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The Canada School Journal.

VOL. IV. TORONTO, JULY, 1879. No. 26.

ARCHIBALD MACALLUM, M.A., LL.B.,

LATE INSPECTOR OF PUBLIC SCHOOLS, HAMILTON.

There are few names that have been so long known to the teachers of Ontario as that which stands at the head of this sketch. For more than thirty years Mr. Macallum occupied a prominent position among the teachers of this Province, and now that his labor is done he will be missed as an earnest promoter of all that was calculated to advance the best interests of education.

Mr. Macallum was born at Point Fortune, on the Ottawa River, in 1824, and died after a lingering illness of several months on the 30th ult. For the first twelve years of his life he had not the advantages of a thorough Canadian education, as he spoke only the Gaelic language during that period. His advancement was very marked, however, when he had the opportunity of attending school. He first entered the lumber business, which was the great trade of his native district, but continued to make manly efforts to secure an education. He afterwards entered into business in Montreal. He remained there only a short time, as his ardent desire to be a teacher soon led him to devote himself to what eventually became his life work. He entered the Toronto Normal School, and obtained in its ninth session the first First-Class Certificate ever granted by the Department. He was soon appointed to the position of Principal of the Provincial Model School in connection with the institution in which he had received his training. Nothing could more fully show the high esteem in which he was held by the instructors of the school, and by Dr. Ryerson, who at that time took a direct personal interest in the welfare of the Normal and Model Schools. He remained in Toronto until the year 1858, when he removed to Hamilton to take charge of the Public Schools of that city, as the successor of Dr. Sangster. He was Principal of the Central School until the passing of the School Law of 1871, when the name of his office was changed to Public School Inspector. For twenty-one years he remained at the head of the school system of Hamilton, and its citizens had great reason to be satisfied with the marked progress of the schools under his charge. The large number of flags flying "at half-mast," and the universal regret manifested on the occasion of his funeral, showed how his work has been, and is, appreciated by those among whom he has so long lived and laboured. Hamilton mourns for him as for one of its most honored fathers. To the present generation of its citizens he has been in many respects more than a father.

Mr. Macallum did not cease to be a student when he became a teacher. In 1864 he took the degree of B.A. in Toronto University. He obtained his M.A. in 1866, and LL.B. in 1877.

In 1878 he wrote an English Literature Primer for use in the Fourth Classes of the schools of his native Province. Its merit is clearly shown by the manner in which it has been received by his fellow teachers; it having within one year run through five editions.

It was not only as a noble worker in his chosen profession that he was known and valued in the city which had so long been his home. He was a willing worker in every good cause. The following selection from the beautiful and appropriate remarks of his pastor, Rev. Mr. Williams, at his funeral, truly define the relationships which he held to his fellow-citizens:—"'He being dead yet speaketh.' Good men never die. Their bodies may die; but they live on—live in the words they have spoken, in the acts they have performed, and in the precious memories they have engraven on the hearts of those they have left behind them. Our departed brother still speaks to us—speaks of the power which a man has of endowment naturally. Largely self educated, self-developed, our brother brought to bear, with intellectual life, strong moral and mental life. He has left his impress on society generally, as one who has taken God's gifts as they were given to him, and made them grand and glorious and mighty in self-development. He speaks to us powerfully by the influence of his meek and quiet spirit. Very quietly did Mr. Macallum pass on life's pathway. No harshness fell from his lips. As the sun builds the flowers, and works its mission quietly, so did our departed friend move in and out of his home, in the church and in the world—working out quietly, gently and beautifully, all the resources of a life grand in its symmetry and perfect in its material beauty. To young men there is the lesson from his life to be gained, that the most extensive and varied scientific knowledge may be combined with piety. We miss him in the church. You, dear friends, will miss him here. Quietly he passed up the church aisles; quietly he helped others to feel at home in the church. But these quiet steps are now passing along the golden streets. . . . . How his family will miss him! He was a quiet, gentle, loving father and a kind husband. He was ever ready to give place to others, and yield

precedence to others, even although they might not be so deserving as he. 'In honor preferring one another," seemed to be his motto. You will miss him in the educational institutions of the city, over which he presided with scholarly ability for twenty-one years, tending the young in their tender steps, and encouraging them in their intellectual and spiritual progress. And we shall miss him not only in the educational institutions, but in the friendly societies, of which he was so consistent and so faithful a member. Many of the members of these societies are here. They know how he walked among them. Look at flag after flag as they fly at half-mast. Do they not show that citizens generally deplore the loss of our brother? We must die. When we die, may our friends have to say of us—His life was like that of him who is now gone. May we follow him as far as he followed Christ. Beautiful and grand as were his scholastic abilities and secular accomplishments, yet brighter, more beautiful and stronger was the character that enabled us to call him a Christian man. When you think of the mourning house, the mourning church, the mourning circles of friends, and the mourning city, remember it as a Christian life which has been led, a Christian path which has been trod, and a Christian memory which has been left behind in all its fragrance. It lived in our churches, schools, houses and mystic institutions; the Christianity that some fear will degrade men will lift them up to all that is lovely and of good report."

The progress made by the schools while under his supervision may be noted by comparing the attendance of 1856 with that of 1876. The registered number in 1856 was 3,235, and in 1876 it had risen to 5,280. The average attendance had in the same time increased from 1,580 to 3,474.

Gleanings.

SIX REASONS FOR ABOLISHING TARDINESS.

There is a very grave and serious evil connected with the attendance at the public schools, which greatly cripples their usefulness. It is the carelessness prevailing among parents and children concerning promptness at school; and we beg for a thoughtful consideration of the reasons given below for a reform.

No parent who cares for the best welfare of his children can fail to be earnestly desirous that they obtain the best culture, moral and intellectual, which is possible to them. Hence he has a right to *demand* that his own children and those of his neighbors shall be forming a spirit and temper, and acquiring habits which shall help them to become good and useful members of society.

This, then, is the first argument we have to urge. A habit of carelessness is fostered by tardiness, which will cling to them through life, and bring to themselves and their friends great unhappiness. Reflect how many hours are wasted daily, how many valuable opportunities lost, by the pernicious habit of carelessness concerning appointments.

Second. A spirit of lawlessness is thus engendered, which in after life brings forth bitter fruit. Continual transgression of a known law, which is understood to be just and right, cannot fail to produce contempt for *all* law.

Third. A spirit of selfishness is cultivated; for if, by making a little greater exertion, so much benefit might result to a school, it is certainly cultivating a selfish love of ease to refuse to make that exertion.

Fourth. A spirit of cruelty is fostered; for a pupil must harden his heart when he declines to discontinue a practice which so annoys his teacher.

Fifth. A pupil loses that pride in his school which leads him to strive to make it distinguished for its high merit. And every teacher knows there is no more inspiring motive than this to incite scholars to high and noble endeavor.

Sixth. And this is a serious point—the child loses a portion of his own self-respect. We long to see our boys manly and our girls womanly, and to that end we should leave no means untried to cultivate in them that honest pride of character which scorns to do that which has once been shown to be wrong or foolish.

Parents, let us think of these things. A high trust is confided to our care, and let us fear to mar the work we are trying to accomplish—the building up of a fine and noble character—by our thoughtlessness or our selfishness.

Evansville. A. R. SPRAGUE.

THE TEACHER SHOULD CONSTANTLY IMPROVE.—In no occupation besides teaching is there such pressing need of new thoughts, ideas, and illustrations; in none is there such a tendency to fall into "ruts"—to do the same thing over and over in the same way, and to say the same thing over and over day after day. A wise teacher reasons as a woman does when she buys a sewing-machine, or as a farmer does when he buys a mowing-machine. He avails himself of the thoughts and discoveries of others on education. Hence the importance of *educational publications*; they are the cheapest, readiest, and surest means a teacher can employ to keep himself and his school up *in front*. To be a first-class teacher you must know what the most skilful of your profession would do if in your place.—*New York School Journal.*

THE BEGINNINGS OF ART EDUCATION IN MASSACHUSETTS.—It is not to be supposed that this movement was begun solely out of a love for the beautiful, or to ripen local art as an end sufficient in itself. The cultivated New-Englander has not laid aside his traditional shrewdness in parting with certain ancestral crudities, and sound business reasons were found for State legislation in favor of artistic training. The mortifying experience of England in her World's Fair of 1852, which resulted in the formation of the South Kensington Museum and schools, told at last upon the observation of Yankee manufacturers and merchants, who saw the immense strides that the mother country had taken since cultivating design in her industries. This was once well exemplified by a lecturer at the old Central School of Design in London, who showed his audience three marmalade pots of exactly the same size. The first, a plain jar, cost fourteen cents; the next, which had a mimic thistle embossed on it, cost eighteen, though the jar was still plain white; the third, which had a spray of the orange painted on it in colors, sold for twenty-four cents. Yet, mark carefully, *neither of the decorated jars cost the maker two cents more* than the plain one. So much value does ornament add. The commercial importance of design might easily be proved here on a larger scale, but unfortunately statistics are not popular. Let it be enough to say that in 1870, after less than eighteen years of South Kensington, the value added to cotton goods manufactured in England was twice and a quarter the original cost of the raw material. This enormous rate in the addition of value by workmanship was largely owing to the improvement in patterns caused by the new art training. Ample precedent, therefore, could be cited in support of the Massachusetts Legislature when it passed an Act, in April, 1870, declaring that any town might, and all towns and cities of over 10,000 inhabitants *must*, annually make provision for giving free instruction in industrial or mechanical drawing to persons over fifteen years of age. This instruction, either in day or evening schools, was wisely placed under the care of the regular local school committees, so that the study became at once a part of the regular education of all embryo citizens who should attend the public schools at all.—G. P. LATHROP *in Harper's Magazine for May.*

PRICES OF MAGAZINE WORK.

A writer in a New York magazine thirty-five years ago says: "The history of the monthlies for the last few years forms a chapter by itself of American progress. It is but a very short time since the dollar a page of the *North American Review* was considered sufficient pay for articles by Edward Everett. The old *New York Mirror* paid $500 a year for 'Pencillings by the Way,' (N. P. Willis,) the republication of which has paid the author $5,000. I think the burst on authorland of Graham's and Godey's liberal prices was like sunrise without a dawn. They began at once by paying their principal contributors at the rate of $12 a page—nearly thrice the amount paid by English magazines to the best writers, and paying it, too, on the receipt of the MSS., and not, as in London, on the publication of the article." These prices have not been maintained. Six dollars a page would now be an unusually high price. The leading magazines, however, with the exception of the *Atlantic Monthly*, pay on the acceptance of the MSS., but in some cases it is scarcely safe for a contributor to accept these terms, as the amount of print it will make may be under-estimated. The leading English magazines pay from $4.00 to $7.50 a page. *Blackwood* and *London Society* are exceedingly good pay. The *Quarterly* and *Edinburgh* pay ordinary contributors a guinea a page, but sometimes raise these rates fifty per cent.

SOME TIMELY HINTS.

Education implies consistent and natural growth; and "cramming" used in any allowable sense is opposed to all this. Induce in the minds of pupils, if possible, a love for knowledge, and then administer to the demands of that love with an intelligent and careful hand. "Cramming" induces dyspepsia, the proper administration of food promotes healthy warmth.—*New York News-Gleaner.*

Cramming cares nothing for the teacher or scholar, but only for the school or the system. Education makes everything of the teacher and scholar, and leaves the school, if it can be spoken of as a separate object, and the system very much to themselves, sure they will be right if the teacher and scholar are. Education, real education, aims straight at the will. It is not so much what young people are learning, or how much they want to learn, which proves their training The best points of training are motives.—*Barnes' Educational Monthly.*

At the recent meeting of the New Haven Teachers' Association, one of its members very sensibly said that he did not believe in a teacher who merely followed a text-book. He wanted to see illustrations by the teachers, and also wanted them to exercise as much freedom as possible from the books, while clinging to the subject-matter. Another fault was that teachers were not prepared for the lesson when they went to their classes, and hardly knew as much of the text as do the scholars. A great fault is that teachers are in the habit of hearing rather than teaching lessons. Another member said that a great fault in the present system of teaching was an overcrowding and an attempt to teach too much. He believed in making the student, rather than the teacher, do the work, and thought such a plan could not but result in good to the scholar.

THE INDIANS OF CANADA.

From the report of the Minister of the Interior for the past year, and appendices thereto, it appears that the Indians of Canada, on the 30th of June, 1878, numbered 99,690 souls, divided among the several Provinces and districts as follows:—

Ontario, ...	15,731
Quebec, ...	10,947
Nova Scotia, ...	2,122
New Brunswick, ...	1,459
Prince Edward Island, ...	306
Manitoba and North-west Territories,	27,203
Arthabaska District, ...	2,398
British Columbia, ...	35,153
Rupert's Land, ...	4,370
	99,690

The most interesting portion of the report is that which deals with the number of the various tribes. All the Indians of Nova Scotia and Prince Edward Island are Micmacs. In addition to these there are 913 Micmacs in New Brunswick, and 690 in Quebec, so that the Micmac race numbers in all 3,714 souls. The Malacites of New Brunswick number 546, but they are the same people as the Amalicites and Abenakis of the Province of Quebec, who number 522, so that the Malacites of the Dominion foot up 1,068 souls. The Iroquois of the Province of Quebec number 3,057, and are well advanced in civilization. The Montaquacs of the same Province number 1,255, and the Naskapees, of the lower St. Lawrence, 2,360. The Hurons, of Lorette, a feeble tribe, the remnants of the once great Huron nation, are reduced now to 290 persons, and seem doomed to extinction. The only other considerable race in Quebec is the Algonquins, numbering 5,163. They are allied both to the Micmacs and Malicites of the Maritime Provinces. In the Province of Ontario the Iroquois number 4,608. They are represented by the Oneidas of the Thames, Mohawks of the Bay of Quinte, and Six Nations on the Grand River. The Chippeways are the most numerous tribe in Ontario, numbering 9,570 souls, although this enumeration includes a few Ottawas and Pottawattamies. The Algonquins of Ontario number 614, and the Messessaquaws 728. None of the other tribes are sufficiently numerous to be worthy of mention. In Manitoba and the North-West Territories the Chippewas are the most numerous tribe. The Crees and Salteaux are also numerous, the Blackfeet number 4,928 and the Sioux, all of whom are immigrants from the United States, 1,200, and very unwelcome immigrants some of them have been.

The Efficient Teacher.—The teacher must know *what* to teach. This requires him to know a good deal more than he actually expects to teach. "It is a true saying, and one worthy of all acceptation, that a man to teach a little well must know a good deal!" How different from the idea the majority of persons hold, that the teacher who imparts only the alphabet and a knowledge of primary reading and spelling, needs to know little else than these things.

The teacher must be *eager* to teach. Without it, all else must be stupidity and death. The fire of enthusiasm must burn in a teacher. He must be eager to teach his pupils, eager to impart the knowledge he has in keeping. Do you know of such teachers? *We do.* We could name scores of teachers, who, when the time of year comes for them to enter the school-room, are eager to get back to the work. Not eager simply for the dollar and cents; not eager for any easy position, where they can shirk their work and neglect their duty; but eager to get back to the work because *they love it.*

The teacher must know *how* to teach, how to catch the wandering eye, how to hold wandering brains, how to crowd out wicked, frivolous, and unprofitable occupations of the mind and heart by means of an incoming and glorious troop of holy, noble, and useful thoughts, affections and purposes. He must know how to make the knowledge which he holds and imparts more attractive than idleness, whispering, games, or mischief of any sort. This three-fold power—knowledge, zeal and skill—will give any teacher success. This nation needs two million such teachers to-day. God grant that she may soon have them!—*Normal Teacher.*

A WORD FOR OUR SPOKEN ENGLISH.

English Grammar is taught in our schools, and, ostensibly, that the pupils may learn to use good English, or, as the old grammars have it, "to speak and write the English language correctly."

Whether the means thus used will, or can, compass the end proposed, we do not intend to consider here, although the question is one of no slight importance. We do propose, however, to put in a plea in behalf of the first, and, in some respects, major object set forth in the old formula—learning to *speak* the English language correctly.

Good English is, of course, good English, whether spoken or written. But, certainly, spoken English comes naturally first in the order of art, and, on some accounts, is no less first in the order of importance. However this may be taken by our readers, we shall venture to affirm that a fine-speaking English scholar is a rarer and more perfect specimen of culture than a fine writer. To all the other excellences—excellences which are common to both—he must add one that belongs to the spoken tongue alone, one that depends on a finished culture of both the ear and voice—a pure and perfect *pronunciation.*

Now there are special difficulties hedging about the work of acquiring a pure pronunciation. The finest sounds can rarely be set forth by phonetic signs or typical words, for the signs must be interpreted by words, and the words are sure to be interpreted by the local use. The living teacher is, besides, often both unconscious of his own errors in pronunciation from want of a fine ear, and incapable of detecting a true sound when it is represented to him. Hence, numerous and gross errors not only pervade the popular speech, but are present in the daily utterances of the school room, ever corrupting the vocal body of our spoken English.

Now, we are moved to ask, whether this matter of pronunciation should not receive a more complete and positive attention in the school room? Is it enough to give heed to it only as it happens to be associated with oral spelling and reading? Ought it not to take its place in a *specific daily* exercise? Ought not that large body of words, currently mispronounced, amounting to some three thousand or more, to be taken up *seriatim*, and made a careful study, by both teachers and pupils? The substitution of written for oral spelling tends to prevent practised pronunciation on the part of the pupil; and reading can only bring the pronunciation of these words into the field of practice, and then only to their partial obscuration by other matters. Besides, the mispronunciation of words becomes an unconscious habit, and is hence a more inveterate evil than even false spelling. It can only be rooted out by a most definite and decisive practice. Why not have pronunciation distinctly and regularly taught?—*Exchange.*

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TORONTO, JULY, 1879.

HIGHER EDUCATION OF WOMEN.

The Hon. Edward Blake delivered an excellent address a short time ago as Chancellor of the University of Toronto, and in the course of his speech he touched, amongst other topics, on the higher education of women. He spoke with warm approval of what had been done for their higher education by the Provincial University, and expressed an aspiration for still greater achievements in this direction. His views on this point will be heartily endorsed by all who desire to see a higher degree of culture diffused through this community.

It is a trite saying that in order to produce a well-educated people you must educate the mothers. By their constant association with their children during infancy and early youth they exercise a far more powerful and enduring influence over the intellectual development of their children than fathers, as a rule, do. Any well-educated man—any teacher, for example—can tell in a moment whether the child he is conversing with has an educated or an uneducated mother, but he may be at a loss to predicate anything about the father's intellectual acquirements. If this be true—and teachers generally know that it is—it is easy to understand the vast importance of securing a sound and liberal training for those who have so much to do with training the rising generation.

