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# The Canada School Journal.

VOL. IV.

TORONTO, APRIL, 1879.

No. 28.

JOHN BURGESS CALKIN, M. A.,

PRINCIPAL OF THE PROVINCIAL NORMAL SCHOOL, TRURO, NOVA SCOTIA.

Our portrait this month is that of a gentleman whose life has been devoted to the cause of public education in his native province, and who has left the impress of his scholarship and professional skill on the mental habits and teaching aptitudes of many of her teachers. Both as an Educationist and as an Author, the learned Principal of the Normal School of Nova Scotia has well won the right of honorable recognition and mention, and we are sure that a brief sketch of his history will be acceptable not merely to his provincial friends and fellow-laborers, but to all throughout the Dominion to whom his valuable and widely-circulated educational treatises have made his name familiar.

Mr. Calkin's record is that of faithful and efficient service in all the posts which he has occupied in connection with the cause of education. As teacher of an "old time" Grammar School, as Head Master of the Provincial Model School, as Inspector of Schools for the County of King's, as Professor of Language in the Normal School, and as (for the last nine years) Principal of the latter institution, he has influentially contributed both to the practical spread of Education and to the creation of an improved and enlarged public sentiment in relation thereto.

Mr. Calkin was born in Cornwallis, N.S., in the year 1829. During early life, in addition to such opportunities of obtaining knowledge as were afforded by the district school, he enjoyed the advantages of several years' study under the direction of Rev. Mr. Somerville, widely known throughout the Lower Provinces as an exceedingly full and accurate scholar. Undoubtedly the impulse received from this ripe and enthusiastic educator to a large extent determined his future career. The year 1851-2 was spent in attendance at the Free Church College, Halifax, whence he returned for a short time to the institution conducted by Mr. Somerville, and where he had previously made good progress in both mathematical and classical studies. From 1852 to 1856 he was engaged in teaching in the schools of his native county, having charge during the years 1853-6 of one of the county "Grammar Schools." Anxious to fit himself for the most efficient discharge of his professional duties, he then spent a year at the newly-opened Normal School at Truro. After a brief return to teaching in the public schools, he was summoned, by the urgent solicitation of the

late lamented Dr. Forrester, to assume the Head Mastership of the Model School in connection with the Provincial Normal Institute. On the adoption of the Free School Act, he was induced by Superintendent Rand to undertake the duties of the Inspectorship of Schools for the County of King's, where for two years he rendered laborious service in laying the foundations of the new system. He returned to Truro as Professor of the English Department of the Normal School, and on Doctor Forrester's death, in 1869, he was appointed his successor in the Principalship, the position which he still holds.

In accordance with the prevailing usage, the Principal delivers to the student-teachers the regular lectures on School Management, the Philosophy of Method, and the general Proprieties of the Profession. Principal Calkin's prelections are inspired by a strong

conviction of the soundness of the scientific basis on which the theory of Normal Institutions is based. To quote from the very eloquent address delivered at the opening of the new Normal School Building in November last, he believes that "Teaching is a communicable art, and its methods are either derived from scientific principles, or they have been so verified by experience as to form unquestionable rules of action."

We need only refer to the equal success which characterized his discharge of the duties of his previous position, that of Professor of the Department of English. The experience gained while occupying this chair enabled him to enrich our educational literature with several works, all of value, and some of very wide circulation and repute. Among these we may mention the *General Geography of the World* and the *Introductory Geography* (both acknowledged



text books in Ontario and New Brunswick as well as Nova Scotia), the *History and Geography of Nova Scotia*, and a treatise on *Elementary Book-Keeping*. He has also edited a special edition of *Swinton's English Grammar*. In 1870 the University of Acadia College fittingly recognized Principal Calkin's attainments by bestowing upon him the degree of Master of Arts.

The new Normal School building is an ornament to Truro and an honor to the Province of Nova Scotia. It can accommodate two hundred students. Ample provision has been made for the Library, Museum and Apparatus. Convenient lavatories are situated on the basement floor, and the health of the students is further attended to by furnishing large rooms for physical exercise. The Government and people were glad to spend a large sum of money in erecting and fitting up the institution, knowing that it was to be conducted by a man so able and experienced as the subject of our sketch.

## Clearings.

### ELEMENTARY EDUCATION IN EUROPE.

The question of Elementary education attracts great attention at the present time in every country in Europe. Philosophers are busy working out the unsolved problems connected with human culture and development. Statesmen are considering the ways and means of increasing national strength and prosperity by making education universal, and teachers are discussing courses of study, and methods of imparting instruction. Within the last few years great progress has been made in establishing and improving systems of elementary schools, and the future, in this respect, is full of promise.

During my tour, I saw large numbers of city, village and country schools of the lower grades; and at the Paris Exposition the opportunities were all that could be desired for inquiring into systems of education, their administration, and the practical working of schools. An account, in detail, of what was learned must be postponed for the present; but some general conclusions may be stated.

First, let me mention a few particulars, in which, I think, the elementary schools of the nations of Europe, educationally the most advanced, are superior to ours.

1. *They are more carefully inspected.*—The local school officers seem to be generally selected with reference to their qualifications for the place, and the inspectors are specially prepared for their work. They have fewer schools to look after than our superintendents. Their tenure of office is for life, or good behaviour, and they are held to a strict accountability by superior officers.

2. *Their course of study is better.*—They do not have so much abstract grammar or arithmetic in their schools, or so much detailed geography; but, in place of these branches, they have drawing, vocal music, and the elements of the natural sciences. Many of them make special application of the natural sciences to agriculture, horticulture, and domestic economy. More teaching is done without the text-book.

