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THE
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Articles: Original and Selected.

ENGLISH IN THE SCHOOLS.*

BY A. E. CROSS, ADVOCATE, MONTREAL.

The nearness of an object often embarrasses the beholder and prevents him from forming a proper conception of it.

This difficulty is of a nature to be especially felt by one who would write or speak of his own language. He may be quick to detect the faults of others and yet at the same time unconsciously make mistakes of his own. The contact between himself and his subject is so close that it is not always practicable for the writer to give first place to the thing of first importance and keep other things at their proper distance in the back-ground. Moreover, in the active age in which we live, people are either in such haste to become rich or so intently bent upon riding particular hobbies that they do not stop to think upon such a commonplace thing as manner or style in speech as long as the speaker can make himself understood. Hence, we have become indulgent towards error and slovenliness of expression, and sometimes even seem to derive a sort of democratic gratification from playing fast and loose with all rules of grammar and notion of style. Formerly slang was associated in our minds with the locality of the prize-ring and

* A paper read before the Teachers' Convention held in Sherbrooke in October, 1895.

the race track, but it has been reserved to us to witness of late years the inauguration of the use of slang in our church pulpits and religious assemblies. We have become indulgent or indifferent to such matters as these, and as they are only matters of taste we can hold our peace with regard to them. But when people trifle with the meanings and uses of words, then are graver issues at stake than matters of mere taste, and the gravity of the situation consists in that we are in the main unconscious of what mischiefs are wrought in consequence of words being so misused as to lead to mistaken or wrongful belief and action. We are unconscious of the evil results because, as hinted at the outset, the causes are constantly operating in our presence. Observation and reflection will, however, convince us of the reality of these mischiefs. The equivocal use of language has had the effect of practically abolishing oral contracts between men of business. Commercial undertakings are required in practice to be not only put into working but often into very guardedly drawn documents. To speak of a man's word being as good as his bond, in our day conveys the impression that such a man has outlived his age and generation. Just as one would expect under such conditions, people come to take risks as to the lengths to which they may go in reckless assertion and, the pernicious practice being common, we find as a consequence that, though perjury is committed every few days in our courts, but little attention is paid to the fact. The offenders are rarely prosecuted and almost never convicted.

Again, to take a wider range of observation, it may be asked: What is it but an unworthy juggling with the meaning of the word money that is at the present moment convulsing the commercial life of a great nation on this continent, a nation too whose people are ever wont to boast of their cleverness in mercantile pursuits? To illustrate, again: We are ourselves in the midst of a dangerous agitation in favor of relaxing the legal consequences of publishing false statements in newspapers, and our ears are filled with the argument that it is in harmony with the spirit of liberty to allow people to say whatever they choose. It is not to be forgotten that it is no answer to give to one who has been ruined pecuniarily or otherwise by the publication of some perhaps apparently insignificant paragraph, for the publisher to say, "I had no malice against you, I don't even know you. I must sell papers for my living, and if I don't print all sorts of trash people will not buy my paper."

It is well that all of us, and especially teachers and preachers,

should bethink ourselves that words spoken and written are important things and may have far-reaching consequences. It is a dangerous thing for any community to be liable to be deceived by the sophistries of a demagogue. It is a terrible thing when people are content, from indifference or from letting others do their thinking for them, to allow themselves to attach a false meaning to a word and thus to believe a lie. Hear what Thomas Carlyle, a good judge of well-employed words but a keen hater of empty verbiage, has said somewhat to the purpose in hand: "Our pious fathers, feeling well what importance lay in the speaking of man to men, founded churches, made endowments, regulations; everywhere in the civilized world there is a pulpit, environed with all manner of complex dignified appurtenances and futherances, that therefrom a man with the tongue may to best advantage address his fellow-men. They felt that this was the most important thing, that without this there was no good thing. It is a right pious work, that of theirs; beautiful to behold! But now, with the art of writing, with the art of printing, a total change has come over that business. The writer of a book, is not he a preacher preaching not to this parish or that, on this day or that, but to all men in all times and places? Surely it is of the last importance that he do his work right, whoever do it wrong—that the eye report not falsely, for then all the other numbers are astray." (*Heroes and Hero Worship*, p. 147.)

Consistently with the purpose of my being here on this occasion I might proceed to write of the English language as one of a number of subjects in a course of study officially prescribed for the schools of this Province, but if it is to be my privilege to give expression to something which may be of practical utility towards the accomplishment of the objects for which schools exist and for which pupils are sent to school, it is better that what is to be said or written should deal with English, not simply as one of a number of subjects taught in school, but with that language as the vehicle of practically all school teaching. The question which upon the surface confronts the enquirer is: Are we getting from our schools such a training of the pupils in English as we have a fair right to expect, making allowance for the wide margin which must exist between what can be expected and what might be desired? In other words, let me ask: Do pupils in our schools acquire such a knowledge and command of the English language as should satisfy us? and, if not, what should be done to secure better results?

Fault-finding is an easy task, easy under any circumstances, and, with regard to methods of instruction not only easy but fashionable as well. Accordingly, care should be taken not to expect more than can be attained.

In the education which our elementary schools develop more should not be expected as regards the subject of English than that pupils should be able to converse without many violations of the rules of grammar, should be able to read aloud an ordinary newspaper editorial in a way such that a listener of average intelligence would understand without effort what is read, and should be able to write a letter which would convey the meaning which the writer intended it to convey and be free from errors in spelling or serious mistakes in grammar. Speaking broadly, these three attainments, speaking, reading and composition are what pupils are sent to school to acquire.

Results such as I have indicated, teachers scarcely need to be told, are not achieved without greater effort and labour than might at first be supposed.

Outsiders are apt to assume the possession by children of a greater amount of sense and intelligence than they are actually found to possess. Perhaps the raw material with which you have to deal may be of a higher standard than that of which special examination has been made elsewhere in recent years. It is, however, with regard to the children of cultured Boston that Mr. G. Stanley Hall, who, I believe, is President of Clark University at Worcester, Mass., writes as follows. "By the liberality of Mrs. Quiney Shaw I was enabled to make comprehensive studies in 1880 of a large number of Boston children just after they had entered the lowest grade of the primary school." The tactful and experienced questioners were convinced that fourteen per cent. of these six year old children had never seen the stars and had no idea about them; that thirty-five per cent. had never been into the country; that twenty per cent. did not know that milk came from cows; fifty-five per cent. did not know that wooden things came from trees; that from thirteen to fifteen per cent. did not know the colours green, blue and yellow, by name; that forty-seven per cent. had never seen a pig; sixty per cent. had never seen a robin; from thirteen to eighteen per cent. did not know where their cheek, forehead or throat was, and fewer yet knew elbow, wrist, ribs, etc. More than three-fourths of all the children had never seen, to know them, any of the common cereals, trees or vegetables growing. These subjects were chosen because most of them constitute the material of school primers or elementary instruction which

this new science of ignorance shows must make even verbal cram of much matter an element of instruction.

Aside, however, from original ignorance on the part of beginners, there are obstacles in the way of teaching language to pupils of more advanced years of which a few may be mentioned. The inclination to imitate is so strong in children that they will persistently speak as their parents and associates do even when they know how to do better, and you know that the models thus imitated are not likely to be of the best. Young people, again, are so sensitive to ridicule or derision that most of them would rather suffer punishment than be suspected by their associates of "putting on airs." Chiefly, however, there is the great difficulty which consists in the fact that clearness, coupled with readiness of expression, is a faculty which depends upon the development and exercise of powers of observation and reasoning scarcely to be expected except in cases when there has been something of instruction in mental philosophy and logic.