It must be confessed that, while the Senate of Toronto University is to be commended for what it has done for the higher education of women, it has, after all, done very little. It has, in fact, taken only the first step, and it shows, unfortunately, very little disposition to take the next. It has instituted local examinations, the programme for which covers the Junior and Senior Matriculation work in the University, and it has grouped the subjects in such a way that those who do not feel like taking all the matriculation work may take a portion of it and get credit for what they take. These examinations supply what has long been wanting in connection with the education of girls—a standard to aim at, and a test to be applied. Girls attending High Schools have heretofore been at a disadvantage as compared with the boys of their own age and class, and the want of some such standard has been even more keenly felt by those attending private schools and seminaries. What may be called "boarding school" education has been in the past very much misdirected; and though some of the institutions referred to have been doing very good work, the great majority of them have always contented themselves with imparting a very superficial and meretricious education. The institution of these local University examinations will effect a sure but probably gradual improvement in this respect. The better schools will make it their business to prepare candidates for these examinations, and the others will be compelled to follow their example or lose their patronage.

All this is matter for rejoicing, but something more still is wanted. The Senate should supplement what it has done by throwing open all its examinations, rewards and degrees to female, on the same terms as to male, students. In this respect the University's prototype in London has set it a noble example that cannot be too speedily followed. Nor should this suffice. The Senate cannot undertake the work of teaching students, but it can very materially aid those institutions which do train young ladies by granting them affiliation, and in this way developing their teaching power. It can also do something in the way of influencing the Legislature in the matter of providing better educational facilities for girls. If female students are not to be allowed to attend lectures in University College—the only one belonging to the Province—then there should be a similar institution provided for them in which they may be able to obtain what they cannot at present obtain anywhere—first-class literary and scientific training. Any movement by the Provincial University in these directions would be hailed with delight by the whole teaching fraternity, and if the hon. and learned Chancellor desires to earn a more enduring monument than he can win by either professional or political success, he has only to throw his great personal weight in the scale in favor of the softer and, in this respect, more destitute sex.

TEACHERS' WORK IN THE HOLIDAYS.

Paradoxical as it may seem, yet teachers should, and "live teachers" do, "work" in the holidays. There is much to do and a short time to do it in. As a matter of fact, however, many teachers have no settled plan or system for "work" in the holidays. This is a serious mistake. Some give themselves entirely up to mere physical and mental relaxation, so called, yet in so desultory a fashion that it is questionable whether or not, in most cases, any positive good results from such relaxation.

Our school law, in wisely and humanely providing that a teacher shall be paid his salary during the period of the holidays, practically regards him as still a "school officer." As such he should not fail to recognize the implied obligation to turn the vacation to good account. The question is, how can this be done?

We may briefly answer. Divide the time of the vacation judiciously, so as to combine real relaxation with practical work. As a rule, remove from the neighbourhood of the school, so as to enjoy a change of scene and association, as well as the companionship of new friends. Select with lighter reading some valuable standard book (which you may have desired

to read), and which shall furnish some substantial mental pabulum for future professional use. Attend, if possible, one of the large and important educational gatherings in Canada or the United States which usually take place in vacation time. If this be not practicable, take up some special professional study which shall bring your mind into contact with the thoughts and opinions of other minds as a substitute for the living speech and oral discussion. So important are these educational *reunions* of teachers for practical work in the holidays regarded, that in the United States special schools and institutes have, during the last two or three years, been organized each summer. Their object is the study and discussion of "teachers' topics" and kindred subjects.

The following is a brief list of the more important educational meetings for teachers, in Canada and the United States, which have been announced :—

July 7.—Summer School of Industrial Drawing, Columbus, Ohio.

July 16.—Scientific and Æsthetic Conference, Thousand Island Park, Wellesley Island, River St. Lawrence.

July 17.—Normal School of Languages, Chautauqua Lake, N. Y.

July 29.—American National Educational Association, Philadelphia.

July 30.—Educational Society of Eastern Ontario, Ottawa.

August 6.—Social Science Convention, Thousand Island Park, Wellesley Island, River St. Lawrence.

August 11.—Normal Educational Conference, Thousand Island Park, Wellesley Island, River St. Lawrence.

August 12.—Ontario Teachers' Association, Toronto.

August 17.—Sunday School Parliament, Thousand Island Park, Wellesley Island, River St. Lawrence.

A vacation spent as we have indicated, and in attendance at one or more of the meetings mentioned above, would prove (especially to the younger teachers) both pleasant and profitable. It would afford real relaxation of a substantial kind, as well as tend to "tone up" the mental powers of the teacher, so as to better fit him for his arduous labours and patient toil than a vacation spent in desultory "enjoyment" so called, and mere physical dissipation.

—Mr. James Mills, M.A., principal of the Collegiate Institute of Brantford, has accepted the position of President of the school in connection with the Model Farm, Guelph. The Government could not have made a better selection. Farmers pay a large share of the school funds of the Province, and it is only right that those who are going to follow the pursuit of agriculture should receive the best scholastic training the country can afford. To those who know Mr. Mills it is unnecessary to state that he possesses in an eminent degree the qualities of mind and heart necessary to fit him for the important position he has been chosen to fill. It is of great consequence to the country, that the young men who in the natural order of things will become leaders in their respective communities, should receive liberal and enlightened views in regard to education and general culture, and Mr. Mills has the force of character and the enthusiasm in his work necessary to make such impressions on those who may be under his supervision.

—Mr. Richard Lewis, of Toronto, will conduct a class in Elocution for teachers during the holidays. The importance of this subject is felt in this country to a greater extent than ever before, and no teacher can afford to be indifferent to it, even from a financial point of view. The improved address which results from a good elocutionary training will alone more than compensate for any outlay necessary in securing it. Mr. Lewis is so well known by his valuable books, and his frequent visits to Teachers' Associations, that it is unnecessary to speak of his eminent fitness for the work which he has undertaken.

—We direct attention to the article of Mr. O'Hagan, of Belleville, on Separate Schools, to be found among the contributions in this number of the JOURNAL. Mr. O'Hagan is an earnest advocate of the Separate School system; and as the subject is one that is certain to be of vast importance in Ontario, even those who differ from the views of the writer will receive benefit from a perusal of the article.

—We would call the attention of those contemplating the study of medicine to the advertisement, in another column, of the Toronto School of Medicine. This institution has a large and able staff of professors, and its graduates rank very high in the profession, both at home and abroad.

—The practice of holding Summer schools for teachers, for the purpose of allowing them an opportunity of studying special subjects in which they are deficient, is a commendable one, and we are pleased to note that at least two of them are to be conducted during vacation time this year in Ontario.

—The Ontario Business College in Belleville has secured the services of Mr. Spragge, head master of the Cobourg Model School, for the purpose of conducting a teachers' class during the holidays. Mr. Spragge is a Provincial Medallist, and a teacher possessed of intelligence and enthusiasm.

Contributions and Correspondence.

THE TEACHERS' PROFESSION.

The subjoined address was delivered by Rev. Cyprian Pinkham, M.A., Chief Superintendent of Schools in Manitoba, before the Association of Selkirk County:—

Your constitution provides that the work of the Association shall be to read papers and discuss matters having a practical bearing on the daily work of the school room. You propose by personal intercourse with teachers, by an interchange of ideas on the subjects to be taught, and by practical illus-

trations of the most approved methods of presenting these subjects to your pupils, to increase your aptitude for your work.

It is impossible to over-estimate the importance of such meetings, particularly in Manitoba, at the present time. It is now pretty generally admitted that the teacher should be taught how to teach. Training institutions are a luxury which, owing to the smallness of our Provincial subsidy, we have hitherto found beyond our reach. I hope this will not long be the case; but if such Provinces as Ontario and New Brunswick, with their admirable Normal and other schools for teachers, deem these associations of so much importance as to demand the encouragement and co-operation of the educational authorities and certain pecuniary help from public funds, we ought to hail their organization with lively satisfaction. Obliged to take our teachers from any source from which they may present themselves, it now and then happens that persons pass into the profession with very vague ideas of their duties; and however anxious they may be to supply the defect, there is no opportunity of doing so except the partial one which experience in their own shools affords. Our meetings, conducted in accordance with the constitution, officered by persons of experience, in which every member desirous of expressing his views of his every day work and of the difficulties he meets with in its discharge, will have ample opportunity of doing so, will, I confidently expect, prove to be of very great value to all of us, and particularly to the younger and less experienced teachers of the county. It will be for us all to throw ourselves heartily into the work of the association, so that it may be instilled with life and vigor, and that we may all derive as much benefit as possible from our connection with it.

I am sure you will bear with me if at this early stage in my address I remind you of the greatness of the responsibility which rests upon you. As the teachers of our common schools you are working at the foundation, and the character of your work will determine to an almost inconceivable extent all subsequent work. Such soil as you have to work upon cannot be surpassed; such preparation for the harvest of usefulness and joy which every Christian in the land can produce, or for that desolation which the perverted use of all that is highest and noblest in a man can alone cause, few have more to do with than the teachers of our elementary schools. Failures in the early work, says the thoughtful and eloquent superintendent of the Boston public schools, are apt to be followed if, not actually repeated, in the subsequent work. The primary school trains pupils not merely for its own studies, but for those to come after. It has an almost awful grasp upon the future. Days, months, and years after its children have climbed above it, it is still reaching them, still lifting them or dragging them back according to its training; what it has taught them to seek, they continue shunning. The lessons they have learnt, the truth they have loved, the honor they have won, are controlling forces as they grow older. Or it may be the reverse. And then the weaknesses and errors of after life are explained by the unlearned lesson, the unloved truth, the unreached honor of earlier years. Absolutely untrained your pupils never are, because home influence, has been exercising its subtle power long before they come to you; but most of them are so young and plastic that home influence whether good or bad, can be greatly modified in the school. The teacher is his pupil's model whom he must copy, whose influence he cannot help recognizing. You have it in your power to impress your character upon the children under you—aye, it will be impressed whether you desire it or not. Such being the case, the standard which those who undertake to instruct the young should set up for themselves ought to be a high one indeed.

I have always thought it a defect in our system that hitherto we have seemed unable to arrive at any satisfactory conclusion about applying any religious or moral test to our teachers to ascertain their fitness in these respects for the discharge of their important duties, and that a certificate of moral character should be taken to cover everything except the ground covered by the ordinary examination. It is surely a matter for grave consideration that the Bible, which contains the ground of a man's faith and hope and love, and exhibits so many striking illustrations of the power and effect of good and evil on the human heart, should by tacit understanding be avoided in our examination. We require that our schools should be opened and closed with the reading of Scripture and prayer, but we have no means of ascertaining the amount of religious knowledge, if any, which our teachers themselves possess. As long as this is the case, we must not be surprised if, instead of carefully selecting a few verses and so reading them as to make the opening and closing of the school the brightest moments of the day, a teacher is sometimes found reading a portion of Scripture in such a way as to convey the idea that he thinks very little and knows less about it; and that, as a consequence, reverence for the Bible, which ought to be formed in a child almost without its knowledge, should give place to indifference and it may be to repugnance.

"Oh say not, dream not heavenly notes,
In childish ears are vain,
That the young mind at random floats
And cannot reach the strain.

"Dim or unheard the words may fall,
And yet the heaven-taught mind
May learn the sacred air and all
The harmony unwind"

Next, I would have you remember that our schools are places of introduction to the greater world of thought and act in which we live. Thirty or forty years hence the destinies of the Province will be in the hands of those who are children now. Many of us will be in our graves, and those who are now at school will be thundering in the Legislature, teaching from the pulpit or through the press or in the school, and filling all the various callings which exist in a thriving community such as this. The custom of cramming with mere book learning, the going through a given part of any given subject without any attempt to assimilate the knowledge therein contained, is the utmost folly. You are not pouring liquor into a jar through a funnel, or packing sardines in a box, but training those who will shortly be men and women for the active duties of life. The child is not better nor wiser for having become acquainted with a quantity of surface learning or bare accomplishments. The mind must be expanded, the attention arrested, and, above everything else, a capacity for receiving and assimilating knowledge must be engendered. With the number of subjects which modern ideas require to be found on the programme of studies for our public schools there is much danger of mere surface knowledge. It is a well-known fact that children who have for years attended school are often sadly nonplussed when they are brought face to face with duties which involve a practical test of what are supposed to be the most familiar branches of a common school education. The training which fails to fit the boy or girl for the stern realities of life is to a large extent a failure. Life is too short, time is too precious, for any part of it to be spent uselessly. We must not have to sow when we ought to be reaping the harvest, nor should we have to learn how to do this or that, when not to do it almost unconsciously and from habit is to fail. It is a question if we are not requiring too much from both teachers and scholars, and if we may not yet have to go back and give more attention to first principles, leaving the details of knowledge to take care of themselves. Some books, says Bacon, in his essay on studies, are to be tasted, others to be swallowed, and some few

to be chewed and digested; that is, some books are to be read only in part, others to be read but not cursorily, and some few to be read wholly and with diligence and attention. I would have you thoroughly loyal to the programme as well as to every other regulation which those who are placed over you may determine upon. How can a teacher expect or enforce obedience on the part of his pupils if he is not himself thoroughly obedient to those who for the time are officially his superiors? But you must exercise your judgment as to the relative importance of different subjects, and the time to be given to them, as well as the most effective way of presenting them. Some few subjects must be studied thoroughly, and others dexterously introduced so that interest in them may be excited. It is better to study two or three things well than a dozen things badly. Education, remember, is a leading forth from innate barbarism and ignorance; it is the training of the tender mind; in its beginning it is like getting the infant of a few months to hold a pencil, or something equally small and light, in its tiny hand, knowing as you do so that the same hand may yet swing the sledge-hammer, or steer the ship, or paint an exquisite picture. You want to create an interest—to call into action powers that are dormant, whose exercise is absolutely necessary for their growth and expansion.

Try to make your teaching as interesting as possible. The author of "The Gentle Life" speaks of cramming the youthful mind "with the fairy tales of science and the long results of time," made as dry and innutritious as a bone out of a French stew. Some teachers —I am far from reckoning any of you in this category—reduce every subject, however interesting it can be made, to a dull commonplace. Let there be as little of the drilling master as possible, not only about your management of your school but about your method of imparting knowledge. No two of your pupils are exactly alike. Study closely the idiosyncracies of each, so that you may not fall into the fatal error of treating all of them as so many facsimiles of one individual. You are not to repress individuality, but to encourage it within lawful bounds.

"To arrange his thoughts clearly, to speak his own language intelligibly, to discern between right and wrong, to govern his passions, to receive such pleasures of ear or sight as life may render accessible," is not a bad summary of primary instruction. A child who has learnt this has made a good start, and will probably go on learning to the end of life; and if you add to this "a politeness towards and correct estimation of the opposite sex, personal cleanliness, proper pride—a lofty feeling which will keep the boy from committing any dishonesty and meanness—and not only a love but a thorough knowledge of truth, of its weight, use and power, and of the weakness, danger and shiftiness of falsehood," you will have done all that you possibly can do with many of your pupils, and, though you may not at first think so, you will have done a great deal towards the formation of characters that will not be unworthy of the highest destinies to which they may be called.

A thoughtful teacher who takes an enthusiastic interest in his work will always feel, as his pupils leave him one by one, that he has not done half as much as he would have wished for them; but if he has done his best to make them masters of the branches they have been studying under him, and withal has given them a clear idea of their ignorance and defects of character, and has stirred up a desire to remove that ignorance and those defects, he need not worry himself; the world is a school and experience one of the best of teachers, and there is the lifetime for learning.

No earnest thoughtful worker can repress the sigh which he half unconsciously heaves as he thinks of the incompleteness of his labors, whatever they may be; but there is ground for much consolation in the thought underlying the following lines, which are, I think, a not inappropriate ending to these few remarks, which through your kindness I have been permitted to make:

Nothing resting in its own completeness
Can have worth or beauty, but alone
Because it leads and tends to further sweetness,
Fuller, higher, deeper than its own.

Spring's real glory dwells not in the meaning,
Gracious though it be, of her blue hours;
But is hidden in her tender leaning
To the Summer's richer wealth of flowers.

* * * * *

Childhood's smiles unconscious graces borrow
From strife that in a far off future lies;
And angel glances (veiled now by Life's sorrow)
Draw our hearts to some beloved eyes.

* * * * *

Learn the mystery of progression duly;
Do not call each glorious change decay;
But know we only hold our treasures truly
When it seems as if they passed away.

Nor dare to blame God's gifts for incompleteness—
In that want their beauty lies; they roll
Towards some infinite depth of love and sweetness
Bearing onward man's reluctant soul.

THE SEPARATE SCHOOL.

BY T. O'HAGAN, BELLEVILLE.