3. *Their terms are longer.*—The schools are almost everywhere open for nine or ten months in the year.

4. *The teachers have made more special preparation for their work.*—They are, for the most part, either graduates of normal schools, or they have served an apprenticeship as pupil teachers, in a school under the direction of a master of acknowledged skill. As a class, they are more learned than American teachers. They have, also, whatever advantages arise from constant employment, and a permanent situation.

5. *More attention is paid to moral and religious instruction.*—The teachers of the elementary schools, as a class, seem to be professors of religion. Religion, as a branch of study, is found upon almost every school programme. Under this head lessons are given in the Scriptures, and in the doctrines of the church to which the pupils or their parents belong. Intermingled with this intellectual religious instruction, there is much done to develop the religious life. A devotional feeling prevails in many of the schools that is very rare in America.

Some of the particulars in which our elementary schools excel those I saw in the Old World are the following:

1. *We have better school-houses.*—This is true only in a general way of village and country school-houses. I saw school-houses in Berlin, Vienna, and other cities in Europe equal to the best we have in this country. Under the policy lately adopted by some States, of requiring all school-houses to be erected according to plans furnished by a skilful architect, employed by the Government, those recently built are admirable in all respects. But as a whole, there is no country in Europe whose school-houses will compare in size and general adaptation to their purpose with those in Pennsylvania.

2. *Our school furniture is superior.*—Several European nations had exhibits of school furniture at Philadelphia. It was acknowledged on all hands that none of them compared in excellence with the furniture shown by American manufacturers. A like superiority was accorded to our school desks and chair at Paris. In a majority of the country schools all over Europe, the pupils sit on long, clumsy benches, and write on long, clumsy desks, similar to those in the schools of Pennsylvania half a century ago. Black-boards are in the schools; but they are generally small, and seem to be used mainly by the teachers. I did not see a class of pupils working at a black-board in a single school I visited.

3. *Our text-books are better.*—I speak of text-books for elementary schools, and I risk nothing in saying that they are better than those of any country in Europe in matter, in arrangement, in method, in attractiveness—in all that goes to make up a good text-book for children of from six to twelve years of age. I do not believe that a single teacher, competent to compare the merits of text-books, who examined the several exhibits of this kind at Paris, could have come to any other conclusion.

4. *Our schools are free.*—There are no free schools in Europe, except in some parts of Switzerland. All children who attend school, not on the poor list, must pay a fee. A child whose parents are unable to pay the fee can be exempted from it; but this in Europe, as well as in America, is to put a mark upon him.

5. *Our teachers have more tact.*—I have admitted that European teachers are, as a body, more learned than ours. They have made more special preparation for their work. But if my observations are at all reliable, they do not evince that natural aptness as instructors of the young, which is characteristic of American teachers. They seem to be too heavy, too slow, wanting in versatility of talent, in mental flexibility and ready sympathy. They appear to teach under some restraint, and to be unable to forget themselves and the outside world in an effort to make not only scholars, but men and women, of the children placed in their charge.

6. *More is done in our schools to form character.*—American schools are defective in the effort they make to form the character of the young, but with all their defects, they form a happy contrast with European schools in this respect. The highest aim of the average teacher of a country school in Europe seems to be to impart to his scholars such knowledge as will be useful to them in the sphere of life in which they were born. This instruction contains no element prompting them to make an effort to rise to a higher one—none teaching the great doctrine of human equality, or evoking a self-reliant, independent executive power. In America the school is a social force, always moving upward; in Europe it is a social force moving on a horizontal plane. Here, the effort is made to prompt inquiry in all directions, to promote free discussion, to encourage criticism, to accept nothing that is bad because it is high, and to despise nothing that is good because it is low, and to implant in the breast of every child an abiding faith that God has made him the peer of any man, and that it is lawful for him to aspire to the highest place on earth; there, the children of the poor, who alone, as a rule, attend the public schools in the rural districts, are taught to be content with their condition, to follow quietly the avocations of their fathers, to accept as right all that is done by their rulers, to repress all longings for something higher and nobler, and to live and die as generations of their ancestors have lived and died for hundreds of years.

It was a surprise to me to see how little the public school systems of the Old World have uplifted the aspirations or ameliorated the condition of the common people. Doubtless a large majority of the children in the most enlightened countries are taught to read and write; but the houses of the poor, their food, their dress, their mode of life, the amount and character of their toil, are today what they have been for many generations. If the efficiency of a public school system is to be tested by its ability to reach its hand down to the lower strata of society and elevate and ennoble, my observations must be greatly at fault if many of the European systems most praised are not comparative failures. Of what avail, for example, is a little reading and writing to the millions of peasant women and girls who are compelled to do most of the work of the fields, as well as that of the house, to carry heavy loads, to drag heavy carts—to make themselves in good part beasts of burden? A public school system may be an instrument in the hands of a despotic government to make obedient subjects, good soldiers, efficient machines; but when so used an American cannot be expected to look upon it with much favor, although he may admire it as an organization. The truth is that the social and political systems of the Old World and the New are so different, their ideas and aspirations are so far apart, that the only common standard that can be applied to the schools of both is one that applies only to their outside—their mere mechanism; all that is vital concerning them must stand or fall with the popular institutions and customs among which they were established, and under whose influence they have grown up.—Supt. J. P. Wickersham.

—Daniel Webster is credited with having said: "If I had as many sons as old Priam, I would have them all learn a trade, so they would have something to fall back on in case they failed in speculation."

