furnish abundant material for the boy's inquisitiveness to work upon and the effort to understand these facts affords an excellent means of strengthening the *reflective faculties*. Memory would not suffer; for the great principle upon which its strength depends, viz., accuracy of observation, delight in receiving and repetition, would be constantly brought into play.

Many will be ready to urge the objection that the study is too hard for children in our primary forms. Yes, and many people whose education has unfortunately shut them out from scientific pursuits are led to suppose that there is great difficulty here, largely because the names are somewhat mysterious to the uninitiated, or because they have only heard of them as parts of the university curriculum. There is no force whatever in the objection. The plan is simply to continue under an appointed and capable guide the process which the child has already been pursuing with success.

Another objection will be raised—the difficulty of finding time for it. This is a practical difficulty. If it cannot be obviated in any other way I should give science precedence over some other studies. Every pupil should learn the three R's, but much of the minutiae of map geography and of English grammar should, if necessary, give place to lessons in elementary science. Would it not, however, be feasible to let science run concurrently with the reading? I submit that this is what we should aim at. Questions of detail, affecting both teachers

and scholars, will doubtless come up and afford room for honest discussion. To these no reference can here be made.

I am satisfied that, affecting as it does the interests of that vast majority who never go beyond the public school, this course would be an immense advance upon that which now obtains. I am satisfied, too, that as the student becomes conversant with the scientific method, and extends his acquaintance with the circle of the sciences, and more and more clearly apprehends the intimate relation of any one branch of learning to all other branches, he would come to the study of the languages, of the higher mathematics, and of mental and moral science, with an eagerness, an intelligence and a zest, which would more than compensate for any neglect with which he might seem to have treated them in the earlier years of his course.

J. N. Farmer

THE STUDY OF ENGLISH.

How does it stand now, with its immense array of poets, philosophers, historians, commentators, critics, satirists, dramatists, novelists, and orators? It cannot be doubted that English literature is beyond all comparison the amplest, most various, and most splendid literature which the world has seen; and it is enough to say of the English language that it is the language of that literature . . . With all this wonderful treasure within reach of our youth, what is the position of American schools and colleges in regard to teaching English? Has English literature the foremost place in the programmes of schools? By no means; at best only a subordinate place, and in many schools no place at all. Does English take equal rank with Greek or Latin in our colleges? By no means; not in the number and rank of the teachers, nor in the consideration in which the subject is held by faculty and students, nor in the time which may be devoted to it by a candidate for a degree. Until within a few years the American colleges made no demand upon candidates for admission in regard to knowledge of English; and now that some colleges make a small requirement in English, the chief results of the examinations is to demonstrate the woful ignorance of their own language and literature which prevails among the picked youth of the country. Shall we be told, as usual, that the best way to learn English is to study Latin and Greek? The answer is that the facts do not corroborate this improbable hypothesis. American youth in large numbers study Latin and Greek, but do not thereby learn English. Moreover, this hypothesis is obviously inapplicable to the literatures. Shall we also be told, as usual, that no linguistic

discipline can be got out of the study of native language? How, then, was the Greek mind trained in language? Shall we be told that knowledge of English literature should be picked up without systematic effort? The answer is, first, that as a matter of fact this knowledge is not picked up by American youth; and, secondly, that there never was any good reason to suppose that it would be, the acquisition of a competent knowledge of English literature being not an easy but a laborious undertaking for an average youth—not a matter of entertaining reading, but of serious study. Indeed, there is no subject in which competent guidance and systematic instruction are of greater value. For ten years past Harvard University has been trying, first to stimulate the preparatory schools to give attention to English, and, secondly, to develop and improve its own instruction in that department; but its success has thus far been very moderate. So little attention is paid to English at the preparatory schools that half of the time, labor and money which the university spends upon English must be devoted to the mere elements of the subject. Moreover, this very year at Harvard less than half as much instruction, of proper university grade, is offered in English as in Greek or in Latin. The experience of all other colleges and universities resembles in this respect that of Harvard. This comparative neglect of the greatest of literatures in American schools and colleges is certainly a remarkable phenomenon.—*President Elliot of Harvard, at Johns Hopkins.*

A STATUE to Longfellow in Portland, Me., is to cost \$20,000, and \$7,000 has been subscribed.

THE village of Odessa can now boast of the finest school building in this vicinity. The building is two storeys high, of a fine quality of red brick, with a foundation of stone. The building is high, of neat design, surmounted by a belfry. There are two entrances, front and rear, the former for teachers and the general public, and the other for scholars; both are wide and a vestibule with heavy doors forms a perfect protection against cold. There are two rooms on each flat, all large, high, light and airy. The excellent system of ventilation is one of the most pleasing features of the building. The air of the rooms can be kept perfectly pure even when crowded with children, without opening door and window or otherwise causing a direct draught. The light is admirably ranged to come from behind and over the left shoulder of the pupils in each room: the blackboards are made as part of the wall and are as smooth as slate. The seats provided are of the most approved pattern, having been awarded the highest prizes at Toronto exhibition and the Provincial show in this class of exhibits. The teachers at present are Mr. Chas. Lapp, Miss McManus and Miss Henzy, and the school is doing good work. A fourth teacher will be employed.—*Napanee Banner.*

TORONTO:

THURSDAY, NOVEMBER 12, 1885.

TEACHING—IN SCHOOL AND COLLEGE.

I. IN SCHOOL.

THE progress of the science of education continually brings into stronger and stronger light this fact: that teaching is not recitation-hearing on the one hand, nor lecturing on the other. We shall, in this article, confine our remarks to the first of these methods—the hearing of recitations. Not long ago the practice was, (even now in most schools it obtains,) that the teacher assigned in each subject a certain number of pages from the text-book: in history so many, in geography so many, in arithmetic so many. When the hour for recitation came, the class was brought up, and by a series of questions of more or less logical value, the memory and judgment of the individuals of the class were tested. It used to be, also, that in their answering the very words of the book were insisted upon; happily that stage of pedagogical ineptitude is passed away.

In general terms and in short space it will be impossible to show the deficiency of the system here outlined. Teachers of power, of originality, and of inspiring enthusiasm, are able to pursue it with little hurt to their pupils. This system is fitted, perhaps, better than any other, for the preparation for a given examination in a given time. Here, as so often, we find the examination system interfering with the highest functions of the teacher. It must be said, too, that in the lower forms, the cultivation of the memory and the acquisition of facts are to be more regarded than in the higher forms; and, again, with large classes, a too common condition in teaching, the instructor has time for but little else, and so, perforce, must adopt this system as being the best available.

But the recognition of a true principle, even if it be impossible to adopt it in its completeness, is a great gain.

All teaching should be based on the principles of mind development. A teacher is not to be a siphon by which knowledge is to be conveyed from one set of receptacles (text-books) to another set (his pupils). Neither is he to be a gauger, whose duty it is simply to test how fully, and with what freedom from impurity, his pupils have performed for themselves the operation of transfer; neither a siphon nor

gauge, but a wise director of effort, a critical corrector of error, a sympathetic and inspiring leader, to the little band of experimenters, investigators, truth-seekers, knowledge-hunters, who may be about him.

It would be profitable, if space permitted, to expand and amplify this statement, but it contains the kernel of all that is needed.

Observation of the relations, characters, and constituent parts of familiar things, should be the beginning of education. The results of these observations are then formulated in thoughts—this is a real advance in the study of language—the beginning of it, we may say. These thoughts should then be expressed correctly in words—this is the beginning of grammar. The observations thus made should then be classified, arranged in suitable sequences, grouped in regard to their mutual relationships—this is an acquisition of knowledge, not yet, however, scientific knowledge. Then, from the study of many particular instances, the laws of sequence, proportion, arrangement, and so on, should be inferred—in this way the acquired knowledge becomes science, a part of a great whole; and until this point of mental development is reached—that the pupil is able to observe and describe, perceive relationship and state it, and infer law or sequence for himself—he cannot be said to be educated. When that point has been reached in his mental development education has really commenced for him.