As to the state of affairs which actually exists, there is reason to believe that if the average pupil of from twelve to fourteen years of age were to be asked to describe orally his experiences during a day's visit to the city or a day's excursion to the country, the pupil would, in the first place, be greatly at a loss for anything to say, and thus apprehension of criticism might lead him or her to give utterance to a few laboured sentences without periods between them, though, if the pupil were unconscious of being observed and gave free rein to his speech, his utterances, instead of being sentences, would take the form of interjectional ejaculations. The faculty of expression would be found undeveloped. Again, if such an average pupil were to be directed, for instance, by a parent to write a letter in the parent's name to a relative in the city expressing a desire on the part of the parent to attend a fair in another country, suggesting a period of time within which the date of departure would be fixed and asking for a reply naming a date for departure within the suggested period, there is reason to believe that the letter would not intelligibly express what it was desired that it should express and would contain a number of errors in spelling or grammar at least equal to the number of sentences in the letter. Moreover, as to ability to read, it may be said that our specimen pupil would probably read fairly well anything which he had previously read, but that there would be some effort in grasping and following the meaning of a newspaper article read for the first time. With regard to these

three great objects of common school education it may be said, in a summarized way, that pupils who have gone through the three or four grades of our elementary schools are able to read, though not with freedom, but are unable to compose and write a letter or give a verbal account of an occurrence without experiencing great difficulty and making frequent mistakes. These pupils, however, have generally studied Canadian and in some cases English History, and have acquired temporarily a fund of information about monarchs, explorers, wars, discoveries and such like matters, and have been instructed in geography so as to be able to tell one the names of mountain chains, of rivers and of countries or states bordering on particular rivers, whole masses of information the bearing of which upon the practical affairs of life is difficult to perceive or appreciate.

Manifestly a pupil who could acquit himself creditably in respect of the three requisites which I have particularized is better equipped for business activity than one who has merely developed into a sort of perambulating cyclopædia of historical facts.

If the criticisms to which I have just given expression be unfairly harsh, I trust that you who are in the best position to know the facts will publicly demonstrate my error, because the views expressed are somewhat widely entertained. In the meantime, the proposition here asserted is that the English speaking pupils in our schools ought to be much better educated in the use of their mother tongue than they are, and that their training in this connection is quite disproportionate to the instruction given to them in less important subjects.

It seems requisite to add to these unpleasant considerations the further statement that you cannot lay the blame for unsatisfactory results upon the officially prescribed course of study.

By the course of study, you are required to give instruction under the head of "Reading to pupils in all grades in 'the meaning and spelling of the words of the lesson, the subject matter of the lesson, and committing selections to memory.'" "Special attention to be given to pleasantness and brightness of tones, fluency, clearness and correctness of pronunciation."

Upon the subject of "Dictation and Spelling" useful directions are given for instruction in the way of writing and copying words and sentences from the lesson, from the black-board, and from dictation, according to advancement of the pupils, and for instruction in spelling and definition.

Then, under the specific heading of "English," instruction is to be given to pupils of the first grade by "conversation with

pupils on familiar subjects," by "short stories related by the teacher and repeated by the pupils," in "writing names of objects," in "writing one or more sentences about a particular object," in "memorizing," and "correction of colloquial errors."

Pupils of the second grade are to receive instruction in "completing sentences: Forming sentences containing particular words;" "Writing out the subject matter of a story or of a reading lesson, after it has been talked over;" Memorizing short selections from the "reader," and "correction of colloquial errors." And pupils of the third grade are to be instructed in "Reading and committing to memory interesting and simple selections from the best prose and poetry in the Reader, with questions upon the meaning and allusions of the selections, the meaning of words and the parts of speech."

All this, so far as official direction is concerned, is as it should be, so that the questions as to the practicability of amelioration and the means of accomplishment it must find their solutions in other directions. Obstacles arising from the stupidity of children, from the meddling and want of co-operation on the part of parents and their examples of ignorance, from the incompetency of commissioners and trustees, and from the want of opportunities for more extended training on the part of teachers themselves, must be expected; but, notwithstanding all this, we are justified in expecting improvement.

The first fact which it seems important to mention, as demonstrating the practicability of improvement, is that it has already been achieved elsewhere under conditions not more favourable.

There are at the present time in this province survivors of a generation of men fast disappearing who received their education in the primary schools of Scotland. It may be difficult to establish that teaching methods in Scotland three-quarters of a century ago were of such a kind as should be adopted in our schools; but, in whatever way the result may have been accomplished, pupils in these Scotch schools were so instructed and educated as to have at command in mature years a fund of information available at any time for the recurring needs of commercial or public life, coupled with the ability to express themselves, even without prior preparation, in a clear and intelligible manner.

Doubtless many of you have been eye-witnesses of occasions at meetings when addresses were made with force and point and ready knowledge of pertinent facts by elderly men whose only

school education was that of an obscure Scottish parish school, whereas on the same occasions, intelligent Canadians educated in our high and model schools were found unable to give expression to anything worth listening to, having seemingly forgotten anything which they may have memorized of the matter in hand or being bereft of the power to express what they may have known. It may be urged that this change for the worse is a result of changed conditions of life, and that, in this era of the daily newspaper and the cheap publication, people's mind are so constantly gorged with omniverous reading that as a consequence memory power is greatly impaired and the faculty of expression is become almost dormant through disuse, since one who is always busy reading is not in a position to converse with much readiness. If this be so, it is surely the business of our educators to remedy such a state of affairs as far as possible by creating different conditions. We constantly boast of the superiority of the age in which we live to all previous ages, and such boasting is usually considered a healthy sign, but we are often deceiving ourselves in indulging in this self-complacent practice. We make the mistake of measuring the importance of things by the amount of notoriety which they command and of accepting as true and right that which persons around us habitually say and do. But in practical reality it is the commonplace and seemingly insignificant things which are most important. It is the "small fellowship of daily commonplace" and such little things as manner of speech and behaviour that make life agreeable or the opposite. It is a poor policy then to lose sight of the importance of accuracy and clearness in our speech and writing. It is a mischievous error to reason that, since we all can speak English well enough to make our wants known, we need not have pupils waste time upon it in school but should rather have them become learned in other subjects. Many of the so-called "public problems" which are the subjects of popular concern and which sometimes develop its dangerous agitations would suffer an early collapse into oblivion or insignificance were people in general to have their ideas cleared up as to the meaning of some word or expression in common use about which some delusion is being generally entertained. Reference has already been made to confusion of ideas about the meaning of the word "money." In the United States at the present time thousands of people apparently believe that an act of Congress declaring sixty cents worth of silver to be worth one hundred cents would really make it worth one hundred cents, and are angry at being denied such a

simple means of making every two dollars in silver which they may happen to have, worth about as much as three. It should be within the power of the school teachers of the Republic to make it certain that another generation shall not pass under the same delusion. Again, it seems that it should be possible for teachers to disarm destructive socialism of one of its pet fallacies by distinguishing between the meanings of the words "money" and "wealth," and making the young generation understand that increase in the wealth of one man does not necessarily withdraw wealth from other men.

In this Province are still to be found by the score people who are preyed upon by skilful talkers, such as patent medicine vendors, lightning-rod agents, sellers of seeds and trees which do not germinate. People are still found who are willing to sign their names to papers the purport of which they do not understand, only to discover too late that they have made themselves parties to promissory notes or obligations, or who will subscribe for books with ornate binding outside and pictures within. Again, as one might expect, people who are in a state of habitual uncertainty of mind about their affairs probably soon find themselves tangled up in law suits. The testimony of witnesses is not likely to clear up the affairs of a person who does not understand them himself. The witnesses, too, are by no means free from the same failings; hence the frequent farce of half a dozen witnesses testifying to as many inconsistent versions of the same occurrence. At the risk of being suspected of going beyond the limits of the subject in hand I have dwelt thus upon a number of common failings of our time, because in reality our methods of school instruction have more to answer for with regard to them than would at first thought be suspected. If these unfavourable characteristics are not at the outset seen to arise from defects of education, it is because education has been unduly directed into channels other than those of practical importance. Persons whose memories are clogged with historical occurrences and dates, with geographical information of secondary importance, or with hobbies of fashion, are in danger of going astray in matters of immediate practical concern.