PREPARED FOR A WHIPPING.—*Zion's Herald* tells a story of old-time discipline at Wilbraham Seminary when Rev. Dr. Fisk was the presiding officer: "There was one minister's son, now in the New England Conference (and a very faithful and useful pastor he has been), a member of a large ministerial family, who in his academic days was as full of mischief as the proverbial minister's son is supposed to be. He taxed the well-known elastic patience of Dr. Fisk to the last degree. Finally, the doctor said to him, after a capital act of misconduct: 'You must prepare yourself for a severe whipping.' When the appointed time came the doctor was on hand, very much more affected, apparently, than the irrepresible mischief-maker. After a solemn discourse in that most melting tone of voice that no one can forget who ever heard it, the doctor drew his rattan and laid it with considerable unctiousness upon the boy's back. Nothing but dust followed the blow. The subject of the discipline was entirely at his ease, and evidently quite unconscious of the stroke. 'Take off your coat, sir,' was the next command, for the doctor was a little roused. Again whistled the rattan around the boy's shoulders, but with no more effect. 'Take off your vest, sir!' shouted the doctor. Off went the vest, but there was another under it. 'Off with the other!' and then, to the astonishment of the administrator of justice, he exposed a dried codfish, defending the back of the culprit like a shield, while below there was evidently stretching over other exposed portions of the body a stout leather apron. 'What does this mean?' said the doctor. 'Why,' said the great rogue, in a particularly humble and persuasive tone, 'you told me, doctor, to prepare myself for punishment, and I have done the best I could!' It was out of the question to pursue that act of discipline any further at that time. And it is doubtful whether it was ever resumed again."

—A student at the Theological Seminary at Andover, who had an excellent opinion of his own talent, on one occasion asked the professor who taught elocution: "What do I specially need to learn in this department?" "You ought just to learn to read," said the professor. "Oh, I can read now," replied the student. The professor handed the young man a Testament, and pointing to Luke xxiv. 25, he asked him to read that. The young man read: "Then He said unto them, O fools and slow of heart to believe all that the prophets have spoken." "Ah," said the professor, "they were fools for believing the prophets, were they?" Of course that was not right, and so the young man tried again. "O fools, and slow of heart to believe all that the prophets have spoken." "The prophets, then, were sometimes liars?" asked the professor. "No. O fools, and slow of heart to believe all that the prophets have spoken." "According to this reading," the professor suggested, "the prophets were notorious liars." This was not a satisfactory conclusion, and so another trial was made. "O fools, and slow of heart to believe all that the prophets have spoken." "I see, now," said the professor, "the prophets wrote the truth, but they spoke falsehood." This last criticism discouraged the student and he acknowledged that he did not know how to read.—*Groser, in "Methods of Instruction."*

—I have great faith in good books. If the first aim of a public school is to make men better workers, the second is to make them better thinkers; and for this purpose the young mind must be brought into correspondence with the thoughts of the great men who lived in former days, and of those who are still living. Very little of the arithmetic which children learn at school can be made available in after-life. The puzzles of the "Mental," which they solve with so much patience and execute with so much dexterity, are fortunately strangers to the desk of the commercial clerk. Their feats of analysis and parsing are never to be repeated among the contests of actual life. Nine-tenths of what they have learned as geography will pass away as the morning cloud and the early dew. But a taste for good reading, once acquired, will last for life; will be available every day and almost every hour, and will grow by what it feeds on; will so occupy the time of the young as to rob temptation of half its power, by stealing more than half its opportunities; will give a keener zest to every pure enjoyment; will be a refuge and a solace in adversity; will spread from man to man, and from family to family, and finally will not perish with the individual, but descend from the fathers unto the children to the third and fourth generations.—*M. A. NEWELL.*

—While so much is being demanded of teachers, why should they not demand in return? something more than twenty-five or even seventy-five dollars per month? The sympathy and encouragement of parents is every good teacher's right. But until one has taught school he will have no idea how many incompetent (to put it mildly) parents there are. I think parents should be informed when their children are wilfully disobedient at school. All children have some pride and dislike to take home a note telling of their misconduct; and I do not remember of a single instance where I have sent home a note, that I have failed to see some good result. Yet it makes the correction of a child's habits seem a thankless task, when on informing the father of the child's misconduct, he, highly indignant, in reply sends a very impolite and ungentlemanly note, and imparts the rather startling news, that he could soon obtain sufficient names to a petition for your removal. I don't think that the petition was circulated, but I do know that the child improved, and in a few weeks the father personally asked that I should report all misconduct, as he did not want his children to be troublesome in school. And what a help and encouragement it is to be heartily thanked for informing a parent of his child's delinquency! Yet we must work on, sowing many seeds, and hoping enough may bear fruit that our labor be not in vain; and trusting that those who appreciate us now will have still more reason to do so in the future, and that those who do not will sometime receive their sight.—*J. M. P., in National Journal of Education.*

WHAT AND WHY.—It is the disposition of intelligent thinking to take nothing for granted. The realization that human life, in all its departments, should ever be a living toward what is more truly good and largely useful, gives to mind a quality that questions the wisdom of the established past, and searches the present and the future for the possibilities of better things. That a custom exists is not a proof that it is wise and right. That a bygone generation believed this or did that, is not a sufficient reason why a succeeding age should think or act in the same way to the same end. In these latter days, particularly, life crowns, and there is more than ever before the necessity to "prove all things, and hold fast only to what is good." This is peculiarly the duty of the teachers. They are the keepers of the gates that open into active life. It is largely under their training that children are fitted or unfitted to live their lives in happiness or usefulness. If teachers would meet the demand their profession puts upon them, it is imperative that they consider the child's future needs in that busy life to which the school is the portal, and shape their instruction to the end of preparing him for the duties and enjoyments that await him. In addition to knowing what they teach, it is incumbent upon them to know why they teach it.—*Miss Rose C. Stewart, Oshkosh Normal School, Wis.*