We said that the observation of the relations, characters, and constituent parts of familiar things, should first be studied. Of course the process of education must soon include things unfamiliar, but the study and knowledge of what is unfamiliar should always be approached by the study and the acquisition of knowledge of familiar things related to, and illustrative of, these unfamiliar things. If such an approach be impossible, then the study of these things must be postponed until it be possible.

As an example of a method of applying the principles here enumerated we will take, say, the arithmetical rules of "Profit and Loss," and suppose these are to be taught to a class who have never yet studied them. It will be impossible, however, to do more than make the briefest outline of teaching which should occupy many days for completion.

In taking up this subject for the first time the teacher should not trouble either himself or his pupils with the text-book. His procedure of course will vary with the age of his class, but we will suppose his class to be quite young.

The pupils' present knowledge must first be ascertained—and this knowledge is, concerning most of the topics of ordinary school-teaching, of no slight amount. Questions referring to transactions which must have come under the pupils' observations should be given, and the form in which the answers are stated should be carefully attended to. (This is teaching grammar.) Each pupil should be invited to tell of some business transaction he himself had been engaged in, or was fully cognizant of. His statement should be made so as to be distinctly understood. (This is teaching language or expression.) As many as possible of these cases should be cited, the pupils stating them orally to the teacher, or to one another, or writing them upon the blackboard. This is the gathering together of "particular instances." The work of observation should be going on all this while too. At first the teacher should question the witnesses upon the facts given, and obtain from them their notions of gain and loss. This will be quite easy, since the notions are derived from transactions within the pupils' own experience. But the teacher should do as little as possible of this. His pupils are to be the workers, not he. He is to be simply the director, the foreman of the little intellectual workshop. The less work he does, and the more of an inquisitive and critical spirit he can inspire his pupils with, the more real will be their mental progress, because the more active and self-centred are their minds.

When the ideas of profit and loss are fully comprehended, the pupils should be asked to set for one another questions involving profit or loss; some being more inventive and full of resource than others, will do this easily, and make a text-book almost unnecessary; others will be very slow at proposing questions; but the more clearly they apprehend the notions involved in buying and selling, and in making gain or loss, the more fruitful will their minds be in inventing problems for their fellow-pupils. This process is entirely analogous to the collection of data in ordinary physical investigation.

When this stage has been reached the more difficult one involving the notation of percentage must be entered upon. If their previous knowledge of percentage is good and available, there will be no difficulty. If, as is likely to be the case, it is not, then the teacher, appealing to experience, or to transactions which, if not in the actual experience of the pupils, can be easily imagined to be such, should propose questions involving the simplest use of percentage possible. The term "per cent." is one that does not naturally occur in the child's vocabulary. A phrase should be substituted for it until its meaning is thoroughly grasped. For example, instead of saying "a gain of eight per cent.," the phrase, "a gain at the rate of eight dollars on every hundred dollars," may be used, or any other that involves ideas within the range of the pupils' experience.

In arithmetical questions the great difficulty is that children do not comprehend their meaning. They do not *realize* them. They cannot refer them to something within their own observation. Girls experience more difficulty in this way than boys. Boys are naturally traders. All their associations, hopes, and aspirations, are related to business. Inherited proclivities are sexual. The boy is mathematical because his father buys and sells and reckons. This is of course only a general statement. Girls, on the other hand, possess little of this trading instinct. Question girl pupils critically and it will be found that very few of them really grasp the meaning of the mathematical problems involving business transactions, which are set for them to do.

Now, teachers should make use of every device to bring each problem within the clear, concrete apprehension of their pupils—that is, if the pupils cannot so apprehend it for themselves. Many teachers use representatives of articles of merchandise, and counters for money. Some school boards, notably Chicago, have gone so far as to make these things part of the essential school equipment. No rule can be laid down; but unless a pupil can really *see* the transaction described in the question his solution of it is a matter of rote, of rule of thumb; whether it be by any so-called "intellectual" process whatsoever or not.

And here we would say, that no matter what text-books, or inspectors, or examinations, may require to the contrary, no

pupil should be asked to solve problems which are beyond his power of mentally grasping as above described. In every text-book, and in every examination, there are questions which the average pupil cannot so grasp, and he should not be expected to solve them. Again, in going over a subject for the first time, it is not necessary to do all the problems upon it that the ingenuity of arithmetic makers has invented. The rule is imperative. Let nothing be attempted that is beyond the clear apprehension, beyond the experience, or what may be imagined as a natural product of the experience, of the pupils.

When once the simplest relations of percentage to profit and loss are understood, then again the pupils should become inventors and investigators for themselves. Every pupil should be invited to propose questions for his own solution and that of others. If these problems are lacking in data, or are lacking in purpose, or are too simple, or too difficult, let the pupils themselves make the discovery, and offer what criticism and amendment are necessary.

When the subject, or a complete part of it, has been thus studied, or rather investigated, let the results be collected in the form of oral or written statements. Definitions, rules, methods, and all such generalizations, will then be obtained, in the only truly scientific way, as results of personal experience, observation, and induction. Language will be acquired as the necessary exponent of thought which has been really experienced, and not fictitiously so; and the principles of grammar will be learned casually as necessary to correct expression.

In all this the pupil is the real worker. He is doing simply what every student of science (no matter how experienced) must do, and must do in precisely the same way; only in the case of the pupil, he has an experienced guide and mentor always beside him to keep him from mis-spending his energies. In process of time the mental discipline which he will acquire will make the presence of a mentor unnecessary.

OUR EXCHANGES.

Harper's Weekly (New York; \$4.00 per annum) continues its magnificent pictorial illustrations of current events. The last number contains a fine portrait of the late General G. B. McClellan, once the military hero of the North, who would

perhaps have continued to be so to the end but for too much cautiousness of spirit when decisive action was needed, and a keen suspicion of the public that his ambition was not altogether military.

In the *Century* for November special stress is laid on the fiction, which includes three short stories and parts of two serials. Of the former, "A Cloud on the Mountain," by Mrs. Mary Hallock Foote, is a stirring romance of Idaho ranch life: a full-page drawing by the author to illustrate the story is the frontispiece of the number, and is engraved by Mr. T. Cole, who is now working in Italy for the *Century*. "A Story of Seven Devils" is one of Mr. Stockton's characteristic tales of humor and ingenuity: and "The Mystery of Wilhelm Rütter," by the late Helen Jackson (H.H.), is a tragic romance, the scene of which is laid among the Pennsylvania Dutch. Mr. James' "Bostonians" is continued. The new serial is Mrs. Foote's mining story, "John Bodewin's Testimony." "A Photographer's Visit to Petra," which opens the magazine, is one of the most attractive and unusual articles, in point of illustration, ever printed in the magazine. Edward L. Wilson contributes a narrative of his daring journey to the decayed city of Petra, and of his adventures with the Arabs, and Thomas W. Ludlow introduces the paper with a short historical account. Edmund Gosse contributes a second illustrated paper on "Living English Sculptors." General Grant's paper, describing the campaign and battle of "Chattanooga," is a feature of the number which will excite world-wide interest. It is, perhaps, the most finished article by him which the *Century* has thus far published. With it is given a full-page portrait of General Grant from a photograph taken at Mount McGregor; and two fac-simile pages of a part of one of his letters to Dr. Douglas. A fine full-page engraving of Robert Koehler's painting, "The Socialist," accompanies a striking essay on Socialism by the Rev. Dr. Lyman Abbott, entitled, "Danger Ahead." Edward Everett Hale describes the work of "The Chautauqua Literary and Scientific Circle." Of the poetry, excellent all in quality, is "Gifts," by Emma Lazarus, reprinted in the last issue of the *WEEKLY*.

Table Talk.

MR. J. H. SHORTHOUSE, the author of the popular book, "John Inglesant," is said to be a manufacturer of manure.