It is a pleasing fact to note how an interest in the Separate School is being gradually awakened in Ontario. Two years ago it slumbered. Since the inauguration, however, of a Separate School Convention it has arisen before public gaze, and now justly claims at least a passing notice. And why not? It is a portion and part of the great Public School system of this Province, of which we may all, without any exposure of vanity, feel proud. It is not, as an American journal of education in a fit of rashness was pleased to term it some time ago, a disfigurement of our Public School system, but rather an index of the justness of the Protestant majority of Ontario in recognizing the right of conceding to Catholics their own schools, as the Protestant Separate School points to the liberality of the Catholic majority in Austria, parts of Prussia, and our own sister Province of Quebec. It is time, therefore, that we set about studying as to how we shall render the Separate School more efficient rather than waste time in debate over the advisability of its existence in our midst. True, using the words of the Hon. Minister of Education, the Separate School is permissive, but we should add the word "necessity," and term it a permissive necessity. Granted, then, that the Separate School is a necessity in this country, the question arises, what are the great drawbacks to its progress? To my mind these two constitute very prominent ones—the want of well-qualified teachers, with the lack of a thorough and uniform system of inspection. In a word, we require a backbone to our system, and the backbone is, without doubt, a rigid inspection. There is no denying the fact that our Separate Schools are not inspected. We are divided, isolated and left to ourselves. Who, I ask, are to look after the interests of our Separate Schools? Can we cheerfully look up to advancement in the Separate School until we have men in Separate School education whose object, aim and hope is the promotion of its interests, and whose pursuit is entirely confined within its growth and welfare—men who intend to grow with its growth and strengthen with its strength, whose spirit throbs in its very structure? We may have individual cases where the Separate School in its present state and condition, owing to some great mind who moulds its

destiny, attains to somewhat of an eminence in education; but this success at best can be only temporary, and will depart with the living energy which first called it into existence. So long as the question is being continually asked, "Why do our Separate Schools not show better results?" without putting us in possession of the means to develop them, and thereby show better results, so long will we remain in the dust. Individual exertions locally, though good in themselves, will never systematize our schools or bring them into proper line. The work must be done carefully and slowly, and by a harmony of action on the part of the Catholic teachers throughout the Province. I would not assume the task of counselling the Catholic teachers of Ontario in the matter of Separate Schools, but I do venture to predict that unless Catholic thought unites, blends and coalesces to promote the interests of the Separate School, its efficiency will stand upon the same basis ten years hence as it does to-day. It cannot hope to advance without work, and we are literally beating the air if we work without unity of purpose and unity of action. The truth is, the Separate School is not doing the work which it might do if invested with proper legislation and care. This proper legislation I look upon as only a matter of time. It is said a germ of eternal truth never dies—neither will justice be suffered to perish while its spirit finds a refuge in the breasts of liberal mankind. I see before me a day when enlightened Ontario, proud of the educational wreath which binds her brow, points with just feelings of pride to the Separate School, and the part which it played in adorning, morally as well as intellectually, the minds of a great people. I see before me a day when we shall know each other in the matter of education as educators, not religionists; when every vestige of bigotry shall have been swept away, and Catholics and Protestants, possessing equal facilities and advantages, will vie with each other in adding to the beauty and grace of an already almost perfect school system. But before this halo of success lights up our path there is work ahead in the Separate School. We must pass over the same rugged road by which the Public School has reached its present state of efficiency. The same labour must be exerted on its behalf. The same indictments must be filed against it. We must arraign its wants before the bar of a committee of real and earnest educationists. We must seek for better teachers, a better support from our Catholic people, and a thorough and uniform system of supervision for every Separate School in the Province. It is with reluctance that I say here that the inspection of the Separate School by our High School Inspectors amounts to nothing. I do not, however, lay this at their feet as a dereliction of duty, for they are not expected, I believe, to inspect our Separate Schools in the true sense of the word, but rather *report* them—hence the work done. In every organization there must be a head, and upon every government must rest certain responsibilities. In the government of Separate Schools, however, there appears to be neither responsibility nor a head—not even a representative head. We know the weight attached to the importance of a thorough inspection of our Public Schools. Is there not a guarantee that the school is conducted according to law when it is subjected semi-annually to the vigilant eye of a good and painstaking inspector? And more, is there not a guarantee that the teacher is qualified, the school accommodation all that is desirable, the school itself fully equipped with school apparatus, graded properly and characterized with firm and judicious discipline? But without proper inspection, where are we? Like so many islands floating about in a sea of disorder, endeavouring to fasten ourselves to some visionary object. Yes, I verily believe the want of proper inspection to be at least one of the greatest drawbacks to the progress of the Separate School. We want men in Separate School education in whose brains are burning and upon whose hearts are written the words "Catholic Education"—men who will make no compromise with duty. Such men we want as supervisors of our Separate Schools. Such men will do more in one year to render our Separate Schools efficient than a legion of tame advocates armed with the pen. Not an amendment passed recently in favour of the Separate School but if properly utilized will bear fruit a hundred-fold. The Catholic Model School in an especial manner will yet prove more than a dead letter in Separate School legislation. There can be no line of demarcation between the Catholic Model School and the County Model School, as the candidates of each must undergo the same non-professional examination, and I doubt not the same professional examination too. Therefore there can be no excluding Catholic teachers trained in Catholic Model Schools from teaching in Public Schools—save through an intolerance which prevails but little. It is proper organization and legislation we want to further the interests of our Separate Schools, and this latter, if we seek, I feel sure we shall obtain. There are more than twenty towns in Ontario alone where the resources of Catholics will compare favorably with those of the Protestant element in proportion to their numbers, and yet our Separate Schools in the same towns are not on a parallel with the Public Schools. Why is this so? Again, by recent Separate School legislation we are entitled to a Catholic on the Board of Examiners in certain places. Very good! Were it not that the Separate School up to this has slumbered, and the Catholic teacher lived in obscurity, we would not require to place this special clause among the statutes of recent school legislation. Verily it is time that we rose from our knees, shook the dust from our garments, and resolved to be no longer, even in educational matters, "the hewers of wood and the drawers of water."

UNGRADED COUNTRY SCHOOLS.

BY JOHN SWETT.

Condensed Directions.

1. Make as few classes as possible.

2. Age and evident *capacity* should be considered in making the classification.

3. Do not attempt to hear daily recitations in all the branches, but alternate the leading studies of the older pupils.

4. Keep classes, when they are not reciting, at work on slates, blackboards, or other definite exercises.

5. Economize time by drill exercises for the whole school, except the youngest pupils, such as simple operations in mental and written arithmetic, spelling-lessons, composition-exercises, etc.

6. Match your lower-grade classes against the higher, limiting both to the elements of the studies.

7. Take a half-day, weekly, for declamations, readings, dialogues, compositions, etc.

8. Visit your pupils, and make the parents your assistant-teachers.

9. Teach your pupils the practical things that, in your opinion, they need to know.

10. Do not discourage the older pupils by "turning them back to the beginning of the book."

11. Require the older pupils to correct the written exercises of the younger ones. Criticism is good mental discipline.

12. Let your oldest scholars assist you once in a while by taking charge of a small class. Teaching is good discipline.

13. Begin the collection of a school cabinet.

14. If you are a woman, give your girls an occasional talk on "domestic economy." Buy some sensible book on the subject,

and lend it to them. Huxley says: "I put instruction in the elements of household work and of domestic economy next in order to physical training." In order to do this, it is not at all necessary to introduce a cook-stove into the schoolroom.

15. If you are a man, talk with your boys about their home-work, and instil into their minds the necessity and nobility of labor.

16. Once a week take an hour for a lesson on morals or manners. Read a good story or anecdote to illustrate your topic. You can fire a whole school with enthusiasm for good by reading well-selected stories. Stories are sermons that children can understand.

17. Make your scholars feel that truthfulness, honesty and honor are virtues that must be their ruling motives in life.

18. Make your school the district centre of civility, politeness, and good manners.

19. Persuade the parents to visit your school, even if you have to do so by means of an exhibition in which "their children" take a part.

20. School trustees are your legal superiors in office. Argue with them, persuade them, but do not contradict them.

21. Bear in mind that though you may have more "book-learning" than most of the men and women in a country district, there are sure to be many parents who are your superiors in sound sense, in judgment, and in the knowledge of the solid facts of human life.

22. Above all, keep your temper and never get discouraged. Remember that you cannot create in children capacities denied to them by the laws of hereditary descent. Do not expect too much of your scholars.

23. Whatever else is learned or not learned, a child leaving the public school at from 13 to 15 years of age should be able—

(1) To read well and to spell well.

(2) To write a neat, rapid, and legible hand.

(3) To work accurately any question in arithmetic involving the four rules, and common decimal fractions, that may arise in the common walks of life.

(4) To speak correct English, and to write a letter of business or friendship neatly and correctly.

(5) To use his faculties in observing the facts of the visible world around him, and to judge according to evidence.

EDUCATIONAL EXAMINATIONS.

To the Editor of the Canada School Journal.

SIR,—All the world is divided into two great classes, those who have passed examinations and those who have not. A great many of the latter class are very respectable people in spite of their disadvantages. As a class, however, they are growing beautifully less by degrees, and the time seems near at hand when nearly everybody will be able to talk about "passing my examinations." As regards examinations themselves, one obvious distinction is that between written and oral. Formerly oral tests were relied on, as some names like *wrangler*, etc., still remind us. In these latter days written tests are all but universal. There is a noticeable difference in the style of answering by pupils in our schools directly traceable to this difference of the test for which they are specially trained. The oral test is the more superficial, but it is far more showy. In the simple matter of spelling, for example, schools were formerly trained to spell almost wholly by word of mouth; at present they are scarcely ever asked to spell words orally, but almost entirely by writing. At the various public examinations the effect of changing the mode of testing our educational products is specially noticeable. Now-a-days we aim less at the memory—perhaps too little—and principally at the understanding. The consequence is our results are not so well calculated to make a show before a public audience, but more likely to secure the benefits of sound training.

The prevailing fashion of conducting the public examination in good Canadian schools twenty years ago was to exhibit largely the results of verbal memory, and very little work demanding consecutive thought and intellectual force. The exercises brought forward for the inspection of fond parents and uncritical trustees were generally the simplest examples of pure memory, such as spelling matches—often a leading feature—repetition of endless strings of useless dates, long lists of geographical names and definitions, pages on pages of history *verbatim et literatim*, questions in arithmetic solved mechanically by rule, sentences parsed mechanically, without any real insight into the construction of the language. The parents of those days often went home highly gratified at the clever answers of Edith and Augustulus, and also at the talent they displayed in another prominent feature of the programme. We refer to the recitations, dialogues, amateur theatricals, etc., which were wont to fill up the happy hours of the evening. These entertainments were always immensely popular—in fact, unrivalled by anything but the circus and the negro minstrels. They frequently had a strong dash of the minstrel element in them. Proud mammas went home delighted with the way dear little Gustavus Adolphus recited the Song of the Dying Swan. Johnny astonished the natives with his representation of Deacon Homespun, and Tom won laurels as a magnificent judge with his grandmother's spectacles and a horse-tail wig.

The glory has departed—*sic gloria transit*. Now-a-days a public examination is comparatively tame and dry. When the question is *Why?* instead of *How?* and the *Reason* is in greater demand than the blind *Rule*, pupils do not come forward with the same confidence their parents used to show in repeating glibly by rote what they never understood, and what they forgot completely before the end of five years after leaving school. In the best schools of to-day no such stuffing of the memory is ever aimed at, though, of course, in all education worthy of the name memory must treasure up the results of our investigations. The consequence is that where the best teaching is done, where the greatest amount of real training of the thinking power is accomplished, the "show business" is generally a failure. Ready-made answers cost little and can be tripped fluently off the tongue; but the pupil who is compelled to think before answering will often show hesitancy and perhaps clothe his answer in very inadequate expressions, giving the impression to the casual observer that the child is not as well trained as children were "when I went to school and used to spell down the whole school."

It was only recently that a good deal was said to the effect that these written tests foster "cram." We believe this to be quite false, and are confident that there is now far less "cram" in schools and colleges than there was a generation ago, when high premiums were placed on the results of pure memory. Let any reasonable person take the lowest of our public written tests, viz., the Entrance Examination to High Schools, and examine the questions proposed, one by one, and point out those that could with certainty have been crammed. Not one in twenty can fairly be so claimed. It is the same with the Intermediate, the First Class, the Matriculation and higher examinations in all our decent colleges.

The great result aimed at, and, we believe, largely achieved, is to compel teachers and pupils to digest and assimilate their knowledge, to marshal and organize their knowledge for themselves. The progress made is slower and less ostentatious, but it is far more real, permanent and valuable than the progress made under the old system of training children to go through a hollow show before an incompetent tribunal of trustees and parents. As a matter of course, we may expect the usual percentage of purblind croakers and constitutional grumblers, who long for the flesh pots of Egypt, and stoutly affirm that the good old times were better than these.

F. D. X., Seaforth, Ont.

DRAWING IN THE TORONTO PUBLIC SCHOOLS.

(To the Editor of The Globe.)

SIR,—A short time ago I was invited, with Messrs. Baigent and Matthews, members of the Ontario Society of Artists, by Mr. Hughes, Inspector of Public Schools in Toronto, to visit some of the schools and see the progress made by the pupils in drawing since the classes for industrial drawing were introduced, less than a year ago, and I have been requested to state through your columns what we saw. We were accompanied by Mr. Bain, a member of the School Board, and we visited the Ryerson, Welles-

ley, and Dufferin Schools, seeing the different classes of boys and girls in each.

The same course is pursued in all the schools, and as all the classes, young and old, began drawing at the same time, what is said of one class will at present apply to all. In another year, when those who have commenced to draw in the junior class continue it in the senior ones, we shall be better able to judge of their progress.

Not very much time is given to drawing. One regular teacher of drawing is employed, who gives a lesson of fifteen minutes once a week to each class, putting the subject for the week upon the black-board. This is continued by the ordinary teacher, under whose direction fifteen minutes every day is appropriated for drawing. The system adopted is in the main that used in the Public Schools of Massachusetts; the copies and text books are the ones used there, and are all admirable in their way.*

The object principally aimed at, while training the hands and the eyes of the children, is to teach them to think, and to make them understand that they have, each of them, original inventive faculties, and capacity for original design. The pupils draw first upon slates, and afterwards with pencil upon paper. They begin with lines and geometrical forms, going on with curves, conventional forms of leaves and flowers, and simple ornamental patterns. From the first they are made to repeat the exercises from memory, and encouraged to make original design, or to vary at pleasure the form given. For instance, the lesson may be a clover leaf, trefoil. They are asked to arrange this in a continuous pattern, or to fill in a square or circle with it, or make some arrangement of it. The delight that the children take in these exercises, and their ingenuity and taste in this form of design, is wonderful, and a remarkable thing that we observed was that the very young children did as well as the elder ones, all having begun at the same time. This coincides with the published opinion of a distinguished authority upon art education, who gives as his experience that children have a natural faculty for design, which, if not cultivated, becomes dulled and obliterated with advancing years.

The kind of drawing thus happily introduced into the Public Schools of Toronto, while being the best basis for any kind of art has a distinct industrial application. It is better training for after life in any kind of handicraft than anything else they learn at school, except reading, writing and arithmetic, and it is as useful to them as any of these, without interfering with them. It will not be long before the example thus set in the schools of Toronto will be followed all over Canada, and the sooner the better.

One point which has been solved is the question whether ordinary school teachers, who have not learned to draw, can teach drawing. I should have supposed not, but they are doing it with the assistance I have described, and doing it, at least the elementary part, effectually. That they could do it much better if properly taught themselves is undeniable; but this must be a work of time, even if a Normal Art School were organized at once, as it should be. Meanwhile it is a satisfaction to know that much can be done, and is being done, with the materials that we have.

The Ontario School of Art has offered a scholarship as a prize to the best pupil in drawing of each of the three Public Schools of Toronto, and the Council is desirous to do the same with other schools throughout Ontario that may take up elementary and industrial drawing in the same efficient way.

I may mention one point in which the Schools of Toronto now compare favorably with those of my young days. Then schoolboys were considered and treated as beings in a state of barbarism, with only one faculty to be cultivated—the memory, and only one instrument of cultivation—the cane. Now boys are treated as civilized beings, or as beings capable of being civilized. The school houses are surrounded with trees, grass and flowers; flowers and birds are in the school rooms, and under their care. In short their better instincts are appealed to, and their higher facultities cultivated. Perhaps eventually boys may even cease to be a nuisance.

I have the honor to be, your obedient servant,

L. R. O'BRIEN,

Member of the Council of the Ontario School of Art, and Vice-President of the Ontario Society of Artists.

Toronto, June 24th, 1879.

* Walter Smith's Drawing Books.

Mathematical Department.

Communications intended for this part of the JOURNAL should be on separate sheets, written on only one side, and properly paged to prevent mistakes. They must be received on or before the 20th of the month to secure notice in the succeeding issue.

GEOMETRICAL LOCI.

When a point is required which is to satisfy *one* geometrical condition, the problem is in general indeterminate, *i.e.*, there is an infinite number of points which satisfy the condition. Thus, if a point be required subject to the single condition that it shall be at a given distance from a given point, it is evident that there is an infinite number of points which satisfy the required condition—in fact, that any point on the circumference of a circle whose centre is the given point and radius the given distance, is the required point. Or if a point be required subject to the single condition that it shall be at a given distance from a given straight line, it is clear that any point in either of two straight lines drawn parallel to the given straight line, on opposite sides of it and at the given distance from it, will be such a point as is required. *The assemblage of such points as satisfy the given condition is called the locus of these points.* Or we might give the following

DEFINITION.—When a line can be found such that every point in it satisfies a certain proposed condition, the line is called the *locus* of the point satisfying the proposed condition.

Thus in the example first given, a circle is the locus of a point at a constant distance from another given point; and in the second case, of two parallel straight lines, either is the locus of points at a const... distance from the other.

Illustrations of loci will readily present themselves:—

The locus of a point at a given distance from a given circle is evidently another concentric circle with radius greater or less by the given distance.

The locus of a point equidistant from two given points is a straight line drawn bisecting at right angles the straight line joining the given points.

The locus of a point equidistant from two given intersecting straight lines, is the straight line which bisects the angle between the given lines. For if AB, AC be the two given straight lines, and AD be drawn bisecting the angle BAC, and from D, *any* point in AD, perpendiculars DE, DF be drawn to AB, AC, then these perpendiculars are equal, because in the triangles DAE, DAF we have two angles in the one equal to two angles in the other, and the side AD common. Thus from whatever point in AD we draw perpendiculars these perpendiculars are equal, and AD is such a line that every point in it is equidistant from AB, AC, *i.e.*, AD is the locus required.

In solving questions concerning loci the nature of the locus may generally be discovered by *assuming the condition satisfied*, and reasoning from the figure so obtained. Thus to find the locus of the middle points of all straight lines which have one extremity in a given point, and the other in a given straight line, we might let A be the given point and BC be the given straight line, and let D, E be the middle points of AB, AC, *i.e.*, let D, E be points in the required locus. Then evidently (Prop. 2, Bk. VI.) DE is parallel to BC, and therefore will bisect any other line drawn from A to BC. Hence DE is the required locus.

The following are additional examples:

1. Find the locus of points at which two adjacent sides of a square subtend equal angles. (Evidently the diagonal of the square.)

2. Find the locus of a point such that the differences of its distances from two given straight lines may be of constant length.

(If AB, AC be the given straight lines, draw DE parallel to AC, cutting AB in D, and at a distance from AC equal to the given constant length. The line bisecting the angle BDE is the required locus.)

3. Find the locus of the middle points of parallel chords in a circle. (A diameter.)

4. Find the locus of the middle points of equal chords in a circle. (A concentric circle.)

5. The locus of the vertices of all triangles on the same base and having the same vertical angle is a circle. (Prop. 21, Bk. III.)

6. If from two fixed points in the circumference of a circle, straight lines be drawn intercepting a given arc and meeting without the circle, the locus of their intersections is a circle. (It may readily be shown that the angle at the intersection of the lines is constant, and the line joining the fixed points is constant; hence by previous problem the locus is a circle.)

7. P is any point in a semicircle whose diameter is AB; AP is produced to Q, so that PQ is equal to PB. Find the locus of Q. (Evidently a segment of a circle containing an angle of 45°, described on AB.)

8. If from any external point any number of straight lines be drawn cutting a circle, find the locus of the middle points of the chords thus formed. (If A be the external point, and B the centre of the circle, the locus is a portion of the circle described on AB as diameter.)

9. Given the base and the sum of the squares on the sides of any triangle, find the locus of its vertex. (Use Prob. 145, page 351, Todhunter's Euclid, or Prob. 1, page 91, Hamblin Smith's Euclid. Construct a square equal to the difference between half the sum of the squares and the square on half the given base. With the side of this square as radius and the middle point of the given base as centre, describe a circle. This circle will be the locus required;—seen from the props. we have referred to.)

10. The base of a triangle and the radius of its circumscribing circle being given, find the locus of its vertex. (On the given base construct a triangle with sides each equal to the given radius. The vertex of this triangle is the centre of the circumscribing circle, any point on the circumference of which may be the vertex of the required triangle.)

11. If a circle roll within another of twice its size, any point in its circumference will trace out a diameter of the first. (Let A be the point in the large circle from which P the point in the small circle starts, and C the centre of the large circle. And at any time during the rolling assume that P is in AC, and let B be the present point of contact. Then the angle subtended at the centre of the small circle by BP is double the angle subtended at the centre of the large circle by AB; and hence, one circle being double the other, the arc BP is equal to the arc BA, and this is the condition for rolling.)