—There is but a small per centage that uphold educational journals. And the excuses will show the teacher's estimate of his own profession. (a) Takes other papers or magazines. (b) Does not want to read about education. (c) They are all about one thing i. e., education, dry reading, etc. (d) Can't afford it—that is, one to four cents a week is too high a price to pay for fresh and valuable instruction. (e) Have taught one or more years without one. (f) Is going to teach but a short time. (g) Borrows one. (h) Have advertisements in them—that is, sorry to have the publishers make any money. (i) Have no time to read them.—*N. Y. School Journal.*

—The surgeon to the British National Training School for Music advises that a pupil should be taught to sing as soon as he can read. He adds, however, that the lessons should last only for fifteen or twenty minutes; that the voice should be practised only on *solfeggi* or on open vowel sounds; and that the range should not exceed an octave, or, better still, should at first be limited to exercises on the notes E to C. Children, he says, should not be allowed to sing songs except those written within the same moderate range—a hint that might be taken with advantage by the composers of rhymes.

—"Mother," said a little square-built urchin about five years old, "why don't the teacher make me monitor, sometimes? I can lick every boy in my class but one."

# The Canada School Journal

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## TO ADVERTISERS.

The SCHOOL JOURNAL is now the best medium in the Dominion of Canada for reaching Teachers and Trustees. As a proof of the rapid increase of its circulation ~~137~~ 1100 NEW SUBSCRIBERS were received from Nova Scotia in January, and 550 FROM NEW BRUNSWICK in February.

TORONTO, APRIL, 1879.

It is due to Dr Hodgins to state that after the March number of the JOURNAL had been printed we received a note from him correcting a statement contained in his letter respecting Examination papers. The Intermediate Examination is an exception to the general rule established, as for that Examination no papers have been sent but those ordered for the candidates.

## THE NEW SCHOOL ACT.

The School Bill, which we took occasion to criticise last month while it was under the consideration of the Ontario Legislative Assembly, has been extensively modified, and made on the whole very much less objectionable than it was when first introduced. In our former comments we noticed the omission of any provision for the extension of the ballot to school elections. We still hold to the opinion that in cities and towns the use of the ballot in trustee elections is desirable, but we must admit that there seems to be very little chance of seeing it introduced for sometime to come. The Minister of Education was personally opposed to it, but left the question an open one, and the Assembly decided by an overwhelming majority to leave the mode of voting unchanged. Some improvement has been made in the School franchise, by admitting to its exercise all who are in a position to exercise either the Parliamentary or Municipal franchise, while none who now enjoy it are excluded. In cities, where the property franchise is \$400 on many small freeholders, and not a few women holding property in their own right would have been disfranchised had the various franchises been completely assimilated, as was proposed by several members, the House, wisely as we think, declined to accede to the proposition; so that, but for a little additional trouble growing out of new complications, the result of its decision is on this point quite satisfactory.

We are glad to see that, before the Bill passed, the clause giving Municipal Councils a vote on the capital expenditure of School Boards was somewhat modified, although not to so great an extent as we believe desirable. We think it unfortunate that the clause was inserted at all. According to the amended clause, the vote power is still vested in a two-thirds majority of the Councils, but they cannot exercise it absolutely. At the request of the School Board, the question has now to be submitted by the Council to a vote of the ratepayers, and in some cases the trouble and expense of such submission will be so

great as to make Councils unwilling to resort to it as a remedy for what they conceive to be unduly large expenditures. In rural school sections the ratepayers are hereafter to be consulted with respect to all capital expenditures as well as school sites. While the provisions of the Bill as modified are less objectionable than at first, we cannot see why the law should have been disturbed in this respect at all. We do not believe that a single instance of extravagant expenditure—keeping in view the requirements of the law in the matter of school accommodation—can be cited, and when a law is working well it should never be tinkered.

We notice that the very objectionable provision authorizing the issue of books from the Depository in lieu of the refund of 100 per cent., the booksellers supplying School Boards, has also been changed for the better by the introduction of a clause making it optional with the trustees to take the books or not as they please. It would have been much better to drop this Depository sub-section out of the Bill altogether; in its present form it only encumbers the statute-book and adds to the proverbial intricacy of the school law of the Province.

The invidious disability sought to be placed on Model and High School masters by the first draft of the Bill has been prevented by dropping out altogether the section depriving them of the right to act as County Board Examiners. This is as it should be, for there never was any sufficient justification for the proposed change in the law. It is very desirable to have for county examiners men of good educational standing, and possessed of some skill as experts, and the exclusion of the two clauses specified would very greatly limit the amount of available material from which County Councils have not the privilege of soliciting.

Only one other change in the Bill calls for notice here. The School Act has for many years contained a provision declaring the children of non-resident ratepayers to be for school purposes residents of any section or division in which their parents or guardians may happen to pay a school tax. This has in course of time given rise to a great practical grievance. Persons living in school sections adjoining villages have been in the habit of obtaining property within the latter at nominal cost or rental, and then sending their children to the village schools while their school tax goes in bulk to schools which they do not attend. In some cases the village ratepayers have been compelled to increase their school accommodation very much to meet this additional and unprofitable strain upon it, and complaints loud and deep have been the result. The remedy applied is exceedingly simple, consisting merely in the repeal of sub-section 4 of section 100 of the Public School Act. Henceforth, therefore, only the children of *bona fide* residents can enjoy residents' privileges with respect to Public Schools, the provision with respect to distance being the only privilege enjoyed by non-residents.