There is not one of the evils which have been referred to which would not be greatly mitigated by an effective common school education in the meanings and use of the words of the English language and a reasonable training of the faculty of embodying ideas in words. The evils are serious enough to call loudly for remedy, and the remedy is simple in kind,

though it involves great labour in application. Let it be noted, however, that you labour under much more favourable conditions, as regards instruction in English, than have existed in the past.

In the first place, we find that modern inventions and activity have given us easy and rapid access to the great centres of learning and culture in our own land and in other lands. Our language, too, is in use in all countries, and its use is spreading at an increasing measure of speed. Mountain ranges and river courses do not now mark the limits at which our dialect ceases to prevail, and another is spoken. In our own Province the English spoken to the west of Hochelaga is not distinguishable from that spoken to the east of that point, and it is no longer safe to conclude that a person who speaks in a thin nasal tone is an inhabitant of the Eastern Townships. Our young people will not cling to local conditions of language with as much tenacity as formerly. Moreover, well-worded and accurate specimens of English composition are constantly before us and about us in the shape of books and newspapers. I would like to be able to add that illustrations of well-spoken English are commonly to be heard from the pulpits of our churches, but still it may be affirmed that such are, at least, occasionally to be heard. In short, we have abundant opportunities of hearing English well and correctly spoken, and we have all around us, in profusion, models of correctly worded English in printed form. People educated in our schools ought, therefore, to be able to impress themselves as well and effectively as men whose only school instruction was imparted to them in the parish schools in Scotland over fifty years ago.

A point has been reached at which may be introduced the question, What is to be recommended by way of amendment or attempt at amelioration of existing methods? It is a question to be answered as far as possible by the ablest of our educators rather than by a spectator from the outside, however interesting and well meaning the latter may be. Accordingly, whatever may here be said in the form of suggestion or recommendation is to be regarded as the utterance of one who is not a teacher by profession or experience, and whose chief advantage probably is that being a beholder from a distance he may have observed some things the importance and logical bearing of which may not have been manifest to an active participant.

Editorial Notes and Comments.

The festivities connected with the closing of this year and the opening of the year 1896 will have come and gone before the December number of the EDUCATIONAL RECORD shall have reached our readers. During the ten years or so that the writer has had to do with this periodical, there have always been exchanged between reader and editor the pleasantest of greetings at this time of the year; and the reflection has somehow or other never seemed to be a mere formality, as the greetings of the New Year so often are. Again we join with our readers in the heartfelt prayer which has in it the sympathy of a true co-operation "God bless us every one," and we trust that no one will for a moment consider that there is any formality in our greeting this year any more than there has been in our best of good wishes in the years that are gone.

—At this time of the year a suggestion comes from a publicist on the other side of the line which has about its tone the good cheer of Christmastide. In a word he asks our rich men to establish a loan fund for those who have no means to complete their course of study. The money is to be paid back after the students graduate and begin to earn their living in professional careers, and to be loaned again to other students. It has often occurred to us that the men who endow Colleges, usually giving their money to the largest and most prominent institutions, could do very much greater good if efforts were made in each college to establish a loan, especially in the smaller colleges, and in the normal schools, where students who come well-recommended and indorsed may borrow sufficient money at a low rate of interest to carry them through a full course of study, the money to be refunded later from the savings of the beneficiaries. In a moderate way the gentleman who has made the suggestion says he has tried the plan, using a part of his own limited means, and lending the money without interest, and he is glad to say that in every case the money has been promptly returned as soon as the graduated student has had an opportunity to save and accumulate.

—An outsider in the *Ladies' Home Journal* thus discusses the question of "How to be a good teacher," and her words are well worth weighing. Good health is particularly necessary for the teacher, as the labours of the school room draw so constantly on the vocal, mental and nervous forces. Teachers need to be continually on their guard against anything which can interfere with their physical well-being. This precaution has a moral

significance and importance. Of course the more liberal and thorough the education, the better the foundation on which the teacher's work is based; but there have been many great scholars who have proved very poor teachers, for the possession of knowledge by no means implies the ability to impart it. It is safe to assume that natural talent in this direction is the best possible test of the "born teacher." In addition to what is usually included in a liberal education, a knowledge of the comparatively modern science of psychology is indispensable, familiarity with the laws which control the development of the mind, the material upon which the teacher exclusively works. If she succeeds in her work without this knowledge, her success will result "more from good luck than good looking to," or be the outcome of a happy intuition which, unfortunately, few possess. This branch of science has but lately been accorded its proper place in our curricula, but every day strengthens its claim to be considered the corner stone of every educational structure. Martin Luther asserted in his cast-iron style of rhetoric: "Unless a schoolmaster knows how to sing I think him of no account." Such a test would materially decrease the number of pedagogues; nevertheless, it is true that such ability is of the greatest service to the teacher. The physical benefit resulting from singing is sufficient reason for its use, even if no other existed; but it is peculiarly valuable as a source of enjoyment to children, and a great aid in the preservation of order. Even a little knowledge of drawing places a mighty power in the hand of the teacher. Nothing so much helps to make instruction clear and impressive as simple and rapid illustration, particularly in the primary grades. At present these two accomplishments—improperly so termed, for they are really essentials—are required in most schools. The children of to-day, who are the teachers of to-morrow, are receiving thorough instruction in these two matters, and experience proves that it is almost as incentive for them to sing and draw as for a bird to fly.

—As an addendum to Miss Le Roy's statement we have what Principal Peterson has said to the teachers of the province, as well as the following recommendation to all engaged in school-work to acquire a knowledge of the child's mind. The child's right mental development, says a prominent superintendent, is in accordance with law, and it is the duty of the teacher to find out and to know how she may best present the truth to his understanding. The bright teacher may learn this after years of experience, but she comes to the employment of right methods only after many failures and at the expense of the

children whose minds are either not developed at all or in the wrong direction. The influence of the teacher in her peculiar domain is immense; she has the opportunity to mould character, to stimulate observation, develop thoughtfulness, as no one else can, and it seems more than negligent to leave this important work to the young and untrained whose only reason, often, for entering the teaching profession is to earn a livelihood for a few years until something more desirable offers itself. Is it not too much to expect that our young graduates, however bright they may be, ignorant of the theory of education, with little or no practice in imparting knowledge, can enter at once upon the successful discharge of the teacher's work.

—An excellent suggestion comes from a Montreal paper. "Every summer visitor," says the *Star*, "comments with approval upon the number of small squares and parks, aptly termed breathing spaces, which the city possesses. They are found in all parts of Montreal, are very creditably kept and well provided with benches. To realize how greatly they conduce to the health and pleasure of the population, one should observe the number of people who frequent them in the evenings. They are a positive boon to weary people who have been cooped up all day in the office or the workshop. As a place of resort for the children, however, they can never be satisfactory. The child wants to have room to play around. The boy who sits quietly content on a bench in a public square is an abnormal specimen of the tribe. He cannot be perfectly well. He ought, in the nature of things, to be capering about. To attempt that in most of our centrally situated squares is to court disaster. If a child passes the stern boundary of the public paths he is confronted with the encouraging legend: 'Please keep off the grass,' and in case he should be tempted to evade the warning by means of a lingual subterfuge, he is told: 'N'allez pas sur le gazon.' If he were, in the forgetfulness of his exuberance, to pluck a flower, oh, horror!—we forget the exact penalty, but under the new Criminal Code it is probably something less than twenty years penal servitude. Under the circumstances, children are compelled to play either in the exhilarating purlieus of the back yard, or to resort to the dusty streets, to the consequent derangement of traffic, and the lesser evil, apparently, of danger to life and limb. Promiscuous play in the streets tends to the mending of neither the morals nor the manners of the children. They ought to have places set aside for them where they could have a game of ball, or trundle a hoop, without being a terror to their parents or a nuisance to the neighbors."

Current Events.