TENNYSON'S forthcoming book of poems will contain a new piece, something like the "Northern Farmer" in style, but written in the Irish brogue. About half the poems in the book are new.

SUCH improvements have been made in devices for utilizing the energy of fuel that recently a ship, with a cargo of 5,600,000 pounds, was sent to England from China on a consumption of only a half ounce of coal for one ton of cargo per mile.—*The Current*.

Will the English language become universal? The question is decided in the affirmative by Candolle, a Geneva scientist, who reasons from the rapid spread of English-speaking people throughout the world, and their almost invariable retention of their native tongue.

Special Papers.

For the EDUCATIONAL WEEKLY.

SYSTEMATIC PRONUNCIATION.—I.

WHY should the writers of English dictionaries continue to uphold an anomaly that the usage of English folk has long condemned? Why should Mr. Caleb Simpson, in his ingenious method of teaching English children to read quickly, be forced to mention a group of letters in one English word as standing for a certain sound which it stands for in no other, while in well-nigh every other (a huge array) they know the group to denote one particular sound which is the long form of this strange sound? In short, why should we any longer license the absurdity of calling *again* *agen*?

I have travelled about a good deal in Great Britain, but I do not recollect ever hearing any one pronounce the word thus, south of the Tweed, nor has it often caught my ear north of that border-stream. I come out to Canada, and am informed that it is nevertheless the correct pronunciation. I examine the recent dictionaries, and am confuted; they all agree with my censurers. But one of the very best tests of the way in which a syllable should be pronounced is the sound that it is made by poets to rime with. And, taking first the favorite verses of my childhood, I find it indeed in the time-honored translation of the Strahlpeter rimed with *then* and *men*, but in Doctor Foster, "Rain, rain, go to Spain," and "He that fights and runs away," I hear it re-echoing *rain* and *slain*.

Secondly, in the well-known description of west coast weather, once written in the travellers' register at Lynton in Devonshire (too short a stanza for irregularities), it is also made to rime with *rain*. Thus:—

"The south wind always brings wet weather,
The north wind wet and cold together,
The west wind always comes with rain,
The east wind blows it back again."

Thirdly, in the old ballad of "King John and the Abbot" it is made to rime with *same*, and it is hardly likely that the writer would have found sufficient imitation to please his ear in a different vowel sound as well as a different consonant:—

"If you rise with the sun, and go down with the
^{same,}
Until the next morning he rises *again*,
Why, then, your Grace need not make any
^{doubt,}
That in twenty-four hours you'll ride it about."

Fourthly, among the great poets I have observed the word once in Tennyson's "In Memoriam" riming with *men*. (Section 98.) But both in the writings of the English poets Cowper, William and Mary Howitt, and Coleridge, and of the American poets

Longfellow and Bryant, the only passages I can discover give it the long sound. Here are my instances:—

"The boy did ride, and soon did meet
John coming back again,
Whom in a trice he tried to stop
By catching at his rein."
—John Gilpin.

"I sigh when first I see the leaves
Fall dead upon the plain;
And all the winter long I sing,
Sweet summer, come again."
—The Strawberry Girl.

"Oh, no! no! no!" said the little fly,
'To ask me is in vain;
For who goes up your winding stair
Will ne'er come down again.'
—The Spider and the Fly.

"I fear thee, ancient Mariner!
'Be calm, thou Wedding-Guest!
'Twas not their souls that fled in pain
Which to their corpses came again,
But a troop of spirits blest.'
—The Ancient Mariner.

"He can feel the cool
Breath of each little pool;
His fevered brain
Grows calm again;
And he breathes a blessing on the rain."
—Rain in Summer.

"As he listened, o'er and o'er again
Repeated, like a burden or refrain,
He caught the words, 'Deposuit potentes
De sede, et exaltavit humiles.'
—King Robert of Sicily.

"Not for thy ivory nor thy gold
Will I unbind thy chain;
That fettered hand shall never hold
The battle-spear again."
—The African Chief.

I have left out abundant testimony from hymn-writers because I thought their compositions too sacred to be cited in such a controversy; but have we not without it the strongest evidence that, even if this anomalous pronunciation was ever used by English men of letters, it has long ceased to be so.
M. L. ROUSE.

REPORT ON ALGEBRA.

(Read at Bangor, before the Maine Pedagogical Society.)

[The special attention of young teachers in algebra is called to this paper, as it presents in a remarkably clear and concise manner the underlying principles and methods necessary for the successful teaching of this important branch of study.—ED.]

1.—REASONS FOR STUDYING ALGEBRA.

1. Discipline of the mind and development of the reasoning faculties.

a. The direct application of a knowledge of algebra does not constitute its particular importance; it is in the operation of this study on the mind, the vigor it imparts to our intellectual faculties, and the discipline it gives our reason, that its chief merit lies. Algebraic analysis begins with axiomatic truths, and by logical processes advances step by step to the most intricate forms of reasoning. The main object of all education

is to enlarge the understanding, develop the intellect, and produce practical results by making the individual more capable of grasping and reasoning upon any subject. The study of algebra tends to accomplish this result by practice in discovering the relations between given parts, in making a regular and methodical disposition of these relations, and placing them in such order that their connection is clear to the mind.

b. Algebraic analysis leaves on the mind clear and distinct conceptions. Its reasoning leads to definite conclusions, which leave no room for doubt. Hence habits of accuracy in thought and methods are induced.

2. Acquisition of knowledge.

a. If a knowledge of algebra does not enter directly into the practical wants, it must of necessity enter into the thoughts of every intelligent man. He must have a desire to know something of the processes in constant use in the sciences and in the higher mechanic arts. He must desire to possess such knowledge as will enable him to understand the explanation of simple facts in the natural sciences. A knowledge of algebra leads to an easier and clearer understanding of many of the principles of astronomy, natural philosophy, and chemistry. And in these days of practical applications of the forces of nature to the business of the world, who can afford to be ignorant of principles which lead to a ready and accurate understanding of these applications? To the student of geometry, the same is true to even a greater extent, and in the practical application of geometrical principles a knowledge of algebra is almost indispensable.

b. Perhaps the most practical benefit to be derived from the study of algebra in the public schools is the attainment of a clearer understanding of the principles of arithmetic. Problems in arithmetic are but particular cases of the more general algebraic problem. A knowledge of the algebraic problem gives a more thorough perception of the application in arithmetic. In many of the subjects of arithmetic a knowledge of algebra can hardly be dispensed with. Such, for instance, as the extraction of square, cube, and the higher roots, arithmetical and geometrical progression, ratio, and proportion. Here a knowledge of the algebraic formulæ greatly simplifies the labor of instruction and conduces to a clear and lasting knowledge of the subject. Experience shows that pupils return to the study of arithmetic after having become acquainted with the principles of algebra with a clearer understanding of the processes. With but a limited time to give to the study of arithmetic, better results may be obtained by giving part of that time to algebra.—From *N. E. Journal of Education*.

(To be concluded next week.)

Practical Art.

For the EDUCATIONAL WEEKLY.

ELEMENTARY DRAWING.—VI.

At this stage of the work the forms suggested below may prove to be useful to the teacher. They may be used as copies, though they are intended only as illustrations of the way in which easily drawn curved lines can be combined so as to produce representations of familiar and interesting objects, making them as truthful as possible, without introducing any of the difficulties of perspective. The teacher will no doubt think of many other suitable forms, but must be careful that they are not too difficult as regards the complexity of the curves used, or too intricate in arrangement to be adapted to the capabilities of his pupils. Some of the forms suggested here will perhaps need to be simplified. This can be done by omitting some of the leaves.