## SCHOOL LEGISLATION.

The *Indiana School Journal* for March, speaking of the School Bill before the Legislature of that State, says joyously,

"There are still ten days left in which the Legislature can work. No harm has been done yet to the schools, and matters look hopeful. \* \* \* Owing to the shortness of the time, it is hoped that if anything adverse to the interests of the schools passes one House it can be defeated in the other."

The *New York School Journal* of March 8th heads an article on School Legislation, "MEDDLING WITH OUR SCHOOLS." The true friends of education in Ontario are being forced to the conclusion that the above heading fairly expresses the unstatesmanlike method of dealing with the School Law exhibited in our own Legislature. It is always a matter of great anxiety to Inspectors, Teachers, and Trustees to learn that a new School Bill is to be introduced into the House. Their anxiety does not arise from opposition to change. They are willing, nay desirous, to have needful reforms made. They are proud of their school system, and they know that it can only maintain its honorable position by keeping up with the progress made in other lands. Oh, no! It is not reforms that they fear, it is "meddling" or tampering that makes them tremble.

It is to the credit of both political parties that they approach a School Bill without partizan spirit. We hope it may be so always; but there is great danger even in this, praiseworthy as it may appear. The Minister of Education, knowing that educational questions are to be discussed in a non-party spirit, comes to the House with immature plans, and almost without policy. He throws down annually an educational football, and every member feels himself at liberty to kick it in whatever direction he chooses. Then begins the great promiscuous game. Of course every member can take a part in discussing educational questions! No great amount of ability or knowledge is needed in dealing with such a subject! Technical information may be requisite in speaking on the black knot, or snake fences, or street railroads, or gas companies, but not so with education! Oh, certainly not! The highest temporal interests of the human race are bound up in it, and it deals with the mightiest problems which man's intelligence can grasp; but what of that? Every member has at least seen a school house, and at any rate had to pay extra taxes, and therefore he must be competent to kick the educational football! If he has paid one school bill, he surely may be allowed to discuss another.

Seriously, however, the situation in Ontario is such as to cause the people to be alarmed. They love their school system, and will not long permit any man or body of men to try petty experiments with their rights. Unfortunately, the gleeful song of the Indiana journal above quoted has no force here. Hopeful when the Legislature has only ten days to live! Oh! for the Indiana safeguards against hasty and ill-judged law making. Two days amply suffice in Ontario to remove the keystone of our noble system.

One of two courses should be adopted. The Minister of Education should be the guardian of the School Law, and permit no one to meddle with it except when he introduced measures himself; or School Bills should be submitted to a special committee of the Legislature at the beginning of each session. It would be better in most cases to let the Bill stand as a notice of motion until a future session.

It would not then be necessary to substitute a second Bill in any session to conceal the mutilations of the first.

### THE "TWENTY-NINTH" CLAUSE.

Of course there can be no danger to the school system in that remarkable 29th clause of the new School Act. Certainly not! Every man in the country is thoroughly in sympathy with the Public and High Schools! The following classes especially are burning with zeal in their favor:

1. Those who look upon Public Schools as "pauper schools" very good for the "vulgar herd."
2. Those who believe that it is "dangerous to the State, and productive of communistic views, to give the children of the poor too much education."
3. Those who say, "I done fustrate wi' no eddication, wy shouldn't the childer?"
4. Those who say, "Joggerfy don't help no boy to drive a yoke o' oxen."
5. Those who are rich, niggardly, and have no children to go to school.

These are the men who will put their shoulders to the wheel of the stately car of education, and under the able guidance of a Minister of ability, intelligence, and above all of breadth of view and decision of character, (?) will move it onward to ——— we cannot solve the puzzling problem!

The worst feature of the case is that the foes of the schools are alert and vigorous. Their friends are satisfied to see them progress, and willing to pay their taxes, but they prefer to have the real work done by a few.

The Minister of Education ought to know that there are many men in the country who, as Herbert Spencer says, "take much more interest in the development of their farm animals than in the education of their children."

There is one consolation for the friends of education, however. Ontario was privileged to have for over thirty years a Ryerson at the helm of her educational ship. During that time he pursued such an enlightened course that the country is now dotted over with good school houses. It is scarcely likely that a clause will be introduced providing that they be demolished. There is hope for the country yet, therefore, and the "twenty-ninth clause" can not be retro-active. Had it passed in 1850, log shanties would still have graced a thousand "corner lots" instead of the fine brick buildings that have long since supplanted them.

Dr. Ryerson has more noble monuments erected to perpetuate his memory and his grand work, even while he lives, than any other of Ontario's sons. He may rest assured that he will long live in the loving hearts of a grateful people. Others may check for a time the progress of his work; they can never undo it.

### PROFESSIONAL COURSE IN NORMAL SCHOOLS.

We have on several occasions called attention to the fact that while the system of training teachers in Ontario is one of the most



through in the world, so far as young teachers are concerned, it is very deficient in the higher departments of professional work. We have tried to show that, unless first class teachers are more thoroughly instructed in the principles of psychology, they cannot in their turn intelligently train the teachers in the County Model Schools, and that those institutions cannot long be expected to perform their work in a satisfactory manner. The streams cannot be expected to rise above their fountains. First-class students really have less professional work, theoretical and practical, than second-class students in our Normal Schools. This ought not to be the case. They are better able to teach the pupils in the Model Schools, and their teaching would do less harm, than that of second-class students. It would also do themselves more good. When a man has had considerable experience himself, as is necessary in the case of first-class students, he is able intelligently to comprehend the criticisms made regarding his teaching by the teachers in the Model and Normal Schools.