At the last meeting of the Montreal Association of Teachers, Dr. Peterson, of McGill University, gave a highly instructive address on the "Training of teachers." A pleasing evidence, he said, of the advantages of educational fraternity was that they should have brought themselves together thus as an association. On the other side of the Atlantic teachers' guilds had done much for teachers. It is of the highest importance that teachers should receive every possible advantage of training before taking a place in that great system of machinery of education. A good teacher and a bad man or woman are altogether incompatible. People spoke of born doctors, lawyers, teachers, etc., but efficiency and success came through training rather than the ability born in the individual. The speaker went on to describe the system of training teachers in England and Scotland. In concluding he said: "The future of a country rests to a far greater extent than is generally recognized on the education of its youth. In my opinion the teacher occupies a position as important as that of the principal servants of state; there cannot be a higher or more important charge. We must therefore strike for higher principles in the position which we occupy."

—The graduates of McGill University, Montreal, living in and near New York, have formed a society to be known as the New York Graduates' Society of McGill University. The following have been elected officers of 1895-96; President, the Rev. Dr. Edward H. Krans, rector of St. Ann's Church, of New York; vice-presidents, Dr. Wolfred Nelson, of New York, Dr. James Albert Meek, of New York, and William de Courcey Harnett, of New York; secretary, Robert A. Gunn, of New York; treasurer, Dr. Hiram N. Vineberg, of New York; Executive Committee, the Rev. Charles Bancroft, of Nashua, N.H.; Dr. George C. Becket, of New York, and James E. Stevenson, of New York. The graduates of the various faculties of McGill University, living in the United States, number nearly five hundred, of whom fifty live in and near this city.

There has been a change of school superintendents in the city of Los Angeles, and the strong man again has had to go to the wall for the time being. This is what is said about the matter: "Hereafter let no man attempt to introduce improvements or innovations of any kind into the Los Angeles school system, on pain of incurring the displeasure of the Board of

Education, and, by all means, let us have for the next superintendent, a man without ideas, who has never been known to leave the beaten track; who believes in machine education because it saves labour for the teachers, and who will enter into a solid agreement before he is engaged to do nothing calculated to cause either teachers or pupils to think independently of the educational machine. Let us have a regular 'back number,' and then we will all be happy."

—Of late it has been apparent that the people of Japan will no longer co-operate with foreigners in the educational advancement of the country. The Japanese regard themselves as fully capable of managing their own affairs. They do not bear hatred toward foreigners, but the government insists that coöperation between its subjects and missionaries and teachers is no longer needed. The results of the late war have caused them to feel they are the equals of any nation.

—The school of pedagogy at Toronto is to be removed to Hamilton, in order that the teachers in training may have the advantage of a practice school, the pupils of the Hamilton collegiate institute being available for that purpose. A new building is to be erected, and the school is to be settled in its new quarters a year from this fall. It is proposed to change the name of the institute from the school of pedagogy to the Ontario Normal College.

—Notwithstanding the fact that Chicago built eleven school-houses last year and rents 213 rooms in private dwellings for school purposes, 11,000 or 12,000 children are deprived of school accommodations. The city superintendent of schools says that twenty buildings of average capacity are needed. These figures, however, do not cover the inadequacy of accommodation, for many thousands of children in the first grades attend school only part of the day, their places being taken by others for the second session. No doubt the number of children receiving partial instruction is greater even than those who do not attend school at all.

—The management committee of the Toronto public school board met lately and passed a resolution: "That henceforth whenever a vacancy shall occur in the principalship of any school containing eight or more class rooms the same shall be filled by a male teacher holding a first-class certificate and having at least five years' experience in teaching."

—There are 40,000 New York schoolboys now members of the Boys' Anti-Cigarette League. Branches have been established in ninety-five grammar schools in the city, and in many

of the primaries. The boys are organized in each school, have their own officers, and wear their buttons as a badge, and are pledged not to smoke until they are one-and-twenty. It is said that the boys take up the subject with earnestness and enthusiasm, and that very few to whom it is presented fail to enroll themselves.

—Mr. A. F. Newlands, writing master, and one of the founders of the vertical system of writing, has just issued a new copy book for a leading New York, Boston and Chicago publishing firm. The book has been copyrighted in the United States and entirely printed there. His first copy book, lithographed in the United States, but printed in Canada, was pirated, and no claims could be established, as the law provides for the protection only of such books as are published in their entirety in the United States. Mr. Newlands says the system is being widely adopted in all parts of the United States and Canada.

—It may interest American teachers to know that school excursions, after the plan described by Dr. J. M. Rice in the *Forum* about a year ago, were conducted throughout New Zealand this year for the first time. They were a complete success, and public sentiment is in favor of making them a permanent feature of the state school system. Mr. William Jenkins, of Dunedin, is particularly active in urging the continuance of these excursions. The *Otago Daily Times* devoted a long editorial article to a description of the benefits derived from the experiment and discussed the possibilities of still greater success in the future. The railway companies encouraged the excursion by planning and putting into effect cheap trips for school children accompanied by their teachers.

—"The farm pupil system," says the *Witness*, "is responsible for swindling a great deal of money out of fond parents in England and for bringing into Ontario a very undesirable class of immigrants. Why any Englishman, however wealthy, should be asinine enough to pay for the agricultural training of his son in this country is incomprehensible. A smart young man who is willing to learn the art of farming as it is practised here, can get plenty of good places where he may have his board and lodging for his work for a few months. One year on an Ontario farm is as long as he would stay, if he is going on to the North-West, for there the methods are so different that it would pay to spend part of his pupilage period in supplementing what he learns here. The ease with which and the extent to which this kind of extortion is practised are simply amazing, and

cause people here to form a very low idea of the average Englishman's sagacity. The system, moreover, does irreparable harm to any young man, by causing him to feel a disinclination to work, and a very strong desire to have a good time." It would be much better to throw him on his own resources for a year or two, care being taken to get him, if possible, into the hands of an intelligent and upright employer.

—The Ontario Educational Association meeting bids fair to be the most interesting, if not the most important it has ever held. Owing to the change of date from midsummer to Easter the meetings are much more numerously attended than they used to be, and as the evening sessions are the only ones held under the auspices of the Association at large they are made as attractive as the Board of Directors can make them with the limited means at their command. At the next meeting the first evening will be given up, as heretofore, to a social function of the nature of a *conversazione*. The other two evenings will be occupied with addresses from distinguished educationists. Those who will be invited are President Eliot, of Harvard, Principal Peterson, of McGill, President Gilman, of Johns Hopkins, Dr. Scovil, of Massachusetts, and Principal Parkin, of Upper Canada College.

—There may not be much in it, and yet our teachers ought to know what some people are prepared to say, should there be anything in it. A Toronto paper has lately said, that one morning when the air was raw and almost wintry cold, and the ground covered with snow and slush, the children of the city schools, or of some of them at least, were compelled to form line out in the yards and stand shivering there until the order to march into the schools was given. "On re-assembling in the afternoon, whilst the soft, damp snow was falling rapidly, tiny boys and girls, some of them without warm clothing, and with worn-out boots and shoes, had to stand until they were wet through and pinched and blue with cold, before one of them was allowed to enter the warm school." One of the teachers, when remonstrated with for his seeming cruelty, said, in substance, that teachers have no alternative. Their hands are so tied with rules and tape, that they cannot follow the dictates of their own judgment and common sense in such a matter. If this be so, it should be looked after by parents who wish to save their children from early graves. If school boards in city or country, or any higher officials, are responsible for such things, one can hardly help wishing that they should themselves be exposed, hatless and shoeless, and clad in thin, ragged garments.

to like inclement weather for a much longer period, corresponding to their years, in order that they might know how it feels.

—The Frontier Association of Teachers convened in the Temperance Hall, Ormstown, at 7.30 p.m., on Thursday, November 22nd. The hall was literally packed with an audience which fully appreciated the short but pointed educational addresses of Inspector McGregor and Rev. Messrs. Morrison and Wright; the spirited dialogue, recitation and choruses of the young people; the excellent vocal solos of Miss Lockerby and Dr. Bazin; the splendidly rendered xylophone and vocal solos of Mr. Shanks; and the delightful music of the Ormstown Orchestra.