12. Find the locus of a point, such that if straight lines be drawn from it to the four corners of a given square, the sum of the squares shall be invariable. (The required locus is a circle whose centre is the intersection of the diagonals of the square, the particular circle being determined in a given case by the given sum of the squares on the lines drawn to the corners of the square.)

INTERSECTION OF LOCI.

When a point has to be found which satisfies *two* conditions, the problem is generally determinate if it is possible: and the method of loci is very frequently employed in discovering the point. For if the locus which satisfies each condition separately be constructed, the intersection or intersections of these loci will mark the point or points at which both conditions are satisfied.

Applications of the principle of intersection of loci in determining problems are frequently met with; *e.g.*, Prop. 1, Bk. I. Here it is required to determine a point subject to the two conditions that its distances from two given points A and B shall be equal to a given distance. Accordingly Euclid constructs the locus of points at the given distance from A; then the locus of points at the given distance from B; the intersections of these loci give points satisfying the required conditions. Prop. 22, Bk. I., is another example.

The following are additional illustrations:—

1. Find a point in a given straight line at equal distances from two given points.

2. Find a point in a given straight line at a given distance from a given straight line.

3. Find a point in a given straight line at equal distances from two given straight lines.

4. Describe an isosceles triangle on a given base, its sides being of a given length.

5. Find a point at a given distance from a given point, and at the same distance from a given straight line.

6. Given the base, the sum of the sides, and one of the angles at the base of a triangle, construct the triangle.

7. Given the base, the difference of the sides, and one of the angles at the base of a triangle, construct the triangle.

8. Find a point at given distances from the circumference of two given circles.

J. P. has sent in a correct solution of Prob. 4, March number.

S., of Woodstock, has forwarded one solution of Prob. 15, May number.

Mr. G. Shaw, of Kemble, has correctly solved Prob. 17, May number.

We are asked for the solution of Question 4, page 218, Hamblin Smith's Arithmetic.

The total cost is \$1700000; the amount of stock \$1500000; leaving an assessment of \$200000 to be made on the shareholders. This is $13\frac{1}{3}$ per cent. on \$1500000, which, with the final call of 30 per cent., makes $43\frac{1}{3}$ per cent.

Mr. J. J. Magee, M. A., Uxbridge, sends the following questions with solutions, the solutions having been asked for at the late Ontario Co. Teachers' Association:

1. If a person spends $\frac{3}{4}$ of his money, and \$20 more than $\frac{1}{7}$ of the remainder less \$20, and has \$28 left, how much had he at the beginning?

If he spends $\frac{3}{4} + 20$, he has $\frac{1}{4} - 20$ left.

..... $\frac{2}{3}$ of this $- 20$, he has $\frac{2}{3} \div 20$ left;

$\therefore \frac{2}{3}(\frac{1}{4} - 20) + 20 = 28$,

or $\frac{2}{12} = 12\frac{2}{3}$, or unity = \$98.

Otherwise, $\frac{3}{4} + 20 = 28$, $\frac{3}{4} = 8$, unity = 96, what he had left after first expenditure. $\therefore \frac{1}{4} - 20 = 96$, $\frac{1}{4} = 98$, as before.

2. Two persons, A and B, gain \$700. A's money was 3 months in trade, and his gain was \$300 less than his stock. B's, which was \$250 more than A's, was in trade 5 months. Find A's stock.

Let $x = A$'s stock; $x + 250 = B$'s. $\frac{x - 300}{8x}$ = gain on \$1.00 for 1 month, found from A's gain. Similarly $\frac{700 - (x - 300)}{5(250 + x)}$ = same from B's gain. Equating these we have a quadratic, giving A's stock \$500.

3. Question 5, page 239, McLellan & Kirkland's Examination Papers.

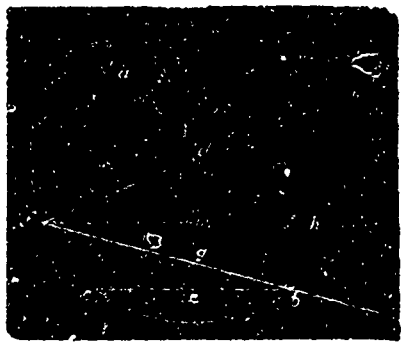
$\frac{4}{5}\frac{4}{5}$ males $- \frac{2}{5}\frac{3}{5}$ females $= \frac{1}{5}\frac{2}{5}$ (males + females). Thence males $\times$ 40 = females $\times$ 82; or males are to females as 4 is to 5.

J. P. In your first attempt to solve Prob. 4, March issue, you say, "and by joining nP we have the two triangles $BB'C$ and nPI similar." If this is true, it should have been proved.

W. G. S. Your solution of Prob. 15, May number, was a mere guess method—it had not the merit of those in which the left-hand number of the equation was factored.

We have received the following trisection of a rectilineal angle from Mr. E. Stone Wiggins, of Ottawa. Mr. Wiggins speaks of it as his "solution of the long-famed problem to trisect a rectilineal angle by plane geometry." Mr. Wiggins seems to be in error in respect to the nature of his work. His solution is mechanical, and not the "geometrical" one long sought but not found. There are many other mechanical solutions, more or less easy of application. However, Mr. Wiggins' method is quite ingenious, and worthy a place in our journal.

TO TRISECT A RECTILINEAL ANGLE.



Let abc be any rectilineal angle.

In ab take any point d, and draw de perpendicular to cb.

Take a rule fn, leaving at its extremity f an eyelet that will admit the point of the compasses so as to be in the line of the side fg; also having, in its side, a slide with a needle h, and which is likewise in a line with the side fg. Measure on the rule from f a distance $fg = db$. Fix the needle h (as you would fix the point of the compasses) at the point b. With a radius equal to db, place one leg of the compasses at d and the other at f, and sweep the instrument—of course carrying the rule with it—towards h till the point g meets the perpendicular de.

The angle fbc is one-third of the angle abc

Join fd and draw fm perpendicular to de.

Now because fm and be are both perpendicular to de they are parallel, and therefore the angle gfm = the angle gbc. Also because $fg = db$ and $db = df$, being radii of the same circle, $fg = fd$ and the angle fdm = the angle fgm. And since the angle fmg = the angle fmd, and the side fm is common to both triangles, therefore the angle dfm = the angle gfm (I., 26.), and the angle dfg is double the angle gfm, and therefore double the angle gbc. But since $db = df$, the angle dbf = the angle dfb; therefore the angle dbf is double the angle gbc, that is, the angle fbc. Hence the angle fbc is one-third of the angle abc, and bisecting the angle abf by bg (I., 9.) the angle abc is bisected by the straight lines bf and bg.

NOTE.—When the given angle is greater than a right angle the construction must be made on its supplement.

The part not geometrical in the above occurs where it says "and sweep the instrument . . . . the perpendicular de."

—Under the able management of Mr. Clarkson the new High School at Seaforth is progressing admirably—since the opening in January there has been an average attendance of over 55 pupils.

Practical Department.

SOME CAUSES OF FAILURES IN TEACHING; AND REMEDIES SUGGESTED.

BY W. S. HALL, A.M.

THE CAUSES.

There are several of them. 1st. *The teacher.* The pupil *is not or should not be* the conductor of the school; consequently, we must not look at this point for any of the causes. Back of our own instructing, we *may* go for a place to locate the cause, for, if any blame is to be attached, we are only too ready to throw it on some one else.

It is sufficient to treat diseases as we find them in our own individual practice, not in our neighboring physicians. The primary cause of *all* diseases is some broken law of nature, either consciously or unconsciously. Now, do we not ruthlessly violate the law of nature when we attempt to break open the child's mind by the sledge-hammer system—compelling him to learn by rote so many rules and definitions, of the purport of which he has but the faintest idea? But you say, "I was taught in that way and know no other." Brilliant excuse for a teacher (?) to use! Study out some other! You require your pupils to study. Most assuredly you cannot be so utterly inconsistent as to require of them a task you are unwilling to perform yourself! Besides, you have not answered the question—you have not even suggested a remedy.

2nd Cause.—One of nature's prime laws is activity, either intellectual or physical There is neither intellectual nor physical activity in asking a class a certain set of questions, or in hearing the same class recite a precise number of paragraphs from a grammar or history. This, when persistently carried on, is enough to make the brightest class dull—dead.

3rd Cause.—The want of ambition and enthusiasm on the part of the teacher. The school is what the teacher is—unambitious, enthusiastic, brilliant, scintillating, lazy or dull.

4th Cause.—Lack of any just conception of the true dignity of the teacher's office and utter unfitness for the incumbency. The dignity of this profession is second to none. The amount of fitness required for the work is of no mean or low order.

5th Cause.—Lack of a high standard of morality among teachers. Too many consider morality as belonging to the ministerial profession, and as totally distinct from pedagogics.

REMEDIES.

To cure a disease, we must necessarily cure the cause. Now, too frequently the teacher is the cause. This must be removed—radically—not palliated or covered over. He must be educated, in the broadest sense of that term; educated to institute and carry on original thought; educated to independently analyze human nature and the human mind. Before we hang pictures, we must have pegs upon which to suspend them. Before we decorate the mind room with pictures, we must supply and place the pegs. Ideas are the pegs, things the decorations. Teach the pupil the idea of number, *before* the definition. Definition is the natural outcome of this. It is, then, nothing more nor less than the word-picture of the idea.

2nd Remedy, *Activity.*—Too many teachers are born tired—too tired to be true teachers. I once knew a teacher (?) who had a class in geography numbering seventeen pupils. To each one were propounded these five questions:

"What state on the north of Illinois? What state on the east? What state on the south? What state on the west? What is the capital city?"

There were therefore eighty-five questions proposed to these seventeen pupils. I submit, was there in this catechising any element of teaching? This lady was a graduate of a normal school. Fortunately, she is not attempting to teach any longer. The result was a decided intellectual deadness. This disease might have been prevented by teaching the idea first, and then the thing. Had she drawn the outline of that state—Illinois—and then required the pupils to fill in the relief—the elevations, depressions, rivers, and locate the cities and towns—had she done this, what would have been the result? Without doubt, they would have been making a real progress. They would have known all about the surface of the state, why the rivers and cities are located in their places. I grant that this requires more work on the part of the teacher, but the result would have *more* than repaid the extra amount of labor—would have repaid the teacher in a consciousness of better work and a real progress on the part of the pupil.

3rd Remedy.—The teacher cannot be a listless, unambitious person and have an active, intellectual and enthusiastic school. Teachers must be thoroughly imbued with a divine zeal and a desire to make the most of his material. He must be *earnest* in his work—must impress upon the pupil the necessity of earnest and thorough labor. But this does not necessarily imply learning lessons or set talks.

Pres. Chadbourne, in a recent address, said, "Teach your children that they can do a meaner thing than *fail in recitation.*" These same failures may become important factors of an accumulative force. Right here is presented to the teacher an opportunity to materially aid the pupil. There are numerous cases on record where failures of a like nature have become sources of power. Tell them the story of Demosthenes and Lord Beaconsfield—the one swaying vast audiences by his honeyed words or bitter invectives, the other moving nations by his tremendous power.

These historical characters cannot be too often presented to the pupils. Upon them may hang many moral lessons. Moral ethics are quite as important as learning mathematical rules and formulas.

4th Remedy.—Not many of the mass of those occupying high academic positions have any just conceptions of the teacher's profession. To remedy this, the educational press must educate the teacher up to this position. The teacher must be a regular reader of educational journals. No lawyer or physician who pretends to keep up with his profession at all fails to supply himself with current literature bearing directly upon their respective vocations. Their calling is not a whit higher or capable of producing grander results than our own.

Full too often we forget that in the young minds entrusted to our care are contained grand possibilities; these possibilities we must develop into still grander and nobler realities. We forget that every pupil is a future American citizen—a possible American statesman. We forget that it is our duty, as well as our privilege, to fit him to perform the duties incumbent upon him in an intelligent manner.

Chancellor Haven, in an address on the occasion of his inauguration as Chancellor of Syracuse University, gave utterance to these words: "No civilized people ever existed without schools. . . . A slavish confinement to a prescribed curriculum and a constant repetition of established forms of expression does greater violence to the true idea of a university than a voluntary limitation to a chosen part of the great orb of universal knowledge." While we do not claim that the common or high school can do or does what the college or university does, we do claim that they *can* and *ought to do* that which no college or university can possibly accomplish. If a "slavish confinement to a prescribed course of study in a university be a greater violence to the real idea of a university than a voluntary limitation to a chosen part of the great orb of universal knowledge"—if it be true of a university course of study, we can do a greater violence to the ideal of a school than to cut aloof from too close an adherence to text-books. The object and aim of a college or university is to aid one in conducting original researches in the highest realms of thought. The real object of the lower grade of schools is to lay a solid foundation for this superstructure, to fit the pupil for independent thought and action.

Schools "grow, are not created." Civilization cannot continue, cannot even arise without them. Schools are necessary to colleges, and universities are not less so to a nation's perpetuity. No nation ever had a birth without schools of a higher or lower grade. Let us remember, that if we would have our efforts appreciated, we must make our *pupils* appreciate them, for they will be the ones who, in after life, will provide the educational facilities.

5th Remedy—For lack of a high standard of morality, "We do not," says Pres. Chadbourne, "advocate doing sermons on morality, but a continuous current." Some among our boy pupils may enter the political arena. Teach them that they can do a meaner thing than to fail in securing a nomination or an election. Our politics have become notoriously corrupt. Of this, our later Presidential election has given us abundant evidence. When a prominent member of a prominent school board can belittle himself enough to unhead "the bar'l," we may well tremble for the result. He has but little of true manhood left. When he will sacrifice the school which he is morally and legally bound to protect and advance to accomplish political chicanery, he can have no spark or element of that true manly honor which some true teacher must have endeavored to plant in his heart. But alas! the *weeds* grow faster than the *choicest* grains! Set an example of high manly honor. Let your pupils see a *living* example of pure and upright integrity. This will be the grandest object lesson you can present to a class or school. Boys or girls can best learn moral ethics from objects.

It is said that Dr. Arnold, of Rugby renown, always *believed* his boys. This treatment compelled them to think it a mean, disreputable thing to tell *him* a falsehood. Impress them with the idea that lying and cowardice are close companions. A true, heroic man "can't lie." What will it profit a man to gain high political positions? What will it profit a man to gain almost universal knowledge and lose his own high sense of honor and integrity?" Teach your boys that it is not a manly thing to *purchase* an entrance into the White House, or any other political position.

A continual and upward bent of the mind towards the higher plains of morality may be given to the members of our schools. It is to the schools that the nation must look for its future safety. Elevate the moral tone and you destroy the major part of the Jesuits' income. Elevate the moral tone and you depopulate our prisons and penitentiaries; you decrease the national expenses. It pays to be a moral as well as a Christian people. Teach your boys and girls to be gentlemen and gentlewomen in the most sterling sense of these words. "Fifteen minutes, for instance, could well be spared from a day's German instruction, if they went to make two or three boys feel keenly that cruelty, of which there is far too much in schools, was a stupid and sneaking thing. Not long ago, in a western school, a boy received such savage and merciless treatment from his master that he died in a day or two after from his injuries. What sort of education is it that does not teach children to feel themselves degraded by brutality like this? It is folly to leave all moral training to home and parents; the hours

in which a child comes under those influences are more than balanced by the hours of school and play. Instruction in good living, if it be not continuous, like daily bread and sunshine, is of small account; and instruction in good living given constantly, with simplicity, with heartfelt sincerity and kindness, is what children especially need to receive from their teachers. What shall it profit a boy, if he leaves school skilled in figures, but untaught in manly honor that would make him an upright man of business? Or a girl, if with her grammar and her rhetoric, she has not learned to speak the words of truth, of righteousness, of Christian charity?"

Niagara Falls, N. Y.

BOTANY IN THE SCHOOLS. III.

BY H. B. SPOTTON, M.A.

In our last paper an outline, necessarily brief, of the examination of a Buttercup was given, and it was suggested that the examination should be followed up by that of the Hepatica, or some other common plant of the same Order, so that it might be seen why such plants are grouped together. We propose in the present number to indicate how such an examination might be conducted, and then to pass on to a plant of another group, furnishing an illustration of marked differences in the structure of the flower. For purposes of comparison, the following figures of the various parts of a Buttercup are given:

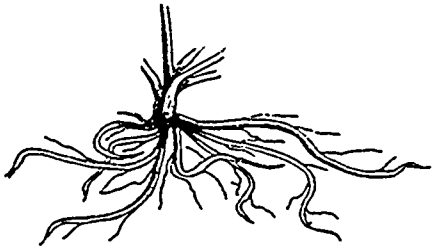


Fig. 1.

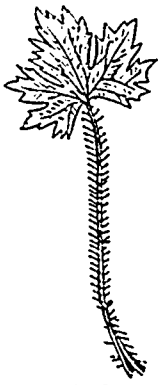


Fig. 3.

Fig. 2.

Fig. 4.

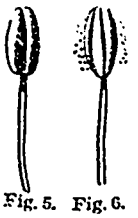


Fig. 5. Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.

Fig. 1 Fibrous root of a Buttercup. Fig. 2. Stem of same Fig. 3. One of the radical leaves. Fig. 4. Back of a flower, showing sepals and petals. Fig. 5. Stamen. Fig. 6. The same discharging pollen. Fig. 7. Head of carpels. Fig. 8. A carpel magnified and cut through to show the ovule. Fig. 9. Section of a flower.

The root of the Hepatica as shown below (Fig. 10) is not very much different from that of the Buttercup. It may in like manner be described as *fibrous*. The next point is the stem. In the Buttercup it will have been observed that the stem is that part from which the leaves spring. Examining the Hepatica in the light of this fact, and following the petioles of the leaves down to their insertion, it will be found that they and the roots appear to spring from the same place—that there is apparently *no stem*. Plants of this kind are therefore called *acaulescent*, that is *stemless*; but it must be pointed out that the absence of the stem is only apparent. In reality there is one, but owing to the suppression of the internodes, it is so short as to be almost indistinguishable. The leaves of this plant must, therefore, be all *radical*.

Fig. 10.

Fig. 11.

Fig. 12.

Fig. 13.

Fig. 10. Hepatica. Fig. 11. Flower of same with three bracts underneath. Fig. 12. Head of carpels. Fig. 13. Single carpel.