We hold that the professional training should be distinct altogether from the non-professional for first-class teachers, as it now is in the case of second-class teachers, and that it should be extensive and thorough. When we remember the nature of the duties of Public School Inspectors and Masters of County Model Schools it will be acknowledged by all that they should be thoroughly conversant with the principles that underlie the science and art of education.

We gave in the January number of THE JOURNAL the professional course of the New Brunswick Normal School. We propose to give from time to time the outline of the work done in this department in Normal Schools in various countries, to show clearly where we stand relatively. It will not do to stand boasting about our admirable mechanical apparatus, while the whole world is outstripping us in the production of well-trained men and women. Machines are good so long as they are our servants and not our masters. We need highly educated intelligence to work our splendid machines.

Our School Law has been patched sufficiently on its purely legal side. It requires some attention on its educational side.

The following is a brief statement of the professional work done in the Normal Schools of Pennsylvania, from the pen of Dr. Edward Brooks:—

"The professional course is regarded as the peculiar and essential feature of the Normal School. It is the central idea of the institution, that around which everything else must revolve and from which it derives form and inspiration. To this course everything else is preparatory and subordinate. Learning to *know* elsewhere with the incidental observation of distinctive methods, the pupil enters this course to learn to *teach*. Knowledge acquired elsewhere is brought here and examined, not in the light of the student, but in the light of the teacher. The question is no longer, How shall I acquire? but, How shall I impart? Pupils enter this course to learn the laws and methods of culture and instruction, the relation of the different branches of study to the mind, and the method by which knowledge should be imparted and the mental faculties developed. It is the keystone of the arch which gives power and strength and completeness to the entire work.

The Professional course of the Normal School includes two distinct departments: the *Theory of Teaching* and the *Practice of Teaching*, or, as we may state in more modern phrase, the *Science of Teaching* and the *Art of Teaching*. The Science of Teaching, as determined by a correct view of education, embraces three things:

1. A knowledge of the powers of man and how to train them.
2. A knowledge of the branches of study and how to teach them.

3. A knowledge of the methods of organizing and managing a school.

A complete view of the Normal School course in the Science of Teaching is presented in the following outline:

Science of Teaching.	{	1. Methods of Culture.	<ol style="list-style-type: none"> <li>1. Nature of Man.</li> <li>2. Nature of Culture.</li> <li>3. Cultivating each Faculty.</li> </ol>
		2. Methods of Instruction.	<ol style="list-style-type: none"> <li>1. Nature of Knowledge.</li> <li>2. Nature of Instruction.</li> <li>3. Teaching each Branch.</li> </ol>
	3. School Economy.	<ol style="list-style-type: none"> <li>1. School Preparation.</li> <li>2. School Organization.</li> <li>3. School Employment.</li> <li>4. School Government.</li> <li>5. School Authorities.</li> </ol>	

This schedule presents an outline of a course of study in the Science of Teaching which occupies at least a year and a half in our Normal Schools. In my own school the subject of School Economy is taken up the latter half of the junior year, and the other two branches are begun at the beginning of the senior year, one running twenty six weeks, and the other occupying the entire year; besides this there is instruction in the first half of the junior year, continuing sometimes two and three years. The same is substantially true of all the schools in the State."

#### A SPECIMEN.

The following is an exact copy of the rules and regulations for the guidance of teachers, recently adopted by one of the school boards of a township of a neighboring state:

All Teachers are required to be in their respective school rooms and commence school by nine o'clock promptly and put in full time. No profane language will be allowed in or about the School room. Whispering in school is forbidden small children allowed some privileges.

The Teachers are required not to allow the scholars to do any thing that will expose or endanger their health.

Scholars are not allowed to scuffle or pull at Desks or commit any ruff or rude plays in the school room.

Teachers are required not to allow any of the school property to be disfigured or abused in any manner inside or out.

Teachers are not allowed to punish pupils with corporal punishment.

Resolved that any scholar who persists in disobeying the above rules shall when mild means fail be complained of to their parents by a written notice from the Teacher and for the third offence be sent home from school and for the fourth offence be expelled till they acknowledge his fault and promises to obey the rules.

Pased by the Board of Directors Feb. 3, 1877.

\_\_\_\_\_, Secretary.

#### Contributions and Correspondence.

##### THE POTENTIAL MOOD.

BY C. P. MASON, B.A., F.C.P., FELLOW OF UNIV. COLL. LONDON.

A good many worthy people have been much exercised of late years by the harsh treatment to which an old friend of theirs has been subjected. Their venerable acquaintance, the Potential Mood, has been kicked out of certain grammatical circles with various contumelious expressions. Some have even gone so far as to brand him as an impostor. Why this harsh treatment? they ask. Has he not as good a right to his position as his quondam neighbours? He may not be quite so big and strong as the Indicative, but is he not at least a match for the Subjunctive? And did not Lindley Murray countenance him?

Yes, he did; and the absurd superstition with which that writer's name has been regarded has been the main cause of this long respite this same Potential Mood has enjoyed. Indeed, so obstinate are grammatical prejudices, that I still despair of convincing those

who have been long habituated to the use of grammars which recognize that mood, that there really is no such thing. Some, however, are doubtless open to conviction, and I think it will not be difficult to get them to see how the matter stands. I shall not attempt to do more at present than jot down a few hasty remarks. I have some intention of dealing ere long with the whole subject of Moods in a more complete fashion.