In drawing the objects marked *a*, *b* and *c*, fig. 6, the stem should be drawn first, then one of the curves of each leaf, and the blossom last. In drawing *a*, fig. 6, commence with the central stem, then add the stems of the leaflets, then one curve of each leaflet, and finish by adding the remaining curves. It

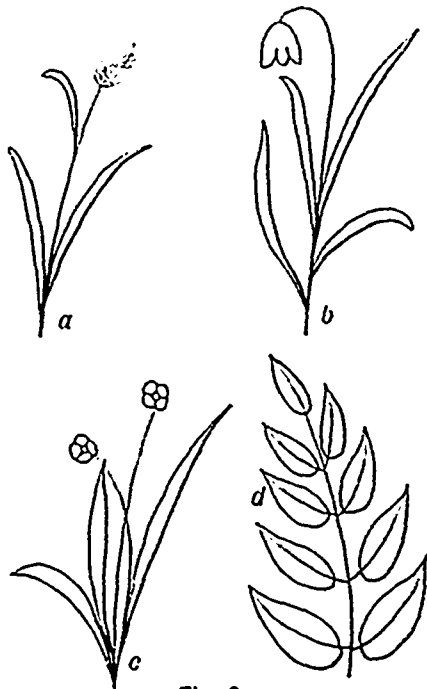


Fig. 6.

will be noticed that a curve touching the tips of the leaflets on each side will form the outline of a simple leaf. This may be drawn first, showing the stems of the leaflets as veins, then by adding the outlines of the leaflets, the form is changed from that of a simple leaf to that of a compound leaf. Let the children follow the work step by step as it is done on the blackboard, remembering the suggestion made in my last paper, to

keep them in constant anticipation of what is coming. These lessons may be made doubly interesting if the teacher, while an object is being drawn, brings out by means of questions certain facts concerning it, finds out what the children know about it, and tells them something new. Information imparted in this way will not only cause them to use their eyes to advantage, but will

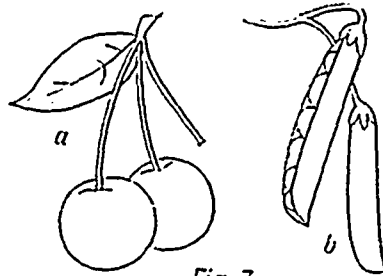


Fig. 7.

fill their minds with useful knowledge which will be the more likely to be remembered because obtained while they are pleasantly occupied.

Up to this point straight lines have been most carefully avoided, not because of any great difficulty in drawing them, but because such curves as have been used are better calculated to give freedom of movement to the hand. The principal object that should be kept in view by the teacher, is the cultivation by the children of a bold, free style of execution. This does not necessarily imply carelessness and inaccuracy. At first it may seem so, but as repeated exercises are given, each a little more difficult than the last, if the teacher is careful to point out the most glaring faults in the children's work, their eyes will become sufficiently trained to discover these faults for themselves, and the natural tendency will be towards greater accuracy. The eye never willfully misleads the hand. The reason why the hand is misled at all, is want of training on the part of both eye and hand. The criticism of the teacher is necessary for the correction of the faults of the eye, and exercise in drawing for correction of the faults of the hand.

In order to make the number of useful and available forms as large as possible, it will be necessary to introduce a few straight lines. These should be short at first, and may be accompanied by curved lines in the pictures of simple objects, as is shown in the drawing of the pea-pods marked *b*, in fig. 7. It will be found that when the drawing of straight lines is commenced, the objects used must be *manufactured* and not *natural*. In nature there are very few straight lines. What we imagine to be straight lines in the trunks of trees, the veins of leaves, etc., will, on being tested, prove to be beautiful curves. Straight lines tend to produce stiffness, and we find nothing of that in nature.

Many of the manufactured articles with which we are familiar and which will serve as

useful subjects for drawing, such as spails, tubs, cups, etc., are circular, and, if we wish to represent them truthfully, they must be drawn in perspective so as to show the fact that they are solids and not surfaces. The perspective of the circle may be taught without encountering very much difficulty. It may be necessary to explain, first, what a *circle* is. Euclid's definition is in effect:—a plane surface enclosed by a line, such that every portion of it is equi-distant from a fixed point in the circle, called the centre. Now, very few, if any, children in a junior class could comprehend this, and so it would be worse than useless to tell it to them. By means of a string with a piece of chalk tied to the end, a circle can be traced in the air by whirling the chalk round the finger and thumb. It can be clearly seen that the chalk is always the same distance from the point where the string is held and that this point is stationary. Then the string can be held by a finger firmly against the blackboard, and a circle traced with the chalk. This is the picture of the circle that was seen in the air.

The forms of the apple, plum, and pear, fig. 8, will be useful as an exercise to prepare the children for what is to follow. The apple, *a*, is almost circular; the plum, *b*, is elliptical, and the pear, *c*, is oval. That is, that though they are not absolutely circular, elliptical, and oval, they are sufficiently near it for us to be able to say that their forms are based upon these geometric figures. It

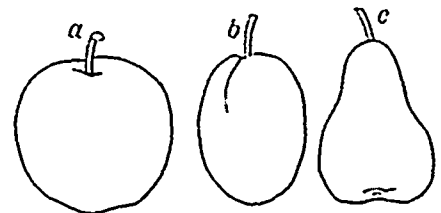


Fig. 8.

would be well, in using them, not to refer to this fact, unless the children have some slight knowledge of Geometry. They will be quite satisfied with them as the representations of these common fruits. If possible, a specimen of each should be at hand, as near as can be found, like the figures mentioned. These could be handed around from one child to another, so that each can see for himself the difference in shape after attention has been directed to it.

Arthur N. Reading

Is it right to add a syllable in pronouncing the possessive of proper names ending with an *s* or *c* sound, as Holmes's, James's, Charles's Alice's, Max's?—*M. McC.* Yes; but if you are going to write a poem poetic license will warrant the omission of the final *s*, thus leaving only the apostrophe, which, of course, is not sounded.—*The Critic.*

The Public School.

For the EDUCATIONAL WEEKLY.

LITERATURE FOR ENTRANCE INTO HIGH SCHOOLS.

VII.—THE HEROINE OF VERCHÈRES.

Ontario Readers—New Series. Page 201.

AUTHOR'S LIFE.

FRANCIS PARKMAN was born in Boston, Mass., 1823. When only twenty years of age he travelled in Europe (1843-44), and on his return was graduated from Harvard. He was early drawn to the consideration of the early history of America, and in 1846 in order to observe the habits of the Indians and to become acquainted with their legends and traditions he abandoned the pursuit of law. Owing to the severe hardships he encountered during his stay amongst the Dakota and other Indians his health was broken and he has since been an invalid. Notwithstanding the great difficulty he experiences in reading or writing he has visited France twice in order to examine original documents in Paris, and he has produced a series of animated and accurate works, with reference to the early settlers of the States and Canada. Some of the volumes are: "The Conspiracy of Pontiac," "Pioneers of France in the New World," "Jesuits in North America," "Discovery of the Great West," "The Old Régime in Canada," "Frontenac and New France under Louis XIV." This series is worthy of a place in every Canadian library, as it is the result of Parkman's belief that the annals of French rule are not barren of interesting and important events that have had much influence on the formation of character and opinion in North America. The "Heroine of Verchères" appears in "Frontenac and New France."

NOTES AND SUGGESTIVE QUESTIONS.

"The Heroine of Verchères." What is a heroine? Name any whom you know of. Why is this girl worthy of the name?

"Incidents that are preserved." What is an incident? Is it right to talk of one being preserved?

"Frontenac's troubled second administration." Frontenac's first administration lasted from 1672 to 1682. He was recalled to France because of his quarrel with his council. In 1689 he was sent out a second time to command the French in their struggle with the British. Though arriving at a time when affairs in Canada were greatly confused, he soon restored order, and in his contest with the British regained for the French name the dignity and honor that his immediate predecessors had lost.

"None are so worthy of record." Should *are* be *is*?

"Seignior." French officers that decided to live in Canada received large grants of land from

the Government and in course of time became a privileged class, a sort of Feudal system having sprung into existence.

"Recital." Meaning?