The flowers of the Hepatica are all upon long peduncles, which, like the leaves, appear to spring from the root. Naked peduncles of this kind are described as *scapes*. The flower-stalk of the Dandelion is another example. In examining the flower itself the same order may be observed as in the previous examination. Just beneath the coloured leaves there are three leaflets, which, at first sight, will almost certainly be regarded as a calyx. If these leaflets, however, be carefully turned back, a *short bit of stem* will be found between them and the coloured part of the flower. As they are, therefore, *below* the receptacle, they cannot be sepals, but are simply *bracts*, and the flower, from the absence of one of the four sets of floral organs, is *incomplete*. If we followed the analogy of the Buttercup, we should be disposed to consider the coloured part of the Hepatica as a corolla; but there is an understanding among botanists that when only one set of floral envelopes is present, that one must be the calyx, whether coloured or not. Our flower is consequently *apetalous*. Removing the colored sepals, what is left of the flower very much resembles what was left of the Buttercup after the removal of the calyx and corolla. The stamens are very numerous, and are inserted on the receptacle. The carpels are also numerous, are inserted on the receptacle, and are free from each other (*apocarpous*). And an examination of one of the carpels shows that it contains a single ovule. On the whole, then, it appears that while there are undoubtedly differences between the Buttercup and the Hepatica, yet the *structure of their flowers* is strikingly alike. The parts are all separate from each other and inserted on the receptacle, and the stamens and carpels are in each case numerous. There are also other grounds on which these plants are classified in the same Order, but the above will be sufficient for an introductory lesson.

HOW SHALL WE CULTIVATE THE CHILD'S SENSES?

The mind of the child derives its first notions of the external world from the exercise of its senses. "From the hour of birth, through all the waking moments, there pour in through the eye ever-varying impressions of light and color, from the dimness of twilight to the utmost solar refulgence, which are reproduced as a highly diversified luminous consciousness. *Impressions of sound*, of all qualities and intensities, loud and faint, shrill and dull, harsh and musical, in endless succession, enter the ear, and give rise to a varied auditory consciousness. Ever-changing contrasts of touch acquaint the minds with hard things and soft, light and heavy, rough and smooth, round and angular, brittle and flexible, and are wrought into a knowledge of things within reach. And so, also, with the senses of taste and smell. This multitude of contrasted impressions, representing the endless diversity of the surrounding world, has been organized into a connected and coherent body of knowledge.

"After two or three years, the face that was at first blank becomes bright with the light of numberless recognitions. The child knows all the common objects of the house, the garden, and the street, and it not only knows them apart, but it has extended its discrimination of likeness and difference to a great many of their characters. It has found out about differences of form, size, color, weight, transparency, plasticity, toughness, brittleness, fluidity, warmth, taste, and various other properties of the solid and liquid substances of which it has had experience. It has noted peculiarities among animals and plants, and the distinctions, traits, and habits of persons.

"Besides this, it has learned to associate names with its ideas; it has acquired a language. The number of words it uses to express things, and actions, and qualities, degrees and relations among these things and actions, shows the extent to which its discriminations have been carried; groups of ideas are integrated into trains of thought, and words into corresponding trains of sentences, to communicate them."

Nature to be our Guide.—When a child goes to school, the first duty of the teacher is to continue the method of education which has been pursued by Nature; to increase the acuteness of the senses by suitable exercises, to direct them to appropriate objects, to extend the discriminations of likeness and unlikeness in which its present knowledge consists, and to supply words as they are wanted, to designate the notions and conceptions which the mind gradually accumulates.

Now, Nature's education begins with life, and her school is the school of experience. She teaches nothing but what the child will need to know, and all her lessons are regulated by the degree of development which he has reached and the practical use to which her lessons are to be applied. She is in no hurry. She does not cram. She associates pleasures and pains with the sensations to which she directs attention. She repeats her lessons day after day with unwearying patience and with infinite variety of illustration and exercise. She leaves time for her lessons to be thoroughly assimilated and put in practice. She links on new knowledge to old. She converts every sense into an avenue for conveying new ideas, and every instinct into an instrument for stimulating the infant to exercise his senses. She never wearies her pupil. As soon as he is tired of examining one thing she directs him to another, and when he is tired of examining everything she sends him to sleep. She turns everything to account for the purpose of instructing and educating him, and teaches him invaluable lessons while he seems to be only sucking a coral, or pulling a flower to pieces, or rolling a ball, or smoothing a cat. Examine her pupil at the age of three, and you will find that he has learnt the leading elementary truths of Physics without attending the lectures of any learned professor; that he has some acquaintance with Botany, and considerable knowledge of Natural History; that he has a deep insight into human character, and that, without the assistance of grammar or dictionary, he has learnt to speak his mother-tongue with tolerable fluency and accuracy; that he has made a commencement in several mechanical crafts, such as those of mason and carpenter; that he is not wholly ignorant of the Fine Arts, and that he has elementary notions of the truths of morality and religion.

We clearly cannot do better, then, than take Nature for our guide when the child leaves the nursery to go to school. She has mapped out for us the course which we ought to pursue in his formal education. "New helps and resources may be needed, but the essential means should be the same. Mental growth is to be carried by cultivation to still higher stages, with the same processes hitherto employed. Nothing is more obvious than that the child's entrance upon school-life, instead of being the wise continuance of processes already begun, is usually an abrupt translation to a new, artificial, and totally different sphere of mental experience. Although in the previous periods it has learned more than it ever will again in the same time, and learned it according to the fundamental laws of growing intelligence, yet the current notion is that education begins with the child's entrance upon school-life. That which does begin it this time is not education, but simply the acquirement of new helps to it."

The Aim which the Teacher should set before him in Cultivating the Senses.—In cultivating the senses our aim should be, not so much to bring them to their highest possible acuteness, as to fit them for the duties of life, as efficient and ready instruments of the mind. It is a simple extravagance to aim at attaining "an eye as keen and piercing as that of the eagle; an ear as sensitive to the faintest sound as that of the hare; a nostril as far-scenting as that of the wild deer; a tongue as delicate as that of the butterfly; and a touch as acute as that of the spider." One is tempted, on hearing such language, to quote the words of Pope:

> "Why has not man a microscopic eye?
> For this plain reason—man is not a fly.
> Say what the use were finer optics given,
> To inspect a mite, not comprehend the heaven?
> Or touch, if tremblingly alive all o'er,
> To smart and agonize at every pore?
> Or quick effluvia darting through the brain,
> Die of a rose in aromatic pain?
> If nature thundered in his opening ears,
> And stunned him with the music of the spheres,
> How would he wish that Heaven had left him still
> *The whispering zephyr and the purling rill.*"

Nor need we have recourse to exercises for the exclusive purpose of cultivating the senses. The same lessons which will supply children with such knowledge as it is most desirable they should acquire will afford adequate opportunities for the exercise of the senses. Herbert Spencer says on this point: "From the Bushman, whose eye, habitually employed in identifying distant objects that are to be pursued or fled from, has acquired a telescopic range, to the accountant whose daily practice enables him to add up several columns simultaneously, we find that the highest power of a faculty results from the discharge of those duties which the conditions of life require it to discharge. And we may be sure, *a priori*, that the same law holds throughout education. The education of most value for guidance must be at the same time the most valuable for discipline."

Children must Use their Senses.—The great thing for the teacher to aim at is to get children to use their senses in the acquisition of all knowledge that is based on observation. This they

may do either by collecting facts for inductions of their own, or by verifying the observations of others. Words are invaluable helps to the mind in classifying things, in recollecting them, in reasoning from them, and in communicating knowledge relating to them, but they can never supersede the necessity for original observation. They have no meaning until the ideas are lodged in the mind which they designate, and, however familiar they may be to the ears of the children who hear them, they are, without antecedent sense-impressions, a meaningless and unknown language. Children must see, and hear, and taste, and smell, and touch for themselves, before they can benefit by the observation and testimony of others. Without accurate sense-impressions our perceptions must be erroneous; and with erroneous perceptions, our conceptions, our judgments, our reasoning, and all our other mental operations must be erroneous. "The education of the senses neglected, all after-education partakes of a drowsiness, a haziness, an insufficiency, which it is impossible to cure." The concrete being unknown, or imperfectly known, the abstract is marked by the same characteristics.

Miss Edgeworth says on this point: "Rousseau has judiciously advised that the senses of children should be cultivated with the utmost care. In proportion to the distinctness of their perceptions will be the accuracy of their memory, and probably also the precision of their judgment. A child who sees imperfectly cannot reason justly about the objects of sight because he has not sufficient data. A child who does not hear distinctly cannot judge well of sound; and if we could suppose the sense of touch to be twice as accurate in one child as in another, we might conclude that the judgment of these children must differ in a similar proportion. The defects in organization are not within the power of the preceptor; but we may observe that inattention and want of exercise are frequently the causes of what are mistaken for natural defects; and, on the contrary, increased attention and cultivation sometimes produce that quickness of eye and ear, and that consequent readiness of judgment, which we are apt to attribute to natural superiority of organization or capacity."

But the formation of habits of observation is, perhaps, of more value even than the knowledge gained in childhood by the exercise of the senses. There is no occupation in life in which powers of accurate observation are not needed, to say nothing of the infinite sources of pleasure which these powers open up to us. "If we consider it," says Spencer, "we shall find that exhaustive observation is an element of all great success. It is not to artists, naturalists, and men of science only, that it is needful; it is not only that the physician depends on it for the correctness of his diagnosis, and that to the engineer it is so important that some years are prescribed in the workshop for him; but we may see that the philosopher, also, is fundamentally one who observes the relationships of things which others had overlooked, and that the poet, too, is one who sees the fine facts in nature which all recognize when pointed out, but did not before remark. Nothing requires more to be insisted on than that vivid and complete impressions are all-essential. No sound fabric of wisdom can be woven out of rotten raw material."

PERSONALS.

The McDonald medals, for the best pupils in Toronto Public Schools, were won this year by Miss Lucy Robins and Miss Martha Fortune.

Rev. Mr. Hare succeeds Rev. Mr. Sanderson as President of Ontario Ladies' College.

Mr. James Hughes has offered a medal to be competed for annually, for the pupil of Toronto Public Schools who does the best original designing in Industrial Drawing.

Hon. Adam Crooks, Minister of Education for Ontario, has sailed for Europe.

Dr. Carlyle, Math. Master Toronto Normal School, is visiting his uncle, the famous Thomas Carlyle.

Rev. Dr. McCaul, late President of University College, Toronto, and Prof. Croft, Professor in Chemistry, have severed their connection with the College, retiring on two-thirds their salary.

Mr. Jas. Mills, M.A., principal of the Brantford Collegiate Institute, has accepted the position of Principal of the Agricultural College, Guelph.

Rev. Dr. Kemp, principal of the Ottawa Ladies College, has gone to England for a holiday, and will be absent about four weeks.

The following honors and prizes were awarded at the late Convocation of Victoria College:—Gold Medallist—C. A. Masten. Silver Medallist—R. A. Coleman. Ryerson Prize—J. H. Campbell. Webster Prize—J. B. Freeman. Hodgins Prize—J. W. Perry. Metaphysical Prize—J. R. Wortley. McClure Bursary—W. W. Madge, C. Sifton. Salisbury Prize—J. B. Freeman. Wallbridge Prize—J. H. Campbell. Mills Prize—P. McCance. Punshon Prize—R. N. Burns. Wilson Prize—J. Tremeer. Hebrew—G. W. Hewitt. Sanford Bursary—J. W. Stewart. McDonald Bursary—H. T. Crossley.

Prof. Macoun, of Albert College, Belleville, will lead an exploring party from Winnipeg along the fifty-first parallel to the Rocky Mountains.

Three young ladies presented themselves at the examination of the College of Pysicians and Surgeons for matriculation in Toronto. Misses Augusta Stowe and Elizabeth Smith passed, and the third failed.

E. M. Gegg, B.A., head teacher of Parkhill High School, has been awarded the silver medal for having the most proficient school in the county, his scholars having taken the greatest number of prizes at the Northern Fair; next to him comes Mr. Robert Sansborn, late of Ailsa Craig School; and number three Mr. Wm. Amos, of McGillivray, No. 10.

Mr. Henry Hough, M.A., of the Cobourg *World*, was elected a representative of the graduates in Art upon the Senate of the Victoria University.

Mr. Somerville, Public School Inspector for the County of Wellington, and also Inspector for the town of Whitby, has received a similar appointment from the Oshawa School Board.

Notes and News.

ONTARIO.

Peterboro' schools have now 1,102 pupils on the roll.

The attendance at the Public Schools in Hamilton for May was 4,285; average, 88·6 per cent.; fees collected, $600.95.

Albert College students who stole examination papers from the printer were surprised to find a different set given to them on five subjects.

The question of military drill for the boys of the Ottawa Collegiate Institute came up recently before the notice of the Board, and Mr. Agnew, one of the staff of teachers, a military school graduate, was appointed instructor.

Peterboro' pays $5,650 in salaries to Collegiate Institute Teachers and $7,705 to Public School teachers.

The following resolution was passed at the last meeting of the Oxford Teachers' Association. Miss C. A. Jones, seconded by Miss C. Johnstone, moved the following resolution, which was carried unanimously: "That this Institute, feeling the necessity of a provision for the higher education of women, takes this opportunity of

expressing its warm approval of the step taken by Principal Grant in throwing open the doors of Queen's University to ladies."

Mr. D. P. Clapp, Inspector of Schools in Wellington, has done good work in awakening an interest in the Teachers' Association in his district.

At the annual meeting of the Alumni Association of Victoria University, the following were elected officers for the ensuing year: President, Rev. Dr. Burns, Hamilton; Vice-Presidents, James Mills, M.A., Brantford; Rev. J. W. Sparling, Ottawa; Secretary-Treasurer, H. Hough, M.A., Cobourg; Committee of Management—The graduates residing in Cobourg. Mr. E. Stevenson, of Guelph, has been awarded second prize in elocution by the Literary Association connected with the College.

Kingston was honored by being the first Canadian city in which Her Royal Highness visited a Public School. About six hundred scholars were gathered in Johnson-street school, which was selected as the object of the visit. Here the vicerogal party were met by the chairman of the Board of Education, the trustees, inspector and secretary. The pupils were exercised in arithmetic, reading and history, at the request of His Excellency and Her Royal Highness. The Marquis expressed his pleasure at the expertness and proficiency of the children, and apparent usefulness of their course of instruction. Subsequently he made close enquiries into the working of the system of public schools. At the close of the proceedings the Princess named the school "The Louise School," in compliance with a desire expressed by the managers.

The Senate of the University of New Brunswick has appointed to the classical chair Mr. John Fletcher, a graduate of the University of Toronto, who has for the past four years been pursuing his studies at Oxford.

We notice that G. Wallace, B.A., Head Master of Weston, was examiner in Mental Philosophy at Brantford Ladies' College. The report Mr. Wallace made at the annual commencement was highly creditable to the graduating class; an address was delivered by the same gentleman on the higher education of women.

Miss Jennie Lalor, first-class certificate, who has acted as assistant in Weston High School for nearly three years, has been appointed to a governorship in Ottawa Ladies' College. Miss Lalor was presented with a handsome gold chain and locket by her pupils before the close of the term.

Twenty-five ladies are writing at the matriculation examination of the Toronto University.

The Ontario School of Art has granted six scholarships to be competed for by the Toronto Public Schools.

Alderman John Hallam has with his usual public spirit granted a gold and a silver medal to be won annually by the pupils of the Toronto Public Schools who receive the best marks for Canadian History and Geography. We hope other cities may follow the example set by Messrs. McDonald, Hallam, and Hughes in Toronto.

The Matriculation Examination of Toronto University commenced at the College on Friday, June 27th. The candidates in the Arts course, who number, including ladies, 173, have been sent from the following schools:—Hamilton, 14 and 1 in part; Upper Canada College (Toronto), 12 and 1 in part; Clinton, 8, Galt, and Brantford, each 7 and 2 in part; Toronto Collegiate Institute and Newmarket, each 6 and 1 in part; London 4 and 1 in part; Welland, Elora, Bowmanville, and Barrie, each 4; Strathroy, 3 and 2 in part; Oshawa, 3 and 1 in part; St. Mary's Ottawa, and Ingersoll, each 3; St. Thomas, 2 and 1 in part; Owen Sound, St. Michael's College (Toronto), Wilberforce Educational Institute (Chatham,) Collingwood, and Peterborough, each 3; Brockville and Uxbridge, each 1 and 1 in part; Richmond Hill, Pembroke, Rockwood, Fergus, Windsor, Goderich, Yarmouth N. S., Waterdown, Lindsay, Weston, Kincardine, Iroquois, Thorold, and the Canada Literary Institute (Woodstock), each 1; Chatham, Napanee, Beamsville, Guelph and Pickering College, each 1 in part; also six from private tuition. Besides these there are three medical students, Welland, Toronto and St. Catharines each sending one. Of the candidates 22 are ladies, and are sent up by the following schools:—Hamilton, 4; London, Welland, St. Catharines, Wilberforce Educational Institute, and Brantford, each 2; Port Hope, Owen Sound, St. Mary's, Bowmanville, St. Thomas, and the Canada Literary Institute, each 1.

The following are the results of the Terminal Examinations of the spring term of the summer session of Ontario Agricultural College. The names will follow in order of merit:—

SECOND YEAR.

Agriculture.—Second-class honors, A. Raymond, M. A. Dawes.

Agriculture (Text Books).—First-class honours, Wilkinson, Robertson, Dawes.

Horticulture.—First class honors, Robertson, Wilkinson, Joyce, Chapman, Carney.

Veterinary Materia Medica.—First-Class honours, Wilkinson, Robertson, Carney.

Economic Botany.—First-class honors, Wilkinson.

Practical and Analytical Chemistry.—First-Class honours, Wilkinson.

FIRST YEAR

Agriculture.—First-class honors, J. G. Ross, Howitt, Lomas, Maguire, Dick.

Horticulture.—First-class honors, Lomas, Howitt, Atkinson, Dickinson, Lang, Maguire.

Veterinary Materia Medica.—First-class honors, Howitt, T. Patton, McFarlane, J. G. Ross, Grant, Phin, Lomas, Hogarth, Nurse.

Structural and Physiological Botany.—First-class honors, Howitt, Dickinson, Macaulay, J. G. Ross, Lomas, T. Patton, Lang, W. Patton, Kerns, Grant.

Geology, Physical Geography, and Chemical Physics.—First-class honors, Howitt, Dickinson, J. G. Ross, T. Patton, Macaulay, Skaife, W. Patton, Lomas, Lang, Atkinson, McFarlane, Dick, Grant.

English and Mathematics (First Division).—First-class honors, T. Patton, Macaulay, Howitt, Atkinson, Belt.

English and Mathematics (Second Division).—First-class honors, Phin, Maguire, J. G. Ross, Dick, Grant.

NEW BRUNSWICK.

The closing exercises of the Mount Allison College and Academies at Sackville took place the first week in June, and were, as usual, of a very interesting character. On Monday, the 2nd, there was the exhibition of the Male Academy, Rev. R. Longley, B.A., Principal. Essays and recitations were delivered by some ten of the students, interspersed with vocal and instrumental music. It appears that over 70 names were on the roll during the year. At the business meeting of the Alumni Society, held on the same day, the following officers were elected:—*President*, Rev. D. Chapman; *Vice-Presidents*, J. B. Snowball, M.P., B. Russell, M.A., L. Allison, B.A.; *Secretary*, R. C. Weldon; *Representatives to the Board of Governors*, J. L. Black, M.P.P., and R. C. Weldon.