At Friday morning's session, excellent papers on "How to make Teaching a success," "School Discipline," and "Naturalness to pupils," were read by Miss M. Brown, Principal Ford, and Miss N. Ruddock, respectively. Each was followed by an animated and instructive discussion.

In the afternoon, taking Dr. Harper's hints on "Sentence Drill," as the basis of her plan, Miss Nolan showed that *English*, whether spoken or written, and its great ally, analysis, could be best taught by sentence building.

The next, very instructive paper, "How to secure Attention," by Principal Holiday, should be the property of every teacher.

Miss Bazin followed with apt quotations from able authors, excellent illustrations, and clear thoughts on Kindergarten gifts and methods.

Music enlivened each session. The zealous efforts of the executive committee, so efficiently seconded by the harmonious plans of Principal Ford and staff, together with the cordial hospitality of Ormstown's kind friends, made this Convention a most enjoyable and successful one.

—Mr. George Johnson, Dominion statistician, has been investigating the cost of education in the several Provinces of the Dominion, data having been collected for comparative purposes for the years 1888 and 1893. The figures show that Manitoba expends proportionally more upon education, that is, for public schools, than any other province in the Dominion. Making a comparison between 1888 and 1893, it is shown that in Ontario expenditure upon public schools has remained stationary at \$1.87 per head of the population. In Quebec it has increased from 81 cents to 87 cents. In Nova Scotia it has fallen from \$1.51 to \$1.45. In New Brunswick the expenditure in the year 1888 was \$1.26 per head, and in 1893 it had

increased to \$1.31. In Prince Edward Island it rose from \$1.36 to \$1.40, and in Manitoba from \$1.57 to \$2.02. British Columbia increased her educational expenditure in the same period from \$1.40 to \$1.87. In connection with the latter figures it is to be borne in mind that there is no public assessment for education in the Pacific Province. Taking the average of all the Provinces, it shows that the people of the Dominion are now paying at the rate of \$1.56 per head of population for the purpose of public schools, an increase of 6 cents in the *per capita* expenditure since 1888. It appears also that Ontario spends 7 per cent. of the total provincial revenue in Government grants to schools; Quebec spends 4 per cent., Nova Scotia 23 per cent., Manitoba 17 per cent., while in Prince Edward Island the grant to education is 54 per cent., or more than half of the total yearly revenue of the Province. The statistician has also made a computation of the proportion of educational expenditure which the government and the people provided respectively. Thus he finds that in the Province of Ontario 93 per cent. of the total expenditure on public education is paid directly by the people, 7 per cent. only being contributed by grants from the provincial exchequer. In Quebec the proportion is 87 per cent. by the people to 13 per cent. by the province. In Nova Scotia the people pay 76 per cent. and the province the remaining 24 per cent. In New Brunswick the proportion is 60 per cent. and 40 per cent. by the people and the government respectively. The people of Manitoba pay directly in school taxes 21 per cent. only of the cost of public schools, the government contributing the remaining 79 per cent.; and in Prince Edward Island the proportion is very much the same, viz., 23 per cent. by the people and 77 per cent. by provincial grant.

Literature, Historical Notes, etc.

The following article on Standard Time by Professor Eugene Smith will place within the reach of our teachers material out of which may be planned a very fine oral lesson. It must be confessed, as Prof. Smith says, that the chapter on longitude and time, as given in the ordinary school arithmetic, is not particularly inspiring. It consists of matters of no special interest or value to the student, and with difficulty can the teacher secure any enthusiasm on the part of the class. When we consider what there is that is essential, what we have of general informa-

tion in the subject, we find two matters especially prominent; first the question of where the new day begin on the earth's surface, which involves a date line, and second the question of standard railway time. Both of these matters are of such recent interest as to have found no place in our arithmetics, and so the most attractive features of the subject are entirely wanting. It is to supply this knowledge in the way of standard time that this article is written.

It is now about a dozen years since, through the efforts of Sanford Fleming of Ottawa, W. T. Allen, secretary of the General Railroad Time Convention, in this country, and several other prominent men, that standard time first became an assured fact. Adopted by some roads in October, and by others in November, 1883, within a year it was almost universal on all lines in this country, and eighty-five per cent. of all the towns of more than ten thousand inhabitants were using it.

It is suggestive of the progressive spirit of the Japanese that the people of that Island Empire, whose recent prowess in arms as well as in arts has astonished the world, were the first to follow the United States in the use of the system. On the return of Professor Kikuchi, of Tokio, from the Meridian Congress held in Washington in 1884, he suggested the system to the government, with the result of the adoption of the time of 135° (9 hrs.) from Greenwich, in July, 1885. It is, however, within only a very short time that other nations have followed this good example and adopted the system.

It is well at the outset to understand the difference between standard time and uniform time, as technical expressions. France and Algiers use the uniform time of Paris. Ireland uses the time of Dublin. Greece uses the time of Athens. For railway purposes Spain and Portugal use respectively the times of Madrid and Lisbon. These are examples of uniform time. But standard time has a broader meaning. By this system the world is divided into so-called zones of about 15° each, whose time is regulated by hour meridians from Greenwich, viz., $+15^{\circ}$, $+30^{\circ}$, $+60^{\circ}$, . . . $+75^{\circ}$ (which regulates our eastern time), $+90^{\circ}$ (which regulates our central time,) $+105^{\circ}$ which regulates our mountain time), $+120^{\circ}$ (which regulates our Pacific time.) There are also the meridians of 0° (which regulates West European time), -15° (which regulates mid European time), and -30° (which regulates east European time.)

In Europe, Great Britain, Holland and Belgium use west European time. The low countries began the use of the new system October 1, 1891. Prior to that date Holland

had generally used Amsterdam time, Belgium that of Brussels. The latter country has quite generally shown a progressive spirit in adopting the new system, but most Dutch towns show their conservatism by still adhering to that of Amsterdam. Some sections of the country, as that of Groningen and vicinity, use local time, while Bergen op Zoom uses west European time and Maastricht uses mid European time. There was some expectation last spring that the government might interfere to bring about a complete uniformity.

Mid-European time is used almost universally in central Europe. Sweden is often mentioned as having been the first country to adopt it, even before the United States set the example. It is true that she adopted a uniform system in 1879, but it is based on the meridian 3° west from Stockholm, that is $-15^{\circ} 3' 30''$ from Greenwich, and hence Stockholm time differs 14 seconds from mid-European time. Since, however, the difference is so slight, Sweden is considered as using the latter. In Denmark mid-European time has been generally adopted since the beginning of 1894, and in Norway since the beginning of the present year.

The states of South Germany began the use of mid-European time April 1, 1892, and the rest of the Empire followed just one year later. Prior to these unifications, there were five systems in use in Germany, those of Berlin, Munich, Stuttgart, Carlsruhe, and Ludwigshafen. At the present time the uniformity in Germany is perfect.

Italy adopted the system for herself, Sicily and Sardinia, November 1, 1893, this changing 10 min. 5 sec. from the time of Rome which had formerly been used. The railways have gone so far as to use twenty-four-hour clocks, which are also used on two or three important roads in Canada. This is a return to an Italian system in use some generations ago. People generally, however, use the 12-hour dial.

Switzerland is one of the most recent converts to standard time. Her railways adopted the mid-European system June 1, 1894, and it is now in general use all over the country. Nowhere might greater objection be made to the change, the difference between mid-European and local time being often half an hour or more, while very rarely is the difference less than twenty minutes. Yet in spite of this fact, in no country has the system been more readily and generally adopted, a circumstance that speaks well for the progressive and practical spirit of the Swiss people.