"Twenty miles below Montreal." How wide is the St. Lawrence here? In what county is Verchères? What river is on the east of the county?

"Blockhouse." A sort of fort made of hewn timber and loopholed for purposes of defence.

"Inhabitants were at work in the fields." At what, probably?

"On duty at Quebec." Meaning? How far away was he?

"His wife was at Montreal." What sort of place was Montreal in 1692?

"Madeleine." Pronounced Mä-dë-län.

"Here come the Iroquois." Much of the history of Canada is concerned with the struggles with the Iroquois from the country south of the lakes, and the Hurons and Algonquins in what is now British territory. This warfare was characterized by sudden attacks, fierce conflicts, ruthless torture of prisoners, and insults to the dead.

"At the distance of a pistol shot." How far would this be?

"Made the time seem very long." What is meant?

"Whistled about my ears." Why *ears*?

"Few people." How many?

"Palisades had fallen." What does this show concerning the arrival of the Iroquois?

"Putting on a hat." Why was the bonnet exchanged for a hat?

"Let us fight to the death." Meaning?

"And our religion." The Iroquois despised the Hurons for adopting the religion of the French.

"Two of the bastions." A bastion is a tower, very broad in proportion to its height, projecting from the wall in such a way as to permit an uninterrupted view along the outside of the wall. It would seem that in this case there was a bastion on each of the four sides of the fort.

VIII.—THE SHIPBUILDERS.

Ontario Readers—Old Series. Page 67.

AUTHOR'S LIFE.

John Greenleaf Whittier, of mixed Puritan and Quaker blood, was born in 1807, near Haverhill, Mass. In his youth he enjoyed few of the advantages that are now so common even in Canada. "There was little to read but the Bible, 'Pilgrim's Progress' and the weekly newspaper, and no schooling but in the district school-house. Yet the boy's poetic fancy and native sense of rhythm were not inert. He listened eagerly to the provincial legends and traditions recounted by his elders at the fireside, and he began to put his thoughts in numbers at the earliest possible age." A copy of Burns' poems that fell into his hands is said to have acted as a stimulus to his poetic genius. Being ambitious he was not long content with his ordinary tools,

the farmer's plough and the shoemaker's awl, and at the age of eighteen once more began to attend school. Two years were spent at Haverhill Academy, and when he was only 21 he was appointed editor of *The American Manufacturer*. In this capacity he was so successful that in 1830 he received the same position on *The New England Review*. In 1831 Garrison started *The Liberator* in the interests of the abolition movement, and Whittier was a frequent contributor of prose and verse to its columns. In 1835, some time after his retirement to his farm from the editorial chair of the *Review*, he was elected to the Massachusetts Legislature, and in 1836 his efforts in the cause of abolition were recognized in his appointment to the secretaryship of the Anti-Slavery Society, and the editorial chair of the *Pennsylvania Freeman*, published in Philadelphia. His work in the anti-slavery cause brought him into greater disrepute, disgrace, and even danger, than we are now-a-days able to understand. He was several times exposed to the fury of a mob, and in Philadelphia his office was wrecked by the maddened populace who recognized in him one of the chief leaders in the hated movement. "He now doomed himself to years of retardation and disfavor, and had no reason to foresee the honors they would bring in the end. What he tells is the truth: 'For twenty years my name would have injured the circulation of any of the literary or political journals in the country.'" It has been said of him that of all poets he "has from first to last done most for the abolition of slavery." Bryant says that he made himself the champion of the slave "when to say aught against the national cause was to draw upon one's self the bitterest hatred, loathing, and contempt, of the great majority of men throughout the land." In 1840 he changed his residence from Philadelphia to Amesbury, Mass., where he acted as correspondent of the *National Era* and kept sending out his prose and verse, every day with less bitter opposition.

The most noted of his political works are: "Voices of Freedom" (1836); "Collected Poems" (1850); "Songs of Labor" (1851); "Home Ballads" (1859); "Snow Bound and Maud Muller" (1866) "Tent on the Beach" (1867).

To criticise his poetry is beyond the scope of this sketch. It is sufficient to say that his early work, owing to the rapidity with which it was dashed off, and to the fact that it was written merely to accomplish a temporary purpose, has already lost much of its interest, though, of course, some of it, as "Massachusetts to Virginia," will never be forgotten. His poetry since the war has been marked by greater care, and is therefore more chaste and polished in language, of gentler flow and more perfect execution. Many of his latter poems are marked by a transcendentalism

much akin to that of Emerson; his "Questions of Life" will repay perusal even if its mode of treatment does not always seem poetical. The great faith of the poet in inherent goodness or "inward light," his love for all mankind, his outspoken words against all show, his love of country and of nature, are a characteristic of the Society to which he belongs though possessed by him to a degree possible only in a great poet.

NOTES AND SUGGESTIVE QUESTIONS.

"The Shipbuilders" is one of a number of poems published by Whittier under the title "Songs of Labor." This series includes besides "The Shipbuilders," "The Shoemakers," "The Drovers," "The Fishermen," "The Huskers," "The Corn Song," and "The Lumbermen." The object of the poems was to teach the beauty of humble things or (in Whittier's own words), "The unsung beauty hid life's common things below."

Concerning these poems he writes:—

"Haply from them the toiler, bent
Above his forge or plough, may gain
A manlier spirit of content,
And feel that life is wisest spent
Where the strong working hand makes strong
the working brain."

"The Shipbuilders." What is the place of building? At what other places are ships built?

"Is *rusty*." Why not *rosy*?

"In the east." At what time of day? Is the sky ever ruddy in the east at evening?

"Earth is gray." Earth always gray? When?

"Spectral." What is a *spectre*? Word appropriate? Write another sentence containing the word.

"River-mist." Cause of mist? What would be the effect of mist on appearance of *white timbers*? Give other examples of compound words.

"White timbers." Why white?

"Measured stroke." Measured in what way? Other meaning of *measure*?

"Grating saw." Good word? Does a saw always grate? When especially?

"Broad axe." Should there be hyphen between these words? Tell difference that hyphen makes in pronunciation.

"Gnarled oak." Is the oak generally gnarled?

"Mallet." Other words from same root?

"Roars the bellows." Is this good English?

"Blast on blast." Why not *after*?

"Smithy." Force of suffix? Other examples?

"Fire-sparks." Tell what is meant. How could they fade with the stars?

"For us." Why repeated so often? Who are meant?

"Flashing forge," "groaning anvil," "heavy hand." Explain the appropriateness of epithets.

"Scourge." What is meant?

"From—near." Any contrast?

"Down the stream." Adjectival or adverbial?

"Island barges." As large as islands?

"Century-circled." Having one hundred rings, or perhaps circled by a century.

"His hill." Why not *the*?

"We make human art." Meaning? ("We use nature's trees, etc., in building our ship," or "We make the *wind*, etc., serve our ship.")

"Rib-beam." What is a rib? a beam?

"Tree-nails." Wooden pins.

"Keel—plough." How could the *keel plough*?

"Sea's rough field." Explain.

"Salt spray caught below." What does this indicate? Why *salt*? Difference between *spray* and *foam*?

"Beck." Difference from *order*, *command*?

"As if they trod the land." With as much certainty of danger.

"May peel." What may peel?

"Vulture-beak." What is the nature of a vulture's beak?

"Sunken rock and coral peak." Mention some places where these are found.

"And know—grave." A fine quatrain. Notice the contrasts which bring out the responsibility resting on the shipbuilders.

"Strike away." For what purpose?

"Young bride." How is the ship like a *young bride*?

"Grooves." The *ways* or *supports*.

"Virgin prow." Untouched by water and wind which discolor.

"Look!" Effect of these exclamations?

"Shall fan." What shall fan?

"Snowy wing." Explain.

"Hebrides." Where and what? To what extent is *frozen* correct? What might a ship be doing there?

"Hindustan." *Sultry* correct? What trade is carried on with India?

"Peaceful flag." War is an evil.