The Alumnæ Association of the Ladies' Academy also met, and elected their officers, viz.:—*President*, Mrs. B. F. Chandler; *Vice-Presidents*, Miss S. E. Smith, Mrs. Dr. Allison, and Miss Burrell; *Secretary*, Miss G. A. Lockhart.

On the following day, the exhibition of the Ladies' Academy took place, when an excellent literary and musical programme was presented. Dr. Kennedy, the principal of the school, presided. Six young ladies received the degree of M.L.A., and one graduated in music. In the evening the Alumni of the College and Academy held a public meeting, at which W. C. Milner, of the *Chignecto Post*, the President of the society, occupied the chair. Papers were read by Miss Annie Trueman and Mr. B. Russell, M.A., and addresses given by the chairman, the Superintendent of Education of Nova Scotia, and Rev. Joseph Hart.

Wednesday was devoted to the Encœnia of the College, when the degree of B.A. was conferred upon T. E. Colpitts and R. Colpitts of Elgin, N.B., W. A. Black, F. A. Buckley, Benj. Hills and Geo. P. Robinson of Nova Scotia, H. E. Kennedy and A. K. McAlpine of Ontario, and D. D. Moore and J. W. Wadman of P. E. Island; also the degree of B. S. on Albert Chapman of Dorchester, N.B. There were 29 students in the Arts course during the year, and 41 taking special courses, including those in Theology.

It is announced that Rev. Chas. H. Paisley, M.A., has been appointed principal of the Mount Allison Wesleyan Male Academy.

The new buildings for St. Michael's College, and the Roman Catholic Cathedral at Chatham, erected upon the site of those destroyed by fire, are approaching completion.

Owing to the ill health of Dr. Coster, Principal of the Grammar School (the Classical High School for boys) at St. John, Mr. H. S. Bridges, M.A., has been appointed temporarily to the position held by the Doctor for so many years. Mr. W. M. McLean, jr., takes Mr. Bridges' place in the second department.

A Kindergarten School was recently opened in St. John, under the direction of Miss Welshman, from Boston. Mrs. Campbell Fisk and Miss Ella Marvin have charge of the school, which is a praiseworthy private enterprise. Probably this is the first Kindergarten in the Maritime Provinces.

The York County Teachers' Institute met at Fredericton on the 22nd and 23rd of May. From the attendance and the character of the discussions it was evident that the interest in these professional conferences is increasing. The Committee of Management elected for the current year consisted of Mr. E. C. Freeze, the County Inspector, President, Miss Frances Ross, Vice-President, Mr. W. G. Grunce, B.A., Secretary-Treasurer, Mr. J. Meagher and Mr. R. S. Nicolson. The following is an outline of the proceedings. Opening address by the President on the Condition of Teachers in former times as compared with the present; paper on School Discipline, by Mr. E. T. Miller; on "Time Tables," by Mr. Nicolson; lesson on Reading, by Mr. H. C. Creed, M.A.; "Study of Plant Life in Schools," by Mr. Jas. Fowler, M.A.; lessons in colour to classes of children, by Miss Brymer and Miss Seely; on "Penmanship," by Mr. Nicolson; "The Teacher's duty with regard to the playground, and the influence a teacher may gain there," by Mr. R. G. Parkin, M.A.; paper on "The Life and Labors of Pestalozzi," by Mr. Wm. Crocket, M.A.; questions answered by the Chief Superintendent, who also assisted in some of the discussions.

The Carleton County Institute met at Woodstock on the 5th and 6th of June. Inspector Dibbles was re-elected President; Mr. W. B. Wiggins, B.A., was chosen Vice President, and Mr. Jacob W. Sherwood Secretary-Treasurer. The following papers were read:—(1) "The privileges conferred on teachers by the 23rd Regulation (providing for the organization of the Provincial and County Institutes), and the responsibility resting on members of the profession to exercise these with diligence, earnestness and dignity," by Mr. W. A. Smythe;)2) "The importance of earnestness in the teacher's work," by Mr. W. B. Wiggins, (3) "The importance of neatness and cleanliness in the school-house and school premises," by Mr. H. T. Parlee; (4) "The value of a thorough acquaintance with the physical and vocal exercises of the prescribed manual," by Mr. Chas McLean, (5) "Familiar lessons on general conditions of health," by Mr. J. W. Sherwood.

There were also discussions on the question, "How can the teacher best promote regularity of attendance?" and on "School Discipline." Fifty five teachers attended the sessions of the Institute.

MANITOBA.

A quarterly meeting of the Council of the University of Manitoba took place on Thursday, June 5th, at which the following members of Council were present, viz.:—Hon. Joseph Royal, LL.D., Vice-Chancellor, in the chair. Rev. Canon Grisdale, Acting Registrar, Ven. Archdeacon Cowley, B.D., Rev. J. Black, D.D., Rev. Fathers Forget, Chenier and Lavoie, Professors Bryce and Ward, Rev. Messrs. W. C. Pinkham, J. Robertson, S. P. Matheson, O. Fortin, Hon. J. Dubuc, A. G. B. Bannatyne, Messrs. G. McMicken, and J. F. Bain. There were several visitors present, including His Honor Judge Batoumy, Rev. A. E. Cowley, &c., &c.

After reading the minutes of the previous meeting, the Council discussed some private matters relating to the educational interests of the University.

The successful candidates in the recent examination were now summoned from the waiting room and were presented to the Vice-Chancellor. After they had taken their seats, the results of the examination were read by the acting Registrar as follows:—

NATURAL SCIENCE.

HONOR COURSE.—*1st Class*—Mr. W. R. Gunn, Manitoba College, Chemistry, Chemical Physics, Comparative Physiology, Botany. *2nd Class*—Mineralogy, and ⅔ marks in past subjects of Logic, and Moral Philosophy.

PREVIOUS EXAMINATIONS.

CLASSICS.—*1st Class*—1st, R. Machray, of St. John's College, 344 marks, 2nd, N. Betournay, St. Boniface, 325 marks, 3rd, P. Haverty, St. Boniface, 321 marks; 4th, R. F. McLennan, St. John's, 317 marks; 5th, W. T. B. Kennedy, St. John's, 305 marks; 6th, L. J. Clark, St. John's, 302 marks; 7th, J. B. Polworth, Manitoba College, 286 marks. *2nd Class*—1st, G. Munroe, Manitoba College, 238 marks; 2nd, A. G. Pinkham, St. John's, 212 marks. *3rd Class*—1st, D. R. Sinclair, St. John's, 138 marks. Special examination in Classics, W. A. Burman, St. John's, 307 marks.

MODERN LANGUAGES.—*1st Class*—1st, R. Machray, 278 marks; 2nd, P. Haverty, 251 marks; 3rd, N. Betournay, 239 marks; 4th, L. J. Clarke, 222 marks, 5th, W. G. B. Kennedy, 220 marks; 6th, R. F. McLennan, 213 marks. *2nd Class*—1st and 2nd, G. Munroe and J. B. Polworth (equal), 183 marks, 3rd, A. G. Pinkham, 182 marks; 4th, D. R. Sinclair, 167 marks.

NATURAL SCIENCE (*Botany*).—*1st Class*—1st and 2nd, L. J. Clarke and J. B. Polworth (equal), 54 marks. *2nd Class*—1st, N. Betournay, 51 marks; 2nd, P. Haverty, 50 marks; 3rd, R. Machray, 45 marks; 4th, D. R. Sinclair, 42 marks; 5th, W. T. B. Kennedy, 40 marks. *3rd Class*—1st and 2nd, R. F. McLennan and G. Munroe (equal), 38 marks; 3rd, A. G. Pinkham, 35 marks.

MATHEMATICS.—*1st Class*—1st, W. T. B. Kennedy, 203½ marks. *2nd Class*—1st, R. Machray, 177½ marks; 2nd, P. Haverty, 175 marks; 3rd, G. Munroe, 168½ marks; 4th, R. F. McLennan, 159½ marks; 5th, L. J. Clarke, 155 marks. *3rd Class*—1st, N. Betournay, 128½ marks; 2nd, J. B. Polworth†, 103 marks; 3rd, A. G. Pinkham*, 94 marks; 4th, D. R. Sinclair*, 59 marks.

PRELIMINARY EXAMINATION.

Classics—R. McLean, Manitoba College, 97; W. M. Omand, Manitoba College, 154; R. R. Sutherland, Manitoba College, 111.

Modern Languages—R. McLean, 102; W. M. Omand, 86; R. R. Sutherland, 108.

Mathematics—R. McLean,* 55; W. M. Omand, 110½, R. R. Sutherland,* 87. Supplemental examination in Mathematics—A. E. McPhillips, Manitoba College, 130.

* Required to take Algebra, Euclid and Arithmetic over again. † Required to take Algebra and Euclid again

SUMMARY.

GRAND TOTALS.—*In order of merit.—Honor Course*—Maximum number of marks, 700. W. R. Gunn, 479 marks.

Previous Examinations—Maximum marks, 1180; 1st. R. Machray, 844½; 2nd, P. Haverty, 797; 3rd, W. T. B. Kennedy, 768½; 4th, N. Betournay, 743½; 5th, L. J. Clarke, 739; 6th, R. F. McLennan, 727½; 7th, G. Munroe, 627½; 8th, J. B. Polworth, 626; 9th, A. G. Pinkham, 523; 10th, D. R. Sinclair, 397.

Preliminary Examination—Maximum marks, 759—1st, W. M. Omand, 350½; 2nd, R. R. Sutherland, 306; 3rd, R. McLean, 254.

Thus it will be observed that all the Colleges in affiliation with the University sent up students for examination.

The Vice Chancellor then informed Mr. R. Machray that the Governor-General's silver medal had been awarded to him, as the most successful student in the "previous examination," and that it would be presented to him on its arrival from Ottawa.

The closing concert at the St. John's College Ladies' School took place on Monday, 2nd June. It was highly successful, and elicited a great deal of praise for the Lady Principal, Mrs. A. E. Cowley, and her assistants. The following was the programme: PART I.—1. Piano Duet, "Schottische," Maud Mair, M. Begg; Piano Solo, "Minuet de Mozart," A. Budd; 3. Recitation, "Songs of Seven," (J. Ingelow); 4. Part Song, "The Chimes," (Hullah) Junior Singing Class; 5. Piano Trio, "Non plu andrai," M. Ross, M. Rowan, F. Inkster; 6. Song, "A Little Flower," R. Fonseca; 7. Piano Solo, "2 Lieder ohne Worte," (Mendelssohn) B. Bunn; 8. Vocal Duet, "I know a Bank," (Horn) M. George, A. Phair; 9. French Dialogue (Moliere), H. Beddome, A. Schneider; 10. Part Song, "Sweet and Low," (Barnby) Senior Singing Class; 11. Piano Quartette, "Titania Galop," (S. Smith) M. McLean, J. Reid, A. Phair, J. Morice. PART II.—1. Piano Trio, "Massaniello," (Auber) A. Schneider, R. Fonseca, J. Hargrave; 2. Piano Solo, "Grand Valse" (Chopin) M. George; 3. Scenes from "Athalie," (Racine) F. and M. McLean, A. Budd, A. Phair; 4. Part Song, "Oberon," (Weber) Senior Singing Class; 5. Piano Solo, "Invitation a la Valse," (Weber) F. McLean; 6. Song, "Sombre Foret" (William Tell) M. George; 7. Scenes from "Queen Mary," (Tennyson) Senior Pupils; 8. Piano Quartette, Overture to "Tancredi," F. McLean, M. George, B. Bunn, A. Budd; 9. Vocal Trio, "Lift Thine Eyes," (Mendelssohn) M. George, A. Phair, B. Bunn; 10. Duet on two pianos, Airs from "Il Trovatore," Mrs. A. Cowley and A. McLean. Awarding of Prizes. God Save the Queen.

The following prizes were awarded by Mrs. Cowley.—

Silver Medal, to A. Phair, 256 out of 300 marks.

Bronze Medal, for term work, F. McLean.

Singing and Music Prize—M. George. Music Prize—M. McLean, M. Ross, R. McDonald. H. M. for music—F. McLean, M. Lusted. H. M. for singing—B. Bunn.

Conduct Prizes.—Boarders—M. McLean. Day Scholars—M. Bannerman, T. Inkster, L. Bruce. H. M. for conduct—A. Budd.

French prize—M. McLean.

English essay prize—J. Morice.

* Required to take Euclid again. † Required to take Algebra, Euclid and Arithmetic over again.

EXAMINATION PRIZES.

F. McLean, 9, 8, I. class; M. McLean, 10, 11, do.; A. Phair, 8, 9, do.; A. Budd, 6, 10, do.; J. Morice, 7, 6, do.; R. McDonald, 8, 0, do.; T. Inkster, 7, 0, do.; M. Ross, 0, 7, do. H. M. for examinations—M. George.

H. M. for sewing—L. Bruce.

MUSIC LIST.

For the year—M. McLean, 52 marks; F. McLean, 51; B. Bunn, 42; R Fonseca, 34; J. Morice, 32. M. George, 55; J. Reid, 32; M. Ross, 51; A. Phair, 48; A. Budd, 45; A. Scneider, 30. Singing—M. George, 51; N. Fonseca, 45; B. Bunn, 40; A. Phair, 31; Rosie, 34; E. Tait, 31; A. Bunn, 27; F. Inkster, 25; B. Lauder, 24; C. Bird, 21; A. Codd, 21; L. Nixon, 17.

YEAR'S CLASS.

Work—1, F. McLean; 2, M. McLean; 3. A. Budd; 4, M. Ross; 5, M. George; 6, A. Phair; 7, L. Bruce; 8, M. Bannerman; 9, F. Inkster; 10, R. McDonald; 11, J. Reid; 12, J. Morice, E. Tait; 13, B. Bunn; 14, A. Inkster; 15, A. Codd; 16, R. Fenseca; 17, L. Nixon; 18, B. Lauder; 19, Mag. Mair; 20, S. Bird; 21, A. Schneider; 22, A. Bunn; 23, M. Rowand.

CONDUCT.

Boarders—1, M. McLean, 261 marks; 2, A. Budd, 254, 3, F. McLean, 247; 4, M. Rose, 237; 5, M. George, 219; 6, J. Reid. 218; 7, E. Tait, 218; 8, R. McDonald, 211; 9, E. Reid, 206; 10, M. Rowand, 177; 11, A. Phair, 146; 12, B. Lauder, 115.

Day scholars—F. Inkster, M. Bannerman, L. Bruce, 176 marks; 4, A. Inkster, 154; 5, J. Morice, 131; 6, A. Schneider, 114; 7, A. Codd, 112; 8, Ciccie Bird, 100.

At St. John's College, the Governor General's silver medal for proficiency in ancient and modern history was awarded to James McKay, of the fifth form.

The Governor General's bronze medal for general proficiency was awarded to John A. MacKay, of the Fourth Form. A purse of $10 was presented to J. W. Matheson, for special merit in the competition for the bronze medal at Manitoba College. The Governor General's silver medal was awarded to John Bruce Polworth, of the Third Form, and the bronze medal to William Omand, of the Second Form.

The Protestant board of school trustees for Winnipeg are discussing the propriety of establishing a higher department in the public schools, and talk of memorializing the Board of Education on the subject.

The Society for Promoting Christian Knowledge has promised the Bishop of Rupert's Land one thousand pounds sterling towards the erection of new college buildings, the estimated cost of which is $25,000. The same society has also given five hundred pounds sterling towards the endowment of the Professorship of Exegetical Theology in the College, the present occupant of which is Rev. Canon O'Meara, M.A.

FOREIGN.

From 6,000 pupils of the primary grades of the Indianapolis schools, no home study is required. Only one child in forty, below the high school, studies more than 1½ hours daily outside the school-room.

For the half-year ending 31st December, 1878, the London (Eng.) School Board had 444,322 pupils on the roll, with an average attendance of 350,507. In 1871, before the School Board established their first school, the number on the roll of all efficient schools was 222,578, and the average attendance 174,301.

Learning to read under professors of elocution is said to be more popular with Paris young ladies than learning to play on the piano.

At Sheffield, several lads have been ordered to be sent to the Truant School, just opened by the Sheffield School Board. This school is intended for lads who are incorrigible, and who cannot be induced to be regular in their attendance at school. The magistrates ordered that the lads should be kept there until they are sixteen years of age; but on their amending, they can be let out on license.

"In England, pauperism and crime cost five times as much as education; but in Sweden, education costs five times as much as pauperism and crime. Let us emulate Sweden and not England."

Mr. Goldwin Smith recently sent the following letter to the *Mail*:—Sir,—Among your items of English intelligence I see the following:—"The question of elevating Owens College, Manchester, to the dignity of a University, originated by Mr. Goldwin Smith ten or twelve years ago, has again been revived." This may seem somewhat at variance with the letter from me, referring to the petition of Owens College for a charter, and depreciating the multiplication of universities which appeared in the same number of your journal. The fact, however, is that what I proposed, more than ten or eleven years ago, was not the erection of Owens College into a university, but the affiliation of Owens College and other large local colleges to the existing Universities of Oxford and Cambridge. I proposed this as the best mode of at once satisfying the growing demand for university education and preserving the historic centres, the integrity of the standard, and the national character of the system. The University of Oxford has now taken up the scheme, and seems inclined to adopt it, though too late in the case of Owens College, Manchester, which, at the time when I first moved in the matter, would probably have been willing to accept affiliation, but has now outgrown such modest aspirations, and demands independent powers.

In the matter of public schools Switzerland stands at the head of the nations of Europe. It has 15 pupils out of every hundred inhabitants, and 7,012 schools, attended by 420,100; the yearly expense for this is $1,741,635, or a little over $4 for each pupil, or $250 for each school. Then in next rank comes Germany, where all the children between the ages of six and fourteen are obliged to attend school. The proportion of pupils is fourteen to 100 inhabitants. There are 60,000 schools, attended by 6,000,000 pupils. The expense is $28,000,000, or nearly $5 a pupil, or $467 a school. France and Denmark occupy the third rank in the proportion of pupils, which is thirteen to every 100 inhabitants. In France there are 71,547 primary schools and 4,502,000 pupils. To these should be added 33,000 evening schools, attended by 850,000 persons. The estimated expense for 1879 is over $12,000,000 or about $2.70 a pupil of the primary school, or $167 a school. Denmark has 2,917 schools, and 267,000 pupils. Her expense is about $3,000,000, or a little over $4 a pupil, or $370 a school.