Austria-Hungary, adopted mid-European time for her rail-

ways, posts and her official business generally, October 1, 1891. but more difficulty has been experienced in introducing the system than in other countries of central Europe. Certain cities, as, for example, Graz, in Styria, lying near the time meridian, naturally use the new system, and certain others like Krakau, in Galicia, although at some distance, use it. The city of Krakau introduced it December 6, 1891, and it is now used by all towns along the Carl-Ludwig R. R. to Rzesow. Farther east several towns use it, others adhering to their local time. Other cities like Brünn and Vienna are conservative enough to adhere to their local time for no apparent cause. One difficulty in the way of its adoption has been the opposition of the Academy of Science at Vienna to the whole system, but in spite of much mediævalism, most cities and towns have come to use it, not under compulsion, but, as a correspondent writes, "from their store of common sense." In Transylvania, where the difference in time exceeds half an hour, Klausenburg still uses local time as doubtless do other towns, although mid-European time is officially used. The fact that the latter is used in the schools assures its ultimate adoption throughout the country.

Since September 19, 1891, Servia has used mid-European time on all the railways, and for somewhat over a year the public offices and schools of Belgrade have done the same, but the ignorance and conservatism prevalent in the smaller towns have made the movement somewhat backward.

Passing eastward, Roumania shows her progressive spirit by using east European time. Bulgaria also uses it as do the European residents in Turkey. In Turkey the Mohammedans still use Turkish time, which is regulated by the sunset, and the "unspeakable Turk" is never in a hurry to make a change.

As has been stated, Greece uses the time of Athens, which differs 25 minutes from that of -30° . It cannot be doubted that she will eventually adopt east European time.

The extension of the Russian railway system must soon bring that country face to face with the problem in the same way that the United States had to meet it.

At present in Finland the railways use Helsingfors time, except for that part of its course the railway to St. Petersburg uses the time of the latter city. In civil matters local time is used throughout Russia, but the railways in the west use St. Petersburg time and those in the east that of Moscow.

The only part of Africa which possesses a railway system of any extent is Cape Colony and its vicinity. When the eastern and

western railway systems were recently joined a form of standard time was adopted, viz., that of $-22\frac{1}{2}^{\circ}$, which differs an hour and a half from that of Greenwich. David Gill, Her Majesty's astronomer at Cape Town, reports that "the change of time was made simultaneously throughout the Colony without the slightest hitch or inconvenience. A week after it took place it seems to have been generally forgotten that any change had been made. The system has worked so well that the uniform time of Cape Colony has at once been adopted in the Transvaal and Orange Free State. It is only to be regretted that when the change was made the meridian two hours east of Greenwich was not adopted, as I strenuously urged it should be."

In India the uniform time is that of Madras ($-80^{\circ} 14' 51''$), where the Indian observatory is located. It would be an easy matter for the western part of India to use -75° , and the eastern part 90° , and this will probably be the final outcome. At present Madrid time is commonly used in the Punjab, the western provinces, and the Madras Presidency. In Bengal the people use that of Calcutta, about half an hour ahead of that of Madras or railway time, while in Bombay the time of that city, half an hour behind that of Madras, is used.

Another recent convert to standard time is Australia, which has adopted it this year. South Australia uses the time of -135° . New South Wales, Queensland and Victoria use that of -150° . Western Australia is expected soon to adopt that of -120° , and Tasmania that of -150° . Reports recently received show that wherever the system has been adopted, there seems to be no desire to adhere to local time.

There are five systems of standard time in North America, the four already mentioned in the United States and Canada, and the Intercolonial, that of $+50^{\circ}$. Mexico has not adopted the system, her railways using the time of the capital, $+99^{\circ} 6' 40.5''$, and the various towns using their local time. As the railway time differs only $23\frac{1}{2}$ minutes from that of our meridian, the adoption of the latter is sure to take place.

In general throughout the United States and Canada standard time is in use. The railroad time tables give only one city on a dividing line that uses local time, and to our regret that city is Detroit. A few other large towns, and only a few, still adhere to the ancient scheme in spite of the advantages of the uniform system. This conservatism is often based on the supposition of some people that a change of a few minutes would discommode the schools and factories, not knowing that in Switzerland a change of half an hour was made last year

without any commotion or discomfort. Others are afraid of violating the Sabbath, unmindful of the fact that Sunday lasts forty-eight hours on the whole earth, and it is merely necessary for any place to take out twenty-four. Others say "Give us God's time and not man's," unmindful of the fact that no civilized people use actual sun time. A correspondent in Cape Colony writes that he knows only one person who attempts to adhere to local time—an old Dutchman who persists in going to church ten minutes late, so prejudiced is he against the change. The progressive spirit of the Dark Continent may well be appropriated by some of our smaller towns in Michigan, where the history of this great revolution, brought about within three or four years in nearly all civilized countries of the world, may well be read by the few remaining advocates of the inconvenient system of the past.

Practical Hints and Examination Papers.

—A contributor sent to *Intelligence* the following twelve questions which a reader of that well-conducted journal answered as subjoined. They are well worth considering by both teachers and commissioners.

Questions.

1. Why the rising generation are such poor spellers.
2. Why pupils are so inaccurate in their mathematical processes.
3. Why there is so little power to attack something new and study it out without help.
4. Why Superintendents and Supervisors so soon forget the difficulties and perplexities of *actual school-room work*.
5. Why Boards of Education expect the teacher to make "bricks without straw" and refuse to furnish suitable apparatus but still demand the best results.
6. When the crowding of courses of study will cease.
7. When the halls and stairs of school buildings will be covered with drugget.
8. When the glaring white walls of school-rooms will be tinted some pleasing color.
9. When school and school work will not be the alleged cause of all the maladies that American youths are subject to.
10. When physicians will occasionally not demand, when prescribing for childish illnesses, that the patient be taken out of school.
11. When American mothers will spend less time discussing their children's "nervousness."
12. When competent oculists will visit schools at stated intervals, on the authority of the Board, to test pupil's eyes and prescribe for those with defective vision.

Answers.

1. Because hours were devoted to spelling where twenty minutes are used now. Pages were pronounced daily by the teacher, while twenty-five words once a day constitutes a lesson in the schools of to-day. Pupils do not hear accurately.

2. Inaccuracy in mathematical processes is the result of cram. The pianist must practice the scales and simple exercises until he acquires precision of touch and rapid execution.

3. He may understand the theory, read his notes, and remain a wretched performer. Drill in rapid addition, subtraction and multiplication is required as well as reasoning. Know what you are after, then go ahead—More finger exercises.

4. Superintendents and Supervisors forget the difficulties and perplexities of actual school-room work, just as one forgets the weariness of the ascent of a mountain when standing on the summit; things below look small. The rugged path is hidden from view. "On the heights there lies repose." Pull your sled up to the top before you rest.

5. Boards of Education give teachers some credit for originality. I have seen better teaching in geography done with a pumpkin on which the meridians and parallels of latitude were marked with a jackknife, then with the best globes ever manufactured.

6. The crowding of the graded courses of instruction will cease just as soon as a committee of practical teachers from the different grades will prepare the course. Experts chosen because they are familiar with the subject.

7. Hall and stairs will be covered with drugget, and the aisles of school-rooms with matting, pictures will adorn the walls so soon as the principals and teachers become sufficiently interested in the beautifying of their school-rooms to make the *first effort* themselves.

8. Where there is a will there is a way. A true artist makes an artistic surrounding for himself.

9-10. Physicians will not insist that children be taken out of school for every childish illness, if the child is happy in school, not harassed with threats of being *put down* when unable to keep up with the class. Health and happiness are as important as book learning. Under the direction of skilful teachers health is not injured.

11. As soon as the mothers are educated up to the standard that nervousness is the result of infringing upon some law of nature, that to talk about *nervousness* is out of fashion, that it is as bad form to speak of it as of *biliousness* and kindred old-fashioned ailments, children will cease to be afflicted with nerves.