"Silken chain." Soft and pleasant bond of commerce.

"Merchandise of sin." Explained in latter part of stanza.

"Groaning cargo." Slaves.

"Lethan drug." Opium largely imported by the Chinese.

"Poison-draught." Alcoholic liquor.

"Golden grain." Corn, wheat and barley.

"Golden sand." Gold dust.

"Clustered fruits." Grapes.

What feature of the poem is most striking? What the most beautiful?

PHILETUS.

COLONEL PARKER'S EDUCATIONAL OPINIONS.

(Continued from last issue.)

CONTRAST this, the normal method of progress, with that of teachers, who, converted at some educational camp meeting, fired by new zeal, a zeal not founded upon understanding, fling their banner upon the outer wall and flaunt the announcement that they are to introduce, immediately, the new methods. "Everything done before is wrong; behold all things shall become new."

Why? How? The enthusiastic tyro is the new authority; the "how?" he finds in the details of method books. Vain hopes! The usual sequence we all know; dazed and enraged parents, astonished superintendents, decisive, unrelenting school boards. Verdict of the teacher, "I am a martyr to the new methods." No martyr are you, my dear teacher, but a victim to your own lack of common sense. The conversion, the zeal, the enthusiasm, are all indispensable to success; you failed because you lacked wise discretion.

YEARS of close, patient study are absolutely required to make even a good beginning. No one can learn this art for you, you must learn its theory and practice for yourself.

IT has never ceased to be a source of wonder to me that teachers having the tremendous responsibility before them of shaping and developing the future of nations, the happiness of the race, and the growth of immortal souls, have not and do not feel the great necessity of a continual study of the science of education.

TEN years ago a standard work upon education could not be found on the richly-loaded shelves of the book dealers in our "modern Athens." More books upon education have been published in the United States in the last five years than in the previous one hundred years.

NEVER for a moment have I dreamed of presenting a systematic body of pedagogical knowledge, any thoroughly worked out methods, or a summation of final principles. All I did then, all I do now, all I ever hope to do, is to say to my fellow-teachers, "Here is something to study, for the sake of the children study it! Hundreds of great thinkers have called it right, but do not you call it right or wrong until you have proved by close investigation its truth or falsity."

ONE indisputable fact still remains, there are and always will be every day of our lives, important truths in the domain of education for you and for me to learn, no matter how persistently we may study. It will take a hundred years at least, for teachers to learn and apply known principles.

WITHIN ten years there has been more real progress in education than there has been since common schools were founded. For instance, ten years ago there was not a chair of pedagogy in this country, now there are six or seven. I have already alluded to the fact that more pedagogical works have been published in English during the last five years than ever before.

Educational Intelligence.

EAST BRUCE TEACHERS ASSOCIATION.

THIS convention held its semi-annual meeting in Warton on Thursday and Friday, Oct. 15th and 16th.

In the afternoon of Thursday, "How to spend Friday afternoon," was taken up by Mr. McCool. No lessons should be taught; spelling matches, drawing and drill, also recitations, singing, etc., might be taken up instead of the ordinary work. Miss Baird then took up the subject of kindergarten songs, in a practical and interesting manner, and some samples of these songs were given by six of the teachers present. "The newspaper in school" was then discussed by Messrs. Hicks, Moore, Hutson, Clendenning, Campbell and others. Mr. Moore gave his method of teaching "The simple rules," during which the teachers present received many useful and practical hints. "How to secure and retain attention" was then shown by Mr. Clendenning. The Inspector's address abounded with practical and useful hints for the teacher.

On Friday morning Mr. Clendenning proceeded with his remarks on "How to secure and retain attention," and was followed by Mr. Moore, who finished his subject, "The simple rules," which was discussed by Miss McClure, Rev. H. S. Halliman, Mr. Clendenning and Mr. Campbell.

On Friday afternoon Miss McClure read an excellent paper on "Order in school," treating the subject in an able and practical manner.

An excellent paper on "Home" was then read by Mr. Hicks, which contained many valuable hints for parents.

Mr. Clendenning spoke on paying two-thirds of the fares of the delegates to the Provincial Association, which was decided to be done. It was decided that the next meeting of this association be held in Tara. Mr. Moore spoke very forcibly on the benefits of Uniform Promotion Examinations. He had seen the working of that system, and the results were very satisfactory. Moved by Miss Jelly, seconded by Mr. Black, that Messrs. Munroe and Telford be appointed to arrange with West Bruce about joining in the project of Uniform Promotion Examinations, and also to arrange about a grant from the County Council to defray expenses connected with the introduction of this system. Carried.

The meeting was then adjourned till the evening, when a public entertainment was given. — *Condensed from the Paisley Advocate.*

PRINCE EDWARD TEACHERS' ASSOCIATION.

THIS convention was held on Friday and Saturday, Oct. 16th and 17th, Mr. G. D. Platt, Inspector, in the chair.

On Friday morning the report of committee on a "Reading Circle" for the teachers of the county was presented by Mr. G. D. Platt. He drew the attention of convention to the nature of the "circle" and to the class of reading that should be adopted. Several teachers took part in discussing the matter, and a committee was appointed to formulate a system of regulations, etc., governing the Reading Circle, and to report progress on the following day. An essay on "The teacher and the pupil" was read by Miss Bertie Wilson, with the marked approval of the convention. Mr. R. W. Murray illustrated the "Principles of Perspective" in drawing, using a frame of his own construction to assist him in his explanations. The main outlines of the science were given with clearness and brevity.

At the afternoon session Mr. R. Dobson, B.A., introduced the subject of "Arbor Day." He dwelt in a forcible and interesting manner upon the necessity of cultivating the aesthetic taste of children and showed that this can be largely done by improving the appearance of school-grounds, planting trees, flowers, etc. He urged upon the trustees the necessity of taking advantage of next "Arbor Day" in the various schools of the county. Mr. Osborne, delegate to the Provincial Convention, gave a detailed and interesting report of the work done there, the substance of papers read, and the mode of business adopted.

The convention re-assembled on Saturday. The report of committee on the Reading Circle was presented by Mr. Murray and received. The report contained the following suggestions:—1st. That the work cover a period of six months, a certain amount of reading for each month; 2nd. That the following be the course for the next six months, viz.: Hopkins' "Outline of Man," "Merchant of Venice," and Ruskin's "Ethics of the Dust"; 3rd. That a general review of the work be conducted at the next convention, so that as many as possible may take part; 4th. That suitable officers and a committee be appointed to lay out the monthly reading and prepare a programme for the convention. The report was adopted and the committee and officers appointed accordingly, viz.: Mr. Dobson, President; Mr. Ostrom, Vice-President; Miss Julia Gillespie, Secretary; Managing Committee of Circle—Mr. Murray, Miss Williamson, Miss Dunlap. The report of the committee on the subject of "Making Conventions Interesting" was received and the following points adopted:—1st. That arrangements be made at one convention for a programme for the next; 2nd. That on

subjects of science every teacher should be required to make some statement; 3rd. That the work be of a very practical nature; 4th. That speeches be short and to the point; 5th. That some time should be devoted to methods. — *Condensed from Picton Gazette.*

NORTH HURON TEACHERS' ASSOCIATION.

THE regular semi-annual meeting of the North Huron Teachers' Association was held in the central school, Wingham, on Thursday and Friday, Oct. 22nd and 23rd. The president of the Association, Mr. Malloch, of Clinton, occupied the chair.

On Thursday the president gave his "Notes by the Way," or jottings made during his official visits to the schools, which was a highly interesting paper. Miss B. H. Reynolds, of the Wingham school, read an essay on "Music," which was really a clever and able effort. Mr. Groves, of the Wingham Public School, then took up his method of "Teaching Geometry to Beginners," to a class which had passed the entrance examination in July. The class acquitted themselves well, showing a thorough appreciation of the arguments presented in Euclid and elements. A discussion took place regarding Mr. Groves' method, in which Messrs. Fowler, Johnston, Knight, Carnyn and Stewart took part. Miss Catley, of the Wingham School, read an excellent essay on "Poetry."