The whole thing, however, really lies in a nutshell, if it be looked at simply and without prejudice. The function of a verb is predication; that is to say, we form in our minds the notion of some object of thought, and then, by means of a verb, connect with that notion the notion of some action or attribute or state, which is signified by the verb. The *attitude of our mind* with relation to this connection is what gives rise to Mood. So far, we may adopt Priscian's definition: "Modi sunt diversae inclinationes animi, varios ejus affectus significantes." Now, surely it ought not to require any long demonstration to show that you cannot possibly have a verb in any of its forms attached to a subject, unless the predicative notion expressed by the verb is directly connected with that denoted by the subject. Take "John" and "write." You are not using any form of the verb "write" unless you predicate of "John" the *act of writing* (whether positively or negatively, assertively or hypothetically, makes no grammatical difference), either as something pertaining to the objective world outside your thought about it, or as a matter of conception, or (as a modification of the latter) as a matter of volition. But if you say, "John can write," you do not predicate "writing" of "John,"—that is my point—you predicate of him the *ability to do something*, which is a totally different affair. *Writing is writing, not being able to write.* According as we take the older or the later sense of the term, "John can write" is equivalent either to "John knows how to write," or "John is able to write," in which sentences it is obvious that our predication is made by means of an Indicative Mood, and properly so, because it relates to a matter of objective fact. Similarly, if I say, "Boys, you may play now," I do not predicate "playing" of "boys." I make a direct statement by means of a verb in the Indicative Mood ("may"), that the "boys" "are permitted to do something." The verb "may" (like "can" in the last sentence) is a *principal* verb, and has its full *notional* sense. All this is as clear as daylight, but there are grammar writers by the score who are so "high gravel blind" that they cannot see it. It was long ago observed that the name *Potential* was altogether inexact and insufficient, and that if the "can" or the "may" constituted a mood, each little verb must have a mood to itself, just as, if a preposition and a noun make a *case*, there must of necessity be as many cases as there are prepositions. Accordingly, worthy Mr. James White, a century or more ago, actually proposed the acceptance of "The Potential Mood," "The Determinative Mood," "The Obligative Mood," "The Compulsive Mood," and "The Elective Mood."

The fact is, all this belongs as much to the dark ages of Grammar as the Phlogiston theory does to those of Chemistry. The whole thing was invented by men who were in absolute ignorance of the principles of comparative grammar, and of the origin and true functions of moods. There were two points especially on which they went wrong. They were possessed by the idea that you have got hold of a subjunctive mood of some sort whenever you have a *condition* expressed by an "if" or a "though," in spite of the commonest idioms in Latin, English, &c., in which the Indicative is used. I will not dwell at length upon this point now, because I have dealt with the matter in my "English Grammar," and in some papers already published in this journal. The Indicative is the proper form after an "if," for conditional proportions

that relate to the world of objective reality, and not that of mere conception. This mistake threw all their notions about Indicative and Subjunctive into confusion.

Then again, they failed to see that the verbs "may," "shall," and "will," have two totally distinct uses. In the first place, they may be used (like "can" and "must") as *notional* or *principal* verbs, making a distinct predication of their own, as "you may play" (where "permission" to do something is predicated of "you"); "I will be obeyed" (where a certain "determination" is predicated of "me"); "He shall not do that" (where a certain "restraint" over his actions is predicated of "him"). As *notional* verbs, they may also enter into some subjunctive constructions. In the second place, they may be used as mere auxiliaries—signs of tense or mood; but in this case *their notional value disappears*. As mood-signs they help to form compound sentences (or verbal phrases), which have replaced the older simple forms of the subjunctive. Thus we say, "Take care that all *may be* ready" for "Take care that all be ready"; "It would be well that it should be done quickly" for "It were well that it were done quickly," and so on. But the important thing to observe is, that "may be," "would be," &c., are subjunctive expressions, not because the verbs *may, would, &c.*, are used, but *because those verbs are used in the subjunctive mood*, and so give their subjunctive force to the compound expressions after they have themselves been stripped of their notional significance, just as the notion of *futurity*, which is involved in *obligation* or *volition*, remains behind in "I shall go," and "He will come," when "shall" and "will" have ceased to imply obligation or volition, and have become mere tense-marks. But the compound forms referred to are in nowise a new mood, different from the subjunctive; they are only a roundabout way of expressing the subjunctive itself.

Now, what a good many writers give us as the Potential Mood is a clumsy jumble of the *notional* and the *auxiliary* uses of these little verbs, "may," "shall," &c., and they entirely fail to discriminate between the Indicative and the subjunctive use of the verbs. In "You may come in"; "I could not come" (i.e., I was not able to come) when you called me"; "He would not come (i.e., he did not choose to come) when I called him," &c., we get Indicative Moods. In "I could not do it if I tried"; "He would be vexed if he heard of this"; "He might have succeeded if he had worked harder," &c., we have Subjunctive Moods.\* To describe all these as examples of one and the same mood is sheer stupidity.

The muddle seems to have come about in this way. The Latin grammarians, from whom we have borrowed our grammatical terms, did not talk about a Potential Mood. They called forms of the class to which *amet, sit, esset, &c.*, belong, subjunctive; a bad term, because a verb in the subjunctive is not always *subjoined* to another, and a verb in the Indicative may be *subjoined* as well as a verb in the subjunctive. Some one noticed this, and seeing that the predication involved in the use of the subjunctive forms had not that direct and positive character that marks the Indicative, he thought him of calling these forms "Potential," restricting the term "Subjunctive" to a particular use of these Potential forms, that, namely, in which they were *subjoined* to some other verb.