Belgium and Sweden have each twelve pupils to 100 inhabitants. In Belgium there are 8,300 schools, and 780,000 pupils. The expense is about $5,000,000 or nearly $6 a pupil, or $600 a school. Her expenditure for public education is over $2,000,000, which makes nearly $4 a pupil, or $253 a school. In Holland and Norway the proportion of pupils is the same, eleven for each 100 population. Holland has 3,734 schools and 444,707 pupils. She spends $3,063,617, or about $7 for each pupil, and $820 for each school. In Norway the expense is nearly $1,000,000, but the number of schools and pupils is not given. Spain has nine pupils for each 100 inhabitants, 29,038 schools and 638,288 pupils. She spends over $5,000,000 for this, making over $8 a pupil, and $165 a school. Next comes Austro-Hungary with eight pupils for each 100 in habitants, 29,272 schools and 3,050,000 pupils. The expense of these reaches $14,000,000, or an average of nearly $5 a pupil or $470 a school. Italy has an everage of seven pupils for each 100 inhabitants, 57,411 schools, and about 2,000,000 pupils. She spends for these nearly $5,000,000, or over $2 a pupil, or $113 a school. Greece has six pupils for each 100 inhabitants, 1,380 schools, and 95,000 pupils. She spends about $400,000 for them, or over $4 a pupil, or $292 a school.

England—rich, powerful and civilized England—is about on a par with Greece. She has only an average of six pupils to each 100 inhabitants. It is true that the organization of her public instruction dates only from 1870, and that to-day the organization in her cities is excellent and almost complete, but in the country!—In England, then, there are 58,075 schools, and 3,000,000 pupils; the expense reaches $13,000,000, counting in this the gifts of private parties and the income from foundations, making an average of a little over $4 a pupil, or $227 a school. Portugal, though liberal, has made no great advance in public instruction, though great efforts have been made by her in this direction during the past five years. Her proportion of pupils is only five to each 100 inhabitants, her schools number 4,525, and the pupils 200,000. The expense is not stated.

In Russia there is only one pupil for each 100 inhabitants. The Government which squandered millions for the delivery of "brother Slaves" has established only 34,000 schools and gathered 1,000,000 pupils. It expends over $5,000,000, or $5 a pupil and $153 a school.

Thus Europe has, for a total population of 203,000,000, 370,000 schools and 24,400,000 pupils, or an average of eight for each 100

inhabitants, and spends $97,200,000 for public instruction, or an average of something over $3 a pupil. Compare this with the cost of the barracks, her standing armies, her military taxation, or even the expense of her criminals, her prisons or her courts of justice. The statistical data for all these have not as yet been gathered, but the cost of the army and navy for the six leading nations of Europe and those of the schools are:

	Army and Navy.	Schools.
Austro-Hungary	55 millions.	14 millions.
France	133 "	12 "
Germany	93 "	28 "
England	121 "	13 "
Italy	45 "	5 "
Russia	164 "	5 "

ANSWERS TO QUERIES.

W. H. G., *Ashgrove*,—The Second-Class Professional Examination includes, The Art of Teaching, Education, Music, Drawing, Drill and Calisthenics, Hygiene, Mental Arithmetic, and Practical Chemistry.

2. Each successful Second-Class Candidate has been paid by the Education Department his travelling expenses and two dollars per week while in attendance at the Normal School. The weekly grant ceases after July 1st, 1879.

G. M., *Harwich*.—United States degrees have little practical value in Canada. They are not recognized by Toronto University.

J. S., *Scugog*.—The farmer should build one-half of the fence.

I., *Bowmanville*.—You cannot enter a Normal School for professional training until you have taught a year.

SUBSCRIBER, *Allenford*.—1. For list of subjects see Compendium of School Law, page 235.

2. The children should be returned as non-residents unless their parents reside in the section whose school they attend.

D. W., *Wellesley*.—Ontario Commercial College, Belleville, has announced a summer course for teachers.

P. B.—There will probably be no Intermediate Examination at Christmas this year.

S. H. C.—The best Drawing Books are Walter Smith's. Get his Intermediate Manual.

Readings and Recitations.

THE OWL-CRITIC.

A LESSON TO FAULT-FINDERS.

"Who stuffed that white owl?" No one spoke in the shop;
The barber was busy and he couldn't stop;
The customers, waiting their turns, were all reading
The *Daily*, the *Herald*, the *Post*, little heeding
The young man who blurted out such a blunt question;
Not one raised a head, or e'en made a suggestion;
And the barber kept on shaving.

"Don't you see, Mr. Brown,"
Cried the youth, with a frown,
"How wrong the whole thing is,
How preposterous each wing is,
How flattened the head is, how jammed down the neck is—
In short, the whole owl, what an ignorant wreck 'tis?
I make no apology;
I've learned owl-ology.
I've passed days and nights in a hundred collections,
And cannot be blinded to any defections
Arising from unskilful fingers that fail
To stuff a bird right, from his beak to his tail.
Mister Brown! Mister Brown!
Do take that bird down,
Or you'll soon be the laughing-stock all over town!"
And the barber kept on shaving.

"I've *studied* owls,
And other night fowls,
And I tell you
What I know to be true:
An owl cannot roost
With his limbs so unloosed;
No owl in this world
Ever had his claws curled,
Ever had his legs slanted,
Ever had his bill canted,
Ever had his neck screwed
Into that attitude.
He can't *do* it, because
'Tis against all bird laws.
Anatomy teaches,
Ornithology preaches,
An owl has a toe
That *can't* turn out so!
I've made the white owl my study for years,
And to see such a job almost moves me to tears!
Mister Brown, I'm amazed
You should be so gone crazed
As to put up a bird
In that posture absurd!
To *look* at that owl really brings on a dizziness;
The man who stuffed him don't half know his business!"
And the barber kept on shaving.

"Examine those eyes.
I'm filled with surprise
Taxidermists should pass
Off on you such poor glass;
So unnatural they seem
They'd make Audubon scream,
And John Burroughs laugh
To encounter such chaff.
Do take that bird down;
Have him stuffed again, Brown!"
And the barber kept on shaving.

"With some sawdust and bark
I could stuff in the dark
An owl better than that.
I could make an old hat
Look more like an owl
Than that horrid fowl,
Stuck up there so stiff like a side of coarse leather.
In fact, about *him* there's not one natural feather."

Just then, with a wink and a sly normal lurch,
The owl, very gravely got down from his perch,
Walked round, and regarded his fault-finding critic
(Who thought he was stuffed) with a glance analytic,
And then fairly hooted, as if he should say:
"Your learning's at fault this time, anyway;
Don't waste it again on a live bird, I pray.
I'm an owl; you're another. Sir Critic, good-day!"
And the barber kept on shaving.

—JAMES T. FIELDS, *in Harper's Magazine for July*.

A SCHOOL-DAY MEMORY.

Long years ago a winter's sun
Shone o'er the school at setting;
Lit up its western window panes,
And low eaves' icy fretting.

It touched the tangled golden curls
And brown eyes full of grieving,
Of one who still her steps delayed
When all the school were leaving.

For near her stood the little boy
Her childish favor singled,
His cap pulled low upon a face
Where pride and shame were mingled.

Pushing with restless feet the snow
To right and left, he lingered,
As restlessly her tiny hands
The blue-checked apron fingered.

He saw her lift her eyes; he felt
The soft hand's light caressing,

And heard the trembling of her voice,
As if a fault confessing.

"I'm sorry that I spelt the word:
I hate to go above you,
Because"—the brown eyes lower fell—
"Because, you see, I love you."

Still memory to a grey-haired man
That sweet child-face is showing.
Dear girl! the grasses on her grave
Have forty years been growing!

He lives to learn, in life's hard school,
How few who pass above him
Lament their triumph and his loss,
Like her, because they love him!—*Whittier.*

Teachers' Associations.

The publishers of the JOURNAL will be obliged to Inspectors and Secretaries of Teachers' Associations if they will send for publication programmes of meetings to be held, and *brief* accounts of meetings held.

SOUTH ESSEX.—A very successful meeting of the South Essex Teachers' Association was held in Kingsville, June 12th and 13th, 1879. The following officers were appointed: President, Mr. D. A. Maxwell, I.P.S.; Vice-President, Miss M. J. Johnston; Secretary and Treasurer, Mr. G. E. Wightman; Auditors, Mr. Long and Mr. Chisholm. Mr. Maxwell reported that he had obtained 120 volumes for the Teachers' Library, and that he hoped to obtain more during the holidays.

The following subjects were discussed: Writing, introduced by Mr. Chisholm; Arithmetic, by Mr. Henning; Literature, for fourth class, by Mr. Wightman, English History, by Mr. Stacy; School Hygiene, by Mr. Russell; English, for fifth class, by Mr. Hyslop. Mr. Maxwell read an essay on the "Laws of Teaching," which was highly appreciated by the teachers, and he was requested to publish the same in the local papers.

The circular from the Waterloo Teachers' Association was discussed, and the following resolution adopted:—Resolved, that this Association cannot entertain the proposition of the Waterloo Teachers' Association, deeming it improper that any change should be made in the present Law and Regulations respecting Third Class Teachers' qualifications except that the County Model School training be for three months instead of two.

The plan of holding a competitive examination in connection with the County Agricultural Fair was discussed, and Messrs. Long, Henning and Maxwell were appointed a committee to wait on the directors, and if the plan seemed feasible, arrange matters with regard to the same. It was also resolved to continue the system of monthly examinations with two promotion examinations in the year, namely, in March and November. All the teachers agreed that the monthly examinations were of great value in imprinting the subjects taught on the minds of the pupils.

EAST VICTORIA.—The third half-yearly convention of the East Victoria Teachers' Association was held at Lindsay, on Friday and Saturday, May 30th and 31st. The subjects introduced and discussed were as follows: Advantages of Teachers' Institutes, Mr. Dobson, Lindsay High School; Prosody, Mr. Knight, P. S. Inspector; Interest, Mr. Wood, Fenelon Falls; English Literature, Mr. Earle, Peterborough Collegiate Institute; Physical Geography, Mr. Cooke, Lindsay High School; School Music, Mr. Knight, P. S. Inspector; Questioning Miss Panton, Peterborough Public School; Reading from Macaulay's Lays of Ancient Rome, Mr. Cooke, Lindsay High School; Words, Mr. Dobson, Lindsay High School; Answers to Question Drawer, Committee; Object Lesson on Sponge with class, Miss Blisdell, Peterborough Public School. On Friday evening the exercises were enlivened by excellent vocal music by the pupils, under the direction of Miss Peplow and Mr. McFaul.

J. H. KNIGHT,
Lindsay, 17th June, 1879. P. S. Inspector.

NORTH HASTINGS.—A card from the Secretary of Waterloo Teachers' Association, depreciating the training of Third Class Teachers in Public Schools, so far as the non-professional subjects are concerned, suggesting that all teachers be required to pass the Intermediate before attending County Model Schools, and raising the age of candidates to 20 and 10 years respectively, was read.

Mr. Mackintosh, I. P. S., and Messrs. Kirk, Fuller and Thompson having spoken adversely, a committee appointed for the purpose drew up the following resolution, which was unanimously adopted:

"That this Association, in regard to the abolition of Third Class Certificate non-professional examination, and the substitution therefor of the Intermediate examination, are decidedly of the opinion that at the present time any such change would, instead of promoting the educational interests of the Province, operate prejudicially.

"This Association is still further of the opinion that frequent changes in the standard of Teachers' Examinations are unwise. They would respectfully suggest to the Hon. the Minister of Education, that immense benefits would accrue to the cause of popular education were our Normal School system increased in efficiency. Well-considered and wise efforts made in that direction would do much to solve many of the educational problems now demanding solution."

Mr. Geo. Kirk then discussed "Preparation of Home Lessons on part of Teacher," giving specimens of notes upon various subjects. Afternoon Session—Upon motion, Mr. G. A. Thompson was appointed delegate to the Provincial Teachers' Association. Mr. W. Mackintosh then took up "Reading to Tablet Classes," going into detail and thoroughly discussing the intellectual method of teaching reading to tablet classes. By request Mr. Mackintosh gave his notes to the Association for publication. Mr. G. A. Thompson then gave a reading entitled, "Why Do Coureys are permitted to appear covered in presence of Royalty." Mr. Mackintosh then proceeded to show how reading should be taught to Senior Classes, giving valuable suggestions and hints upon teaching this important study and class drill. The pupils of the Madoc Model School, led by the Principal, sang several pieces with good effect, at intervals, during the afternoon session.

GEORGE KIRK, Secy.

EAST GREY TEACHERS' ASSOCIATION.—The fourth semi-annual meeting of the above Association was held in Andrews' Hall, Thornbury, on Thursday and Friday, the 29th and 30th days of May. There were about sixty members present. The following programme was followed, viz.: Book-keeping, by G. T. Evans, Principal of the Meaford Public Schools; Moral Training, by Miss Tolton, Assistant in Meaford Schools; Quadratic Equations, by John Tait, of the Collingwood Collegiate Institute; The Teacher out of the School Room, by Malcolm McKinnon, of the Meaford Schools; Chemistry, by Hiram G. Smith, Teacher S. S. No. 13, Collingwood and Nottawasaga, Reading and Elocution, by Henry De LeMatter, Head Master of the Owen Sound High School; Practical Education, by J. Farewell, Editor of Standard; How to Teach Grammar, by George Lindsay, principal of the Griersville School; Object Teaching, by Mary Logan, Teacher S. S. No. 11, St. Vincent; Geography, by John Hewgill, Principal of the Thornbury Public Schools. A Question Drawer was also established in connection with the Association. On the evening of the first day the teachers gave an entertainment in the Hall. They were, as usual, kindly assisted by the Clarksburg Band and Thornbury Glee Club. The East Grey Teachers' Association is in a very prosperous condition, and a great deal of interest in educational matters is manifested by all its members. Mr. H. De LeMatter, of the Owen Sound High School, was made an honorary member of the Association.

SOUTH SIMCOE.—The annual meeting of the South Simcoe Teachers' Association was held on May 30th and 31st, in the Central School, Barrie. The attendance was unusually large, and the meeting proved most interesting and successful. On the first day the programme followed out was as follows:—"Object Lessons," Mr. F. Wood, Head Master Model School, Bradford; "Music," Mr. J. M. Sawyers; "Notation and Mensuration," Mr. Robert Greenlees; "Drawing," Mr. Thos. Henderson; "Reading," Mr. Kennedy, High School, Bradford. In the evening Prof. Young delivered a lecture before the body on "Some of the Relations of Psychology to Education;" on the second day, Mr. W. Neilly, "Grammar to Juniors:" "Uses and Abuses of Prizes," Mr. W. B. Harvey, Head Master Model School, Barrie. The following officers were appointed for the ensuing year: Rev. W. McKee, B.A., President; F. Wood, Vice-President; W. Neilly, Secretary and Treasurer; Committe, Rev. Thos. McKee and Messrs. Ryerson, Hipwell, Henderson, and Rankin. It was decided to hold the next meeting at Beeton on the 31st October.

WM. NEILLY, Secretary.

SOUTH HASTINGS.—The semi-annual meeting of this Institute was held in the Central School, Belleville, on 29th and 30th May. Dr. McLellan, Sr., High School Inspector, was present, and took an active part in the proceedings. The following officers were elected for the ensuing year. President, J. Johnston, I.P.S.; Vice-President, H. M. Hicks, M.A.; Secretary-Treasurer, S. A. Gardner. After the opening address by the President, the following subjects were taken up. "Tablets," Miss J. MacInnes; "Arithmetic to Juniors," T. Kinney; "Algebra," Dr. McLellan; "Self-Culture," an essay, by Mr. Thos. O'Hagan, Head Master Separate School, Belleville; "Grammar to Juniors," Mr. Irvine, Head Master County Model School; and "Physical Geography," Mr. Millburn, Belleville High School. In the evening a conversazione was held in the City Hall, which was crowded to its utmost capacity, with an intelligent and appreciative audience, and an excellent programme was given. "Phrenology and the benefits teachers would derive from its study," Mr. Kinny and Mr. Anderson; "Second Book," Miss Potter; A paper on "History," by Miss Templeton; "Composition," H. M. Hicks, M.A., Head Master Trenton High School; "The Teacher of Yesterday, To-day, and To-morrow," an essay by Mr. Parker; "Arithmetic," Dr. McLellan, and "Drawing," Miss Stewart," completed the programme. After this Dr. McLellan, at the request of several teachers, explained some of the difficulties in factoring. On the motion of Prof. Dawson, seconded by Mr. J. W. Dafoe, it was resolved that Dr.

McLellan be asked to prepare and publish a work on Algebra, which shall take up more particularly those portions of the subject that are only slightly treated of in the authorized text-books. The attendance was very large and the whole affair a success At the close Dr. McLellan addressed the teachers on the educational outlook at present, after which the Institute adjourned.

The Teachers' Association for Division No. 1, Lambton, was held at Forest on the 8th and 9th May, and was very successful. The following subjects are discussed by the Teachers History, Geography of Ontario, Uniform Examinations, Lowest Common Multiple, Grammar to Junior Classes, Third Class Literature; Algebra and Euclid by Dr. McLellan. His lessons were excellent, and teachers who are preparing for any examinations cannot fail to be highly benefitted. On the evening of Thursday he lectured on National Education. The audience was very large, and was highly appreciated. The Doctor is a very great favorite with the teachers and also the citizens of Forest and the surrounding districts, and his visits will always be looked forward to with pleasure. There is no doubt that such meetings as we have had in Forest, and such lectures, will have a tendency to create an interest and sympathy in the teachers' work by the public generally. The next Association is to be held at Wyoming.

LANARK.—The semi-annual meeting of the County of Lanark Teachers' Association was held in the Convocation Hall of the High School Perth, on June the 6th and 7th. The attention of teachers, those preparing to enter the profession, and others interested in education, was large. H. L. Slack, M.A., I.P.S., President of the Association, occupied the chair. The morning of the first day was taken up in the transaction of general business and the election of officers for the current year which resulted as follows: President, H. L. Slack, M.A., I P.S.; Vice-President, P. L McGregor, B.A., H. M. Almonte H. S; Sec'y-Treas, J. S. Stewart, Eng. Master Perth H. S.; Committee of Management, Messrs. H Beer, J. R Anderson, F. J. Allan, and Messrs. Addison and Horseburg. In the afternoon F. L. Mitchell, B.A., H. M. Perth H. School, read an excellent paper on History, in which he forcibly exposed the many obscure systems employed in teaching this subject, and at the same time pointed out the true way in which to present it to both junior and senior classes. Dr. McLellan then gave a blackboard exposition of many new and original principles in Algebra and Factoring His application of the principle of symmetry was the most striking feature in his lecture, and evidenced his comprehensive knowledge of the subject and great mathematical ingenuity. A treatise on this very important department of Algebra, by a master hand like Dr. McLellan, would be welcomed by the teachers of our Province. Miss Hartburg, first lady assistant in Perth Model School, followed in a carefully prepared essay on Geography to Junior Classes. The morning session of Saturday opened at nine o'clock. E. L. Curry, B.A., Classical Master Perth H. S., read an interesting paper on "Shakespeare as a Builder." He was followed by Henry Beer, H. M. Perth Model School, who gave his opinions on "Cram." Mr. Beer has given many excellent papers on school management and class work to the Association, and this was not by any means an exception. J. H. Stewart, English Master Perth H S., then discussed the Subjunctive Mood. The afternoon session was mainly occupied by Dr. McLellan in an able and lengthy address on Reading. President Slack, in expressing his appreciation of the speaker's presentation of the subject, impressed on teachers the importance of endeavouring to teach reading as so ably set forth by Dr McLellan. On the evening of Tuesday, Dr. McLellan gave his lecture on "This Canada of Ours," respecting which and his work amongst the teachers of this county the *Perth Courier* says. "A public lecture, on 'This Canada of Ours,' was delivered on Friday evening, in the Town Hall, by Dr. McLellan, to a large and highly appreciative audience."