The second day's proceedings were opened by Mr. W. H. Stewart, who read an interesting essay on "Love of school." Mr. Groves then took a fourth book class and gave a sample lesson in history, illustrating his method of teaching the subject. Dr. Towler followed with an excellent address on "Hygiene," which contained many valuable hints, and from which the teachers will doubtless derive profit. Mr. J. A. Morton, chairman of the Wingham School Board, gave an interesting address on "Schoolroom ventilation." Mr. W. Lithgow took up the subject of "Bible poetry compared and contrasted with western literature, ancient and modern," which he handled in a very able manner. Mr. Groves concluded the programme by reading a paper entitled "Matters and things," in which he discussed many of the objections raised by outsiders against the public schools.

On Thursday evening a successful entertainment was held in the town hall. — *Condensed from Wingham Times.*

THE Walkerton High School has organized a football club.

THE Thorold High School football club has been re-organized.

VACCINATION is compulsory in the Walkerton High School after Nov. 1st.

WHITBY C. I. Literary Society have established a manuscript periodical called the *Olio*.

MR. S. NEILLY has resigned his position of principal of the Hanover Public School.

MR. CHAMBERS succeeds Mr. Swanton as principal of the Springfield Public School.

MR. GROVES has been re-appointed principal of Wingham Public School at a salary of \$650.

MR. H. F. MACDIARMID has been selected head master of the Ingersoll Model School at \$800 per annum.—*East Kent Plaindealer*.

THE present staff of teachers in our high and public schools have all been re-engaged for the year 1886.—*Smith's Falls Independent*.

MR. L. FLECKENSTEIN, headmaster of the Port Stanley Public School, has been re-engaged at an increase of salary.—*Springfield, Ont., Argus*.

THE Collingwood Collegiate Institute Literary Society announces two lectures by the Rev. Dr. Sexton the celebrated English divine and scientist.

MR. O. T. MATHER, teacher Lynn Valley, Oxford Co., has given up his school to attend the Ingersoll High School to study for a First Class certificate.

MRS. L. A. WILMOT has presented the University of New Brunswick with a valuable permanent scholarship in memory of her husband, the late Hon. Judge Wilmot.

WHITBY Collegiate Institute Annual Games were a great success. Some sixty-six prizes were given, besides badges, pins and brooches to the drill club, and the young ladies' calisthenical club.

THE National Education Association at their meeting in Madison, Wisconsin, in 1884 passed a resolution recommending music to be taught as a branch of education in all public schools throughout the United States.

MR. E. ODUM has been appointed principal of Pembroke High School at a salary of \$1,050. Mr. N. Williams, mathematical master at \$700; Mr. T. O'Hagan, modern languages' master at \$700, and J. C. Stewart, principal of the public school at a salary of \$650.

THOMAS HARRISON, LL.D., Professor of Mathematics and Natural Philosophy in the University of New Brunswick, has been appointed President *vice* Dr. Jack, resigned. Dr. Jack had been connected with the university since 1840, and for twenty-four years has been its president.

MR. H. S. MCLEAN has re-engaged with the High School Board; this completes the staff for next year, which is the same as this; we are glad to know of the re-engagement of the entire staff, for they have proved themselves efficient and eminently suited for their positions.—*Clinton New Era*.

AN original hymn, which, it is said, had not been seen by the children until just previous to singing, when it was distributed to them in sealed envelopes, was sung at a recent musical festival in Providence by a chorus of 1,050 voices, composed of pupils of the grammar schools of that city.—*School Music Journal*.

THE Waterford school house has been enlarged to nearly double its former size. It has now

four rooms, spacious, airy and beautifully finished, two 21 x 47 feet, and two 30 x 50 feet. The desks for the highest divisions have arrived. They are single and of the latest pattern. Total cost of the improvements, including furnaces, about \$2,800.—*Norfolk Reformer*.

MR. GROVES, principal of the school, recommended that all the teachers be requested to subscribe for some educational paper or periodical, or that the board make a donation of a year's subscription to each one. On motion of Mr. Cummings it was decided to request all the teachers to procure some educational paper, in accordance with Principal Groves' recommendation.—*Wingham Times*.

AT the Teachers' Association in Warton last Friday Mr. Telford of Walkerton and Mr. Munro of Paisley were appointed to confer with the West Bruce teachers with respect to the uniform promotion examinations shortly to be introduced into this county. They were also appointed to wait on the county council to request a sum sufficient to defray the expenses of these examinations.—*Paisley Advocate*.

THERE are one hundred thousand persons at present pursuing the Chautauqua course. The originators of this unexampled enterprise, from their headquarters in Chautauqua, publish a specified course, and from them can be obtained the books requisite for the study of that course. The students may reside in any part of the world, and after four years study, if they have successfully passed all the examinations, they are presented with a certificate attesting the fact.

THE new desks for the Waterford School arrived last week, and are said to be the finest in this section, which, together with the large addition to the school house, and the remodelling of the old portion, with another furnace for heating, give Waterford a more commodious, comfortable, and pleasant school building, with excellent seats, desks, blackboards, etc., which will no doubt answer the requirements of the village for school purposes for many years. A new teacher has been engaged, we learn, making four in all.—*Waterford Star*.

MR. J. D. HUNT, English Master of the Collegiate Department of the Winnipeg Public Schools, was, on Oct. 16th, presented by the pupils of the department with an address and a large collection of books, on the occasion of his resigning his position to enter another profession. Mr. Hunt's fellow-teachers throughout the city made him a similar presentation also. Mr. Hunt's praise as a teacher of literature is in the mouths of all his pupils and colleagues. His leave-taking address to his pupils was both eloquent and instructive.

WE think the report speaks well for the staff and for our high school. But the building is a disgrace to any town and should at once be removed. The town loses mentally, morally, socially and financially, by retaining the present barracks. A new building would attract extra pupils enough to repay the outlay, to say nothing of the increased revenue to the school fund directly. There would be at least thirty or forty extra students here if we had a new building. Each student is worth each year to the town in actual

cash, at least \$200, so that this municipality is losing \$6,000 to \$10,000. Let our Board of Education apply to the council for money to erect new buildings at once and let this time next year see them erected.—*Lindsay Warder*.

THE new high school is progressing rapidly towards completion. Provision will be made for introducing, to the best advantage, instruments for experimenting in physics. Some of these instruments, already made, are nearly 40 feet high. By means of proper apertures in the roofs these can be placed in a suitable working position. This set of instruments will perhaps be the first used in any of the Ontario schools or institutes. The blackboards will be of the very best quality, being completed on the German plan. They never wear out, and the longer used the better they become. An important feature of the new building is the assembly room, in which all the examinations will be carried on, and where the pupils can all meet for school opening every morning, and on special occasions. Besides, it will be convenient for educational lectures, elocutionary rehearsals, and experiments suitable for the public.—*Pembroke Standard*.

AT a recent meeting of the High School Trustee Board the following resolution was passed unanimously. "That having had a conference with the teachers of our high school in reference to the new regulations regarding high schools and collegiate institutes, it is the judgment of the board that Woodstock High School is entitled to take the status of a collegiate institute, and that the necessary application be made to the Minister of Education." * * * The staff now consists of five teachers, each a specialist in his own department. The attendance of students for this term has already reached one hundred and seventeen, seven of whom are preparing for First Class Provincial certificates, and a number for matriculation in law. The preparatory department also is represented by fifty pupils. * * * The result of the late departmental examinations shows that Woodstock High School leads the Province in the highest grade of certificates.—*Woodstock Sentinel-Review*.