12. Oculists will probably not be required in rooms where intelligent teachers now and then test the eyes of pupils who find it difficult to see their work. Call for a consultation with parents and recommend that the child be taken to an oculist. Teach a proper care of the eyes, see to it that the light falls properly upon the

work. Make life a burden to the Principal and existence a misery to supply department until proper shades are provided for the windows.

—The pedagogic impulse to create devices for awakening the interest of the pupils becomes sometimes a craze for novelty. Change at any price and change of any kind is clamoured for. It is a trite saying that change is not progress. It is more apt to be movement in a circle or even retrogression. An amusing example was lately furnished in educational circles. A superintendent of rural schools defended their want of classification as an advantage. It was individual instruction, and as such, an improvement over that of the graded school of the city. His reactionary movement received the support of some of the advocates of educational reform on the ground that it was a new departure. This happened at a time when one half of the school children are still taught, or rather allowed to memorize their textbooks by this method.

—There are good days and bad days in school. There are days when even good children are naughty—or may be made to be. The cause of the bad day has not been satisfactorily assigned; but such days must be provided for. The teacher should be sprightly and smiling on the bad day; then she is full of encouragement and ready with devices; there will be bright songs and novelties that break the charm and cause the tendency to laziness, mischief, and disobedience to disappear. To meet the rising tide of evil with force shows bad judgment; the bad day is often brought on by want of tact.

—How some teachers waste time. By: 1. Ignorance in organizing classes. 2. Giving unnecessary directions. 3. Coming to school without a definite plan of work. 4. Speaking when pupils are not giving attention. 5. Giving orders and immediately changing them. 6. Speaking too loud and too often. 7. "Getting ready" to do something. 8. Allowing pointless criticisms, questions and discussions. 9. Asking pointless wandering questions and going off on "tangents" in recitations. 10. Explaining what pupils already know. 11. Explaining what pupils should study out for themselves. 12. Repeating questions. 13. "Picking" at pupils. 14. Repeating answers after pupils. 15. Giving muddy explanations to conceal ignorance. 16. Using the voice where the eyes would be more. 17. Asking questions that can be answered by yes or no. 18. Failing to systematize knowledge.

—The great cause which hinders public education in this country is the fact the people, the citizens, the voters, have no genuine love for education and no real appreciation of what learning is. If their interest and their appreciation amounted to anything they would see to it that the school trustees and school commissioners were themselves persons of education and cultivation. And any school that is conducted by teachers who are uneducated and untrained in the art of teaching is likely to do as much harm as good. By laws we protect litigants from falling into the hands of pettifoggers who have not

been admitted and licensed to practice at the bar after a regular course of instruction: So, too, we protect sick people from the ignorance of physicians not regularly graduated from a school of medicine. But our teachers, though after a perfunctory examination they acquire a certificate to teach, in six cases out of ten are young women with no heart in their work, but an intention to follow the trade until they are invited to marry; in two other cases they are young men who wish to support themselves while studying what they consider a real profession; in another the teacher is an incompetent: while in the remaining case of the stated ten the teacher is likely to be a serious person seriously pursuing a life work because he or she is interested in the work and conscious of its high nobility. Here we have four classes of teachers where there should only be one.—
JOHN GILMOUR SPEED in the *Forum*.

—How may a teacher do his duty to each pupil, and at the same time avoid the charge of partiality? To illustrate: Two boys get into a fight, each apparently equally to blame, the one a delicately-reared, sensitive boy, who has never been accustomed to even reproof, because trained amid favouring home environments; the other, the son of a brutal father, who has so frequently scolded and beaten the boy that he has become inured to any form of punishment. Now, if the same penalty be meted out to them, the one boy will be far more severely punished than the other: yet if the teacher treats them differently, how is he to avoid the charge of partiality to the first boy?

Some more Drawing Exercises.

1. By means of the protractor, draw several lines running in the same direction, and each making an angle of 50° with a vertical line. Where will the oblique lines meet?

2. By means of a ruler and a triangle, draw two parallel lines. Cut both by a line making an angle of 65° with the first. Mark in each of the seven angles its contents in degrees.

3. Draw a square by means of the protractor.

A rectangle.

By means of the triangle, draw a square on a 3-inch oblique line.

A rectangle 3 inches by 2 inches, the base to be an oblique line.

4. Draw a line 3 inches long. On it construct a triangle, each of the angles at the base to contain 60° . How many degrees are there in the third angle? How long is each of the two sides drawn?

5. Construct a triangle so that each angle at the base may contain 70° . How do its sides compare in length? How many degrees does the third angle contain?

6. Draw an isosceles triangle having its base vertical.

One having its base oblique.

One having its apex below its base.

7. Construct a triangle, so that the angles at the base may measure respectively 50° and 60° . How many degrees does the third angle

contain? Opposite which angle is the longest side? Opposite which angle is the shortest side?

8. Draw a right-angled triangle. Draw, if possible, a triangle containing two right angles.

Draw an obtuse-angled triangle. Draw, if possible, a triangle containing two obtuse angles.

Draw triangles of various forms. Find by means of the protractor the sum of the angles in each triangle.

9. Draw a parallelogram, the sides of which measure 4 inches and 3 inches. Draw, if possible, another parallelogram of these dimensions differing in shape from the first.

Draw a rectangle 4 by 3 inches.

A rhomboid 4 inches by 3 inches, altitude $2\frac{1}{2}$ inches.

A rhomboid containing an angle of 70° . How many degrees does each of the other three angles contain?

10. Draw a rhombus whose side measures 3 inches.

A 3-inch rhombus whose altitude is 2 inches.

A 3-inch rhombus containing an angle of 150° .

11. Draw, if possible, three trapezoids of different shapes, the parallel sides of each measuring 3 inches and 4 inches, respectively, and the altitude in each case being $2\frac{1}{2}$ inches.

12. Draw a trapezium having one diagonal of 4 inches, so that perpendiculars let fall from the opposite angles to this diagonal will measure respectively 2 and 3 inches.

Draw, if possible, a trapezium of a different shape having like the former a diagonal of 4 inches and perpendiculars measuring respectively 2 inches and 3 inches.

13. Draw a circle with a radius of 2 inches. Draw diameters making angles of 90° degrees. Draw chords, forming an inscribed square.

14. In a circle with a radius of $2\frac{1}{2}$ inches, draw two radii meeting at an angle of 60° . Find how many degrees the intercepted arc contains.

With dividers, mark off on the circumferences as many successive arcs as possible equal to the first. Draw chords subtending these arcs. Find the length of each chord.

Correspondence, etc.

EDITOR, EDUCATIONAL NEWS:

My dear Sir,—I chanced to be present at the recitation of one of our high school classes in algebra, one day last week. The teacher was unfolding the expansion of such expressions as $(a + b)^2$ with respect to the coefficients. I then put this binomial on the board $(2x + y)^2$; in the discussion which followed I wanted to show the law

that would apply to the finding of the coefficient of any term in that power.

After I had gone back to my room, I began investigating various powers of a variety of binomials, and I discovered what I wanted,— a general law regulating coefficients in any power of any binomial. I then tried to state what I had found out in a clear, concise rule, and the following is the result.

Of course I think it is the best rule I ever saw on the subject. Robinson's Elementary Algebra has a rule something like it, but not so clear, I think.

I am satisfied that any binomial may be raised to any power by it.

Examples.—

$$(x + y)^5, (2x - y)^3, (2ax + 2y)^4, (3a^2 x^3 + 2b^3 y^4)^5$$

In an ordinarily bright scholar, after enough study to give him command of the phraseology, can expand different powers correctly, I think the rule is all right. What do others think?

Rule for finding any power of any binomial.

I. THE LETTERS AND THEIR EXPONENTS.

a. Choose a leading letter in each term of the binomial. Regard the other factors of each as term coefficients.

b. Make the leading letter of the *first term* of the binomial, with an exponent equal to its exponent in the binomial multiplied by the exponent of the power, the first term of the power. Diminish this, and the exponent of the letter in each of the following terms in order, by the exponent of the letter in the binomial, until the exponent becomes zero.

c. Make the leading letter of the *second term* of the binomial, with an exponent equal to its exponent in the binomial, a factor of the second term of the power. Increase this, and the exponent of the same letter in each of the following terms in order, by once the exponent of the letter in the binomial, until the exponent is equal to the exponent of the letter in the binomial multiplied by the exponent of the power.