Official Department.

REGULATIONS ADOPTED BY ORDER IN COUNCIL.

The undersigned respectfully begs to report to His Honor the Lieut.-Governor the following respecting the Education Department:—

1. The regulations as to second-class certificates of qualification to teach in the Public Schools are respectfully recommended to be amended so as to provide that in the case of a Public School teacher who has successfully taught in a school for at least three years before the 18th day of August, 1877, a second-class certificate may be awarded to such teacher upon successfully passing the non-professional examination for such certificate, and upon satisfactory proof being furnished to the Minister of such period of teaching service, and that it shall not be necessary that any such teacher shall be required to attend a Normal School.

2. No member of a County Board of Examiners shall be concerned in examining or valuing papers of any candidate who has been instructed by him or in the school with which he is connected, and the presiding Inspector will see that this rule is observed; but it is recommended that all the members of the County Board (having due regard to the above exception) shall be present at the examination of third-class teachers from the first day of the examination, and that such members as are not engaged as presiding examiners shall, as the answers are handed in by the candidates, proceed with the necessary work of their examination. County treasurers and other officials are authorized to pay such expenses as are properly incurred by the County Board in connection with these duties

3 High School Boards may, in pursuance of the amended Act of 1879, impose at the examination for admission such fee, not exceeding one dollar per pupil, upon candidates being the children of non-residents who are not liable to pay county or municipal rates for the support of such school; but no fee for examining for admission in other cases shall be exacted by any High School Board.

Respectfully submitted.

(Signed) ADAM CROOKS,
Minister of Education.

Education Department,
Toronto, 12th June, 1879.

BOOK REVIEWS.

NOVELLO'S MUSIC PRIMERS. *Novello, Ewer & Co., London, England.* It is well known that the name Novello is recognized as almost synonymous with first-class music. The primers under review are two in number: Rudiments of Music, by W. H. Cummings, and Harmony, by Dr. Stainer. Both primers are simple and easily understood, and teachers will find them valuable aids in the thorough study of the important subjects of which they treat.

A COLLECTION OF SECULAR MUSIC FOR THE USE OF SCHOOLS. By James Tilleard. *Novello, Ewer & Co., London. One shilling.* This is a work of long standing, and contains 52 selections, About one-half are German airs Several of the pieces are already popular in Canada.

THE SCHOOL ROUND BOOK. By Dr. Stainer. *Novello, Ewer & Co., London. Eightpence.* This contains one hundred Rounds and Catches, many of which can easily be taught in an ordinary school. This class of music forms a pleasant variety, and should have a place in all school singing.

COMMON HYDROIDS, CORALS, AND ECHINODERMS. By Alpheus Hyatt. *Boston, Ginn and Heath.* This is No. 5 of the Guides for Science Teaching issued by the Boston Society of Natural History for the assistance of teachers in teaching science in a simple and natural manner. The work is fully illustrated, and would greatly aid teachers not only in the way above indicated, but in making collections for their school museums.

ELEMENTARY TREATISE ON PHYSICS, EXPERIMENTAL AND APPLIED. Translated and edited from Ganot's Elements de Physique by E. Atkinson, Ph.D., F.C.S. Eighth edition, revised and enlarged. *Longmans.* This is a revised and improved edition of a work which has already been favorably noticed in the JOURNAL. In this edition the questions and exercises given in the 7th edition have been freed from typographical and numerical errors; and about 60 pages of new matter, including 62 additional illustrations, have been added. It is the best work on Elementary Physics that has yet come under our notice; the large number of *solutions* and *exercises* given in the appendix forms a most valuable feature We are frequently asked by candidates for first-class certificates, and others, what work on Physics is most suitable for their purpose, to such we recommend this work without hesitation. It should be in every teacher's library. Though the work contains over 900 pages, it is published at the moderate price of 15 shillings It is not a mere mass of heterogeneous materials apparently thrown together to exhibit the encyclopædic learning, or perhaps we should say *reading* of the compiler. It is the work of a thoroughly judicious and accomplished *teacher* and scholar.

GRAY'S POEMS, with Johnson's Life, and selections from Gray's Letters. By Francis Storr, M.A. *Rivingtons.* The editor of this edition of Gray's poems is already favorably known through his excellent editions of English school classics This edition of Gray is quite equal to any of his former efforts.

HEARING AND HOW TO KEEP IT. *Philadelphia, Lindsay and Blakiston Toronto, Hart and Rawlinson, 50 cents.* This is the first of a comprehensive series of Health Primers to be issued by the same publishers. They are to be prepared by distinguished specialists, and judged by the first of them they will be of great value to all who wish to preserve their own health or care for the health of others. The primer under review discusses the structure of the ear, the diseases of the ear, and how to care for the ear both in health and disease. The latter portions are of especial value, as many of the imprudent practices of mothers and nurses in the treatment of the ears of children are clearly exposed. The illustrations are very fine.

MAGAZINES.

Teachers should take some of the July magazines to read during the holidays.

SCRIBNER'S MONTHLY. Probably the most important feature of the July *Scribner* (and one to be continued in the Midsummer Holiday number) is the reprint of the celebrated engravings, made several years ago by Mr. Henry Marsh, for Harris' "Insects Injurious to Vegetation,"—a volume issued by the Massachusetts late Board of Agriculture, and necessarily at such expense as to put it beyond the reach of the general public. The papers in *Scribner* are entitled "Summer Entomology," the first dealing with moths and butterflies, with most beautiful and accurate illustrations, the drawings having been approved by the late Professor Agassiz. In order to bring out to their utmost the delicate gradations and softness of these cuts, they will be printed upon extra-calendered paper. It is no exaggeration to say of these engravings that they have never been equalled in Natural History work. In "Topics of the Time," Dr. Holland discusses "Engravings on Wood," "Mr Riddle's Book," and "College Instruction," in "Communications," are "A Women's Thoughts on the Education of Women," "Home and Society" treats of "Decoration of the Dinner Table," "A Military Education at West Point," etc. The Book Notices have importance and variety, and include a discussion of Matthew Arnold's essays on Equality and Democracy. "The World's Work" gives accounts of a "Novel Method of Testing Iron Wire," "Improved Refrigerating Apparatus," "New Method of Making White Lead," "Removing Metallic Substances from Grain," etc., etc., "Bric-a-Brac" contains some novelties within its well-defined range of fancy and humor.

ST NICHOLAS has eight extra pages and over illustrations. It is full of beautiful pictures, spicy stories, pretty poems; and is a cyclopædia of good things for young and old.

The contents of *Appleton's Journal* for July are as follows: "Ricarda," a story, by Mary Wager-Fisher, "Reforms in Asiatic Turkey," by one who has lived there, "Italian Sketches. I. The Homes of the Plaster-Image Men, II Italian Moving, by Linda Villari, "The Seamy Side," a novel, by Walter Besant and James Rice, chapters VII to IX., "The Midway Inn," by James Payn; "Conspiracies in Russia," by Karl Blind, "Moralists on Blue China;" "Mr. Browning's Dramatic Idyls;" "The Queen's Private Apartments at Windsor," "The Rose of Love," a poem, by Marie Le Baron. Then follow the editorial departments. The editor writes of Reflection of National Character in Literature and Art; Town Spaces and Town Gardens, The Increase of Melancholy. Books of the Day. Symonds's Renaissance in Italy; Burroughs's Locusts and Wild Honey, English Men of Letters, "Spencer" and "Burns," The Secret of Success, Ruskin on Painting, Wanderings in Patagonia; Handbook of College Requirements; Motley's Dutch Republic; Lettingwell's Reading Book of English Classics; Appletons' Handy-Volumes.

THE WESTERN, July and August.—This number is interesting to teachers mainly on account of an article by Wm. M. Bryanton. The essential Phases of Education, and the Current Notes. It has a very good story entitled Protoplasm.

HARPER'S MONTHLY is all a magazine could be for giving amusement and interest. It would be difficult to name a class of readers who would not find in it something exactly prepared for them. It is literally full of excellent pictures; and its stories, records of travel, poems, &c., are of a high order. Teachers will find fifty years of American Art, and the Literary, Scientific and Historic records of profit as well as interest.

PEEPSHOW can not be fully appreciated unless it is seen. Many teachers would take it for the child stories it contains, if they knew the value of them.

HOW TO GO TO SLEEP.

BY HARRIET N. AUSTIN, M. D.

This is a question which I wish no readers of this journal might have need to consider, but that when the time arrives and they retire, sleep should come to them as readily and surely as to the healthy and weary infant. However, if tired nature's sweet restorer has to be courted, how to do it effectually is worth studying. Something may be done beforehand in securing favorable conditions. The manual laborer, retiring with brain free, knows nothing after fairly landing in bed. The difficulty with the brain laborer is to get the brain free, or empty, of thought. Too often such a person knows more after going to bed than before; bright thoughts come easily, perplexing questions solve themselves, brilliant projects are born, but not of sober reason, and they are likely to vanish into thin air in actual living.

Time, and some sort of diversion, between responsible work, study, or solid reading, and retiring, will tend to empty the brain. Whatever diverts blood from that organ favors sleep. Sometimes a brisk but not fatiguing walk, bringing the blood to the external parts and to the extremities, helps. Increasing the circulation to the skin by a quick rubbing of the whole surface with a dry towel or the hands, is good; and if it can be done by an attendant, better. Riding or driving in the evening has a salutary effect. Baths may aid sleep, but space cannot be given in this number to a description of their administration, nor to the regulation of the dietary habits for the same purpose. But, briefly, the habit of taking the last meal (and eating nothing whatever afterwards) some hours, say four or five, before retiring, is beneficial. Tea drinking in the latter part of the day begets sleepiness. Drug taking, of any sort, to induce sleep is depreciable: the end thereof is wretchedness. Whatever is decidedly exciting either to the intellectual faculties, the emotions, or the passions, is unfriendly to sleep.

Absence of light, and pure air are promotive of unbroken and refreshing sleep. Even in midwinter out-door air may be admitted to the sleeping room, if not directly, through an adjoining room, by a slightly opened window; the temperature being modified, if practicable, by artifical heat. The seclusion of all noise, and a bed to one's self, are desirable when convenient. However, things cannot always be had at the best, and fortunately, there is a large element of adaptability in our composition, enabling us to thrive on second or third-rate accommodations if we only have content therewith.

The best bed I know of is a good hair mattress upon a good wire mattress; and the poorest is of feathers. Pillows of hair, medium size; day-garments all removed; and, for cold weather, a warm gown,—wool or cotton flannel,—next the skin; and, if need be, outside of it another flannel one. Of all cases of wakefulness, lying cold is about the most disagreeable and harmful. To secure warmth, thickness of gowns is better than great weight of bed clothes. But anything rather than lying cold,—jugs of hot water, a bed-fellow, even a feather-bed. The hour for retiring should be the same each night, and with persons who can readily fall asleep, I suspect it is well to allow half or three-quarters of an hour for settling up the last affairs of mind and heart. Being ready for sleep, take a comfortable position and persistently keep it. Turning, and tossing, and tumbling about rather increases nervousness than allays it. Resolutely holding yourself still, quiet, drowsiness and sleep steel over you in consequence. If not, then hold the mind still. It is possible to stop thinking. To do so may be very difficult for one not practiced in it. Certainly it is easier to let the thoughts run on automatically, where they will, till away in the small hours, may be. But this unprofitable thinking should be taken under control. Fix the attention closely, and instantly a thought starts out, stop it short. If you relax your watchfulness in the least, the first you know thought will be galloping off in a new direction. But be not discouraged. Though so weary you scarce have the courage to try, nevertheless do try; by and by you will find to your surprise that in the very effort you have dropped off and have really slept. Then, without allowing the mind to become active, do the same thing again. This is my method.

One lady fixes her attention upon an imaginary small spot, a few inches in front of her forehead; one repeats continuously, "He giveth his beloved sleep." Carpenter mentions some plan of gently rubbing some part of the body, and also that of fixing the thought on the action of respiration, mentally following the air in its course through the passages down into the lungs, and out again. I suppose the process in all these methods is really the same: by an effort of the will the mind is taken off the subjects which have occupied it during the day, though holding the attention to some particular object. One writer gives this direction for inducing sleep: "Let the person breathe very quietly, rather deeply, and at intervals, but not long enough to cause the least feeling of uneasiness. In fine, let him imitate a person sleeping, and do it steadily

for several minutes." To get up and stir about in the cool air, perhaps shaking up and making the bed, thus freshening it; to rub or bathe the skin; to lay a wet napkin on the forehead,—any of these may be serviceable on occasion, though one would not wish to establish a habit of rising for these purposes. In truth, the better way is to secure such vigor and tranquility of the nervous system that no reason shall exist for resorting to any of these expedients.—*Primary Teacher.*

TOPICAL SPELLING.

One of the very best methods of conducting a spelling exercise is that by means of *topics*. No other method so readily puts in exercise the perceptive faculties. A word is of little or no value until associated with an idea. No person will remember a list of words from a foreign language unless he is familiar with their meaning; nor will children retain the spelling of a word unless it is something for which they find use in ordinary conversation. The violation of this rule has *miseducated* whole generations of scholars in our public schools. It is astonishing how young teachers, and not a few old ones, settle down on a mere abstraction in all their exercises Children rarely fail to become correct spellers who are taught while young to spell familiar objects around them at their homes. They at once cultivate habits of observation which never leave them. In this respect, parents are the best of teachers to young children. I cannot too strongly recommend the following methods to the consideration of parents and teachers.

1. Tell the whole school to write on their slates fifteen names of objects they can see in the school-room. The first one who has the requisite number raises his hand, and is then requested to copy his list on the blackboard. As soon as this is done, the whole school rise, turn their backs to the board, and spell the words from the board, dictated by the teacher or the pupil. When this is finished the teacher calls upon the school to raise their hands if they have any words on their slates *not* on the board. The teacher points to each one who spells his additional words. In this way, in a few minutes, every object in the school-room is spelled by the whole school; difficult words are noted, and the whole school is *educated* in spelling, so far as the school-room is concerned.

2. For the next exercise, let them rise from their seats, look out of the window five minutes, by your watch, and then spell every thing they can see. Drill them on difficult words.

3. Give them for topics everything they saw on the way to school; everything they can see in a store of goods; everything they can see on a dinner table; names of all kinds of cloth; all the parts of a wagon and harness; names of quadrupeds, birds, reptiles, fishes, insects, shells, garden vegetables, flowers, trees, fruits, metals, rocks and minerals.

4. Let them write the name of every object made of iron, or that has any iron about it; also everything made of wood. A live teacher can draw out of his pupils an immense number of words from the foregoing subjects.

5. Let them write the names of the capitals of the different states in the Union, also, of different countries on the globe.

6 Let them write the names of all the persons living in the school district.

7 Let them write the names of the days of the week, and of the months.

8 Let them write the names of the parts of an apple, a ship, or a house; different kinds of food, and names of different trades.

9. Let them write the names of all the persons necessary to make a loaf of bread, commencing with the felling of trees in the forest. It is said that one thousand different occupations are involved in making a loaf of bread. Let them see how many they can write.

10. For an occasional exercise, let the first pupil in an advanced class spell the name of some town or city, and then let the next mention the name of a town whose first letter is the same as the last letter of the name just spelled.

11. Make the whole school rise, and as soon as any scholar can mention the name of a town in the state, he raises his hand. The teacher asks him to spell it, and he is then seated. When the class are all seated they rise and repeat the exercise, with a new list of words.

12. Tell a class to spell, for their next lesson, all the words they can think of, commencing with the letter A. Go on this way through the alphabet.

13. Tell small scholars to spell, for their next lesson, as many words as they can think of which contain but one syllable. Go on through the different grades of words by syllables.

14. Give them some familiar work for a subject, and tell them to write on their slates everything they can think of about it, and then make them spell the words in the order in which they have written them. This is an excellent introduction to the writing of compositions, though the teacher should not be so unwise as to call them such.

15. Dictate to a class ten difficult words to spell, and see how many of them will write them correctly on their slates.—*N. E. Journal of Education.*

A PROBLEM SOLVED.

In St. Louis there is no attempt to bring all classes within the same grade to *one standard* of advancement, so that, in January, all pupils within a given grade shall have arrived at just the same point in a study.

At all times there are new classes just beginning the work of a grade, or year's work, in some one of our schools.

The classes are not separated by intervals of one year in their work, but by irregular intervals varying from six weeks to twenty. It is considered desirable to have these intervals small, so that reclassification may be more easily managed.

Pupils who fall behind their class for any reason (such as absence, lack of physical strength or of mental ability) may be reclassified with the next lower class without falling back a year, and thus becoming discouraged.

Pupils who are unusually bright or mature, may be promoted to the class above, or form new classes with the slower pupils of the class above, who need to review their work.

Thus it happens that in a district school there is a continual process going on, the elements of which are as follows:

(1.) The older and more advanced pupils are leaving school for business or other causes. This depletes the classes of the most skillful and best paid teachers, who are usually placed in charge of the most advanced pupils.

Again, there is at all times of the year an influx, into the lower grades, of pupils who have just completed their sixth or seventh year, and are now anxious to commence their school career.

Thus the pupils in the primary rooms of our schools tend continually to be over-crowded. (2.) To correct this continued tendency which over-crowds the rooms of the least skilful and poorest paid teachers, and gives small quotas of pupils to the most skillful and best paid teachers, from time to time (usually once in ten weeks but oftener in some schools), each class is sifted, and its most promising pupils united with what remains of the next higher class: (i. e., with the not-promising portion of it—those who for absence, or dull intellect, or weak will, fail to keep up with the best.

(3.) To make room for this transfer a portion of the highest class is sent to the Branch High Schools.

(4.) The number changed from class to class is usually small. The disturbance in classes is very slight compared with the advantages gained by the teacher in being relieved of the necessity to drive the laggards, and drill and cram them to make them keep up with the average of the class.

The teacher was once obliged to spend most of her time upon the dull ones in the useless endeavor to force them to make up lost time, or to equal the strides of the more mature, more regular, or more brilliantly gifted pupils, and, of course, these latter pupils lost proportionately, and the net result of the process was to overwork the incompetent, and to hold back the competent ones.

The teacher, in the vain efforts to hold together the extremes of her class, separating more widely every day till the end of the year, became cross and petulant, and sank continually into the abyss of drill machine pedagogy.

Under our present system we can make room, when needed, in the lower grades, and fill up the classes of our skilful and high-priced teachers.—W. T. Harris, *City Superintendent of Schools; St. Louis.*

The attendance at the Morrisburg High School is 75, and the Public School 247. Eight teachers are employed in the two schools.