OUR *Examiner* contemporary would like to know who the teacher is that wrote misrepresenting the Board of Education to the Hon. G. W. Ross. The writer has neither object nor intention to misrepresent the board. At the last regular meeting of the board a motion was passed to fine teachers who were absent from their duties without permission of the chairman. I was informed that the board intended to include within the scope of this motion any of its teachers who might attend a convention of the Peterborough Teachers' Association proposed to be held in the town this month; also that the board would not grant any part of the Central School to the association for such convention. I obtained official information that such absence was included in the scope of the motion, and that the board would not grant the use of its property for such purpose. I wrote the letter with the consent and advice of the president, and in the capacity of secretary of the association, asking the advice of the Minister of Education for the benefit of the executive.—*William Beattie, Secretary Peterboro' Teachers' Association, in the Review*.

Correspondence.

CHEMISTRY IN HIGH SCHOOLS.

To the Editor of the EDUCATIONAL WEEKLY.

Kindly allow me space for a few thoughts suggested by reading the communication of "Science Master," in the last issue of the WEEKLY. I fully agree with him as to the value of the study of chemistry, and heartily join him in hoping that it may soon have a more prominent place among the subjects for Junior Matriculation. As an elementary knowledge of its facts and principles is of use to almost everybody, few subjects are of more practical value. But it is not the utilitarian element only of this or any other subject that is to be considered by the educationist. His duty is to judge a subject not merely by the character of the information derived from the study of it, but also by its usefulness as a disciplinary agent. As such, there can be no doubt that chemistry if properly taught, is of the greatest value; yet, while this is the case, perhaps no other subject loses by bad teaching more of its utility. The Education Department has certainly taken a step in the right direction in striking off the list of authorized text-books for the use of pupils all works on chemistry. The greatest amount of benefit is derived from the study of this subject when the teacher places his pupil in the position of an original investigator, directs his experiments, and leads him by skilful questions to make correct observations, inferences and generalizations. The pupil, on his part, should, under the direction of the teacher, perform all the experiments, and make, as far as possible independently, all observations and inferences. At every step he should be an interrogator of nature and a discoverer. He should in all cases be required to write neatly a concise account of all that he has done, observed and inferred. If the pupil studies in this way he will soon become expert in the manipulation of apparatus; his observing and reasoning powers will be strengthened; and he will, in the end, find himself in possession of a great amount of valuable information.

With considerable force "Science Master" puts the question, "What sense, at any rate, is there in putting on a text-book and then saying that the student is not to use it?" In this I think that the Department again acted wisely. The object seems to have been to supply inexperienced science masters (such there must always be so long as most of the schools are unable to engage a special science master), with a model in the mode of teaching the subject. A better book than Reynolds' Experimental Chemistry could not, perhaps, have been chosen for this purpose. The experiments are, with few exceptions, simple and easily performed. The directions given are minute, the correct order of experiment, observation and inference, generally followed, and the facts of the science deduced from the experiments are arranged in logical order.

With reference to what "Science Master" regards as a mistake in the book, I believe that it is well in all cases where the number of atoms in a molecule is known, to form the equation so that each of its terms may represent an integral number of molecules, because by an equation of this form a more complete expression of what is supposed to take place in chemical reactions can be

given; yet, as it is customary with chemists to use the simplest ratios in equations when distribution of weight only in chemical change is to be expressed, Mr. Reynolds can scarcely be regarded as in error, when he does so to represent the relative weights only of the elements or compounds entering into the reactions.

I cannot think that there need be any fear of the trouble suggested by "Science Master," arising from students using the work as a text-book contrary to the wishes of the teacher, if they have the opportunity of learning in the way which I have indicated. They will have little desire to study the subject from any text-book, from even the most inviting, for cram. The one method of study has for them all the charm of original investigation and discovery, the other is as distasteful as must always be the learning by rote of any lifeless facts.

F. W. MERCHANT.

Ingersoll, Oct. 28th, 1885.

THE WATERLOO RESOLUTIONS.

To the Editor of the EDUCATIONAL WEEKLY.

SIR,—Would you kindly allow me a few lines in your widely read journal? I am always pleased with the pure and elevating tone of the WEEKLY. In your last two issues you have attempted to reply to the first of the resolutions anent teachers' salaries passed at the last meeting of the Waterloo Teachers' Association. If I rightly understand the object aimed at by imposing a fee, it is the raising of the financial condition of the teaching profession generally; and let us see if that will not be a step towards accomplishing the end. It is a well-known fact that the teacher's calling is made a stepping-stone to all the other so-called learned professions. And why should this be? Simply because a young man may with very little outlay get a certificate, take charge of a school, and make a little money more quickly than working at his intended calling. True, the imposing of a heavy fee will decrease the supply of Third Class Certificates issued yearly, but the large majority of those who do go to the expense of taking out professional certificates will be likely to remain in the profession, consequently there would be fewer changes of teachers every year, and a betterment of teaching ability throughout the Province. If I understand your editorial, you seem to think that when the supply is better in culture and character salaries will increase, or, in other words, let teachers do better work and they will receive better remuneration. If a perfect ideal system of education and ideal teacher were to be reached some time during the present century, then the teachers of to-day might possibly earn their bread for infirm years.

Just as I write, word is received of a young man ousting another teacher by offering his services for \$125 less, and there is every reason for believing that this same young man does not intend following the teaching profession.

Is it not time that teachers were organizing themselves for protection against such evils?

Then the fee of twenty-five dollars is one of degree only, as the Regulations of the Education Department allow Boards of Trustees to impose a fee of five dollars, and the County Board of Examiners an additional fee of two dollars, to pay expenses of examination, etc. The Department is evidently leading up to the system of fees as at other professional examinations. With the literary or

scientific attainments of any citizen the Department has nothing to do, except to maintain a fair standing of scholastic ability from those coming forward for teachers. I scarcely think that such a fee will hinder any ambitious boy or girl who wishes to enter the profession, but it will certainly hinder a number who intend following other callings.

Only the other day I read of one Board of Trustees passing a resolution charging teachers of their high school at the rate of \$5 per day, and teachers in their public schools at the rate of \$3 per day, for days they are absent without the written consent of the chairman of the board. To this, I might ask, do the same teachers receive a like sum each day they are in attendance?

Another board, Belleville, holds its teachers responsible for damages done to their schoolrooms, and deducts cost of repairing from their salaries. I question whether the law will allow this high privilege. Are teachers to sit silent to every order and resolution that emanates from the Department, boards of trustees, etc.? As it is at the present time teachers are mere machines running in grooves.

You will pardon the length of this communication, as it is longer than I intended. Hoping you may find space in your journal for its insertion, I am, yours truly,
TEACHER,
North Dumfries, October 29th, 1885.

To the Editor of the EDUCATIONAL WEEKLY.

SIR,—It is pleasant sometimes to criticize the critical. In the last WEEKLY "Outis" discusses a number of errors in English that he has collected from various sources, some of them from the works of very careful writers. But, alas! your contributor forgets that persons who throw stones should not live in glass houses. On the second sentence selected by "Outis" for discussion he comments thus: "Must we excuse the poor arrangement of the sentence by the eagerness of the writer?" This evidently was intended to mean, "Must the poor arrangement of the sentence be excused because of the eagerness of the writer?" A few lines farther on we have this, referring to the same sentence: "The meaning is apparent, but, at the same time, provokes a smile by its awkwardness." A sentence with an awkward meaning would certainly be likely to provoke a smile. Again, the last example "Outis" takes is dismissed with the remark: "We hope the evening had a pleasant sail." Hope looks to the future; it can have nothing to do with what is past.

Let us hope that hereafter critics will criticize without adding to the already large enough list of "Modern Instances."

Yours truly,
November 2nd, 1885.

T. W. S.

Of the popular American poets Mr. Thomas Bailey Aldrich is editor of *The Atlantic Monthly*, Boston, and Mr. R. H. Stoddard is literary editor of *The Mail and Express*, New York.

CARDINAL NEWMAN, despite his years, is still able to write in defence of his faith, and will shortly print an article in the *Contemporary Review* replying to a series of papers on Catholicism which have recently appeared in that magazine.

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