II. THE COEFFICIENTS.

a. Raise the coefficient of the first term of the binomial to the required power.

b. Formula for finding the coefficients of the terms of the power, following the first, in their order.

Let C = the coefficient of any term of the power.

E' = the exponent of the leading letter in the first term of the binomial.

E = the exponent of the same letter in the term of the power considered.

c = the coefficient of the second term of the binomial.

c' = the coefficient of the first term of the binomial.

N = the number of the term of the power considered.

Then $\frac{C \times E \times c}{C' \times E' \times N}$ = the coefficient of the succeeding term of the power.

Respectfully,

THOS. FARQUHAR.

[The above has been taken from an old copy of that enterprising journal, the EDUCATIONAL NEWS, one of the teachers' weeklies on the continent, and may be of interest to the academy teacher.]

A subscriber writes to us, says an exchange: "I must give up my school and therefore my school paper. I have taught for twenty years, the trustees got a young teacher for a lower salary and I must seek employment of some other kind, because I could hardly make ends meet on my salary. Can you help me to a situation." This process is going on all over the country. Our school machinery is so well adapted to supply young teachers, who are ready, naturally, to take a situation as beginners at lower salaries than their predecessors, that our experienced teachers, especially men, are forced out. Educationally, the country loses very much by this short-sighted policy. What is the remedy? Educate the people to value more highly knowledge acquired by experience. A man, to become a power in knowledge, must work in it and through it till he grasps the full meaning of what he thought he knew. There is no other way of giving a man possession of what he has acquired in the schools. By neglect of this truth our country is suffering loss, by the process above referred to. The gain of four dollars a month anyone can see, but very few look at the *contra* side of the account, which cannot be balanced by many four dollars a month. Our people do not consider.

[Have our teachers faith in themselves? Are they true to one another? Only by being so will the average salary come to be increased.—Ed. E. R.]

Books Received and Reviewed.

[All Exchanges and Books for Review should be sent direct to Dr. J. M. Harper, Box 98, Quebec, P.Q.]

In the *Atlantic Monthly* for November is an interesting paper by Walter Mitchell on "The Future of Naval Warfare." George Birkbeck Hill concludes with a fifth "Talk over Autographs," his most readable series. "The Parting of the Ways," a study of the question of physical culture for women, and another of Lafcadio Hearn's essays on Japan and Japanese affairs, contribute to the worth of the number. Fiction is represented by an instalment of Gilbert Parker's Canadian story, "The Seats of the Mighty," and one or two short stories.

The November number of *Education* contains two articles by Dr. Wm. T. Harris, U.S. Commissioner of Education, on "The Necessity of Five Co-ordinate Groups" and "Herbart's Unmoral Education."

(Kasson & Palmer, Boston.) SCOTT'S WOODSTOCK, edited by Bliss Perry, A.M., and published by Messrs. Longmans, Green & Co., is the latest addition to Longmans' Series of English Classics. Last month we had occasion to speak very favourably of this series, and what was said then applies to this most serviceable edition of Sir Walter Scott's novel.

The *Canadian Magazine* for December is an excellent holiday number and contains much that is interesting, not only to Canadians but to all. Among the articles in the Christmas issue may be mentioned one on the Castle St. Louis, Quebec, by J. M. Lemoine, and another on the U. E. Loyalists, by C. G. D. Roberts. "Adèle Berthier," a Canadian Story, by F. H. Brigden, is well told. There are also several good poems and critical papers of much merit. The *Canadian Magazine* is published in Toronto. *Current History*, for the third quarter of 1895, is equal in every way to its predecessors. Among the subjects treated of at length are, "Louis Pasteur," "The Situation in the Orient," "The Armenian Problem," "General European Situation," and all happenings of historical interest the world over. *Current History* is published by Messrs. Garretson, Cox & Co., Buffalo, N.Y.

The Montreal *Witness* is celebrating its Jubilee this month, and we extend our hearty congratulations. Fifty years of mighty newspaper influence, wielded in every good cause, and the success which has crowned them are worthy of congratulation, and it will not be lacking in the case of the *Witness*, whose friends are legion. May it go on and prosper.

The *Atlantic Monthly* for December contains two historical papers of great merit. "The Starving Time in Old Virginia," by John Fiske, and "The Defeat of the Spanish Armada," by W. F. Tilton. In these articles we find two events in history presented in a most readable fashion. Gilbert Parker's powerful Quebec story, "The Seats of the Mighty," is continued, and there are also several short stories, one of them by L. Dougall. "A New England Woodpile," by Rowland E. Robinson; "Being a Typewriter," a plea for the more general and more artistic use of the typewriter, by Lucy C. Bull; "New Figures in Literature and Art—Hamlin Garland"; poetry, book reviews, etc., make up the number. The announcement for 1896 promises many interesting features.

THE PRINCIPLES OF INTERNATIONAL LAW, by T. J. Lawrence, M.A., LL.D., and published by Messrs. D. C. Heath & Co., Boston. Every student of political science is interested in the principles which regulate the intercourse between nations and the rules which govern their conduct towards one another. The subject of international law is one worthy of study, and Dr. Lawrence, with his extensive experience as a teacher, both at Cambridge and Chicago, has presented it in his latest book most completely and yet without excessive detail. The four parts into which he has divided his work

treat of the nature and history of International Law, the Law of Peace, the Law of War, and the Law of Neutrality. Numerous examples from history are cited as authority and illustration.

MACAULAY'S ESSAY ON MILTON, edited by James G. Crosswell, A.B., and published by Messrs. Longmans, Green & Co., New York and London; and WEBSTER'S BUNKER HILL ORATION, and other addresses relating to the Revolution, edited by Fred Newton Scott, Ph.D., and published by Messrs. Longmans, Green & Co., New York and London.

These are the latest additions to Longmans' admirable series of the English Classics. Looked upon as text-books or as books for general reading, too much cannot be said in praise of this series. The introductions are good, the notes are good, the texts are good, and the same is to be said of the typography and binding, which is artistic and at the same time durable. In making additions to the school library, this series should not be lost sight of.

DEFOR'S ROBINSON CRUSOE and STOWE'S UNCLE TOM'S CABIN are the December issues of Messrs. Houghton, Mifflin & Co.'s Riverside Literature Series. It is good to hear that these children's friends have been published and are being issued at a reasonable figure by such a reliable house. These works have been selected in pursuance of Messrs. Houghton, Mifflin & Co.'s plan of publishing at the lowest price books suitable in every way for the school library.

KARMA, by Dr. Paul Carus, is the name of a tale published in booklet form by the Open Court Publishing Company, Chicago. It is illustrated by Japanese artists and printed on Japanese crepe paper.

LOVERS THREE THOUSAND YEARS AGO, by Rev. T. A. Goodwin, D.D., and published by the Open Court Publishing Company. The theories set forth in Dr. Goodwin's book are founded on the Song of Solomon.

Official Department.

NOTICES FROM THE "OFFICIAL GAZETTE."

His Honor the Lieutenant-Governor has been pleased to appoint, on the 22nd of November (1895), Mr. Michael Woodlock, school commissioner for the municipality of Sainte Catherine, county of Portneuf, to replace Mr. Francois Beaumont, whose term of office has expired.

To appoint, on the 4th December, Mr. Thomas Stewart, school commissioner for the municipality of Howick, county of Chateaugay, in place of Mr. Mathew Orr, senior.

To appoint, on the 5th December, Mr. Louis Deschamps, school commissioner for the municipality of Saint Paul l'Ermite, county of l'Assomption, in place of Dr. Zoel Comtois, absent.