\* I entirely differ from those who maintain that the loss of the forms by which the Subjunctive was once distinguished from Indicative, has abolished all difference between the moods. When a certain combination of letters is used for two perfectly distinct purposes, I deny that we have (for logical purposes) the *same* word. No one dreams of disputing the distinction between an abstract noun in *ing* and an imperfect participle because they end like; or of saying that the same *person* of the verb is used in "we were" and "you were"; or of asserting that we have the same word (grammatically) in "a fast train" and "he runs fast." Pray, let us have a little consistency. He must be a very dull person who does not see that in "I could not do this when I tried" and "I could not do this if I tried," the verbs in the first make a predication respecting objective fact, those in the second respecting subjective conception only. As they do this, I maintain that they belong to different moods. In saying this, however, I do not mean to deny that the Indicative mood has in many instances supplanted the Subjunctive.



(See Harris's "Hermes," ch. viii.) Now, in English, forms like *sit, cset, habuisset, &c.*, are often represented by compound forms. Some wiseacre, finding that subjunctive forms (or modes of expression) are of two kinds in English, simple and compound, and that grammarians had two terms in use, Potential and Subjunctive, hit upon the bright idea of calling the simple form Subjunctive, and the compound form Potential, and then proceeded to extend the latter term to all combinations in which the verbs "may," "shall," "can," &c., appeared, even though they were really Indicative, being under the hallucination that the compound forms, which were Subjunctive (or Potential) in their force, were so simply by virtue of the use of the auxiliary.

Why should English Grammar be defaced by this senseless abortion? As I have remarked elsewhere, "Is it not marvellous that teachers, who in their Latin classes never dream of telling their pupils that *possum scribere* is the potential mood of *scribo*; and when they give a German lesson, never insist that *ich kann schreiben* is a potential mood of *schreiben*; or in Greek, that *γχαθιη διαμααι* is a potential mood of *γχαθιη*; or in French, that *je puis écrire* is a potential mood of *écrire*,—still hanker after that blessed potential mood in English?" It cannot survive much longer, however. You will find no Potential Mood recognized by scholars like Koch, or Matzner, or Skeat, or Morris, or Latham, or Adams. It belongs to the veriest old-fogeydom of English Grammar, and will disappear from grammatical teaching as soon as people think clearly and consecutively on these subjects, and realize the fact that English is not something apart by itself, but belongs to a great group of languages, which, amid their manifold varieties, have in common the same fundamental principles and laws of speech.

#### APPLICATION OF TIME TO SIMILES IN ELOCUTION.

BY RICHARD LEWIS.

It is not necessary for me to define the simile; but if any students wish brief and correct views on this and other common figures of speech, I refer them to Bain's English Composition and Rhetoric. The simile and the metaphor are the most common and important rhetorical figures, and as they pervade every higher form of literature, and especially poetry and oratory, which lie so much in the province of elocution, it is important to have a clear and fixed principle for our guidance in their delivery. An attempt has been made to this end, by teachers who have been more anxious to be original than correct, by giving a rule based on the *value* of the figure; if it *exalts* the literal passage, it must be read or spoken *slower* than that passage; but if it *depreciates* the passage, it must be read or spoken *faster*. A few illustrations will show that this rule is fallacious, and if applied would utterly mar the force of the figure.

In the following passages the similes are intended to strengthen the literal passage—they exalt it, but should, by their very nature, be read with greater energy and in quicker time:

"Is not my word like as a fire, and like a hammer that breaketh the rock in pieces?"—*Jer. xxiii. 29.*

"Oh, that I had wings like a dove, for then would I fly away, and be at rest."—*Ps. lv. 6.*

"And all went merry as a marriage bell."—*Byron.*

"His Ironsides charged in turn like a torrent, driving all before them."—*Thorne.*

In these examples the similes exalt the literal, and to read them slower would, in some instances, have rather a ludicrous effect.

In the next examples, although the simile is intended to strength-

en the depreciative effect, quick time would leave a contrary impression:

"O precious hours! O golden prime,  
And affluence of love and time!  
Even as a miser counts his gold,  
Those hours the ancient time-piece told."

*Longfellow.*

The miser counts his gold slowly—hangs over each piece to make sure it is all right. The simile illustrates the slow beating of the clock.

"In that mansion used to be  
Free-hearted hospitality;  
His great fires up the chimney roared,  
The stranger feasted at his board."

All this is suggestive of joy and life, and should be read faster than the succeeding verses, which, with the simile, are suggestive of solemnity and slowness:

"But—like the skeleton at the feast—  
That warning time-piece never ceased," &c., &c.

"And the daughter of Zion is left—as a cottage in the vineyard, as a lodge in a garden of cucumbers, as a besieged city."—*Isaiah i. 8.*

Every simile here suggests inaction, and would be marred by fast reading.

It would be quite easy to multiply to any extent examples to shew that the rule which applies the principle of time in the delivery of a simile according to its *value* would utterly destroy its force. I submit the principle which I have always used, and which pupils of any age can easily appreciate and apply, viz.: *read the simile according to its nature*. If from its nature it is intended to illustrate force and quick action, then let it be delivered with more force and quickness of time than the literal; but if in its nature it is a symbol of slowness or inaction, let it be read slower.

I have had the privilege of hearing Miss Cushman read the following passage, and I remember what tender pathos she gave to the similes, as she read them in the slowest time; and I believe that Miss Neilson and Mrs. Siddons read the same passage in the way suggested:

"She never told her love,  
But let concealment—like a worn i' the bud,  
Feed on her damask cheek."

The worm creeps *slowly* through the bud, and hence the *nature* of the simile suggests slowness in its delivery.

"She pined in thought;  
And with a green and yellow melancholy  
She sat, like *Patience* on a monument,  
Smiling at grief."—*Shakspeare.*

The last simile is still more suggestive of slowness, because *Patience* is passive and inactive, and this is a *marble* patience without life or action.

I have seen the next passage given as an example for slow reading because it elevates the literal; but flames and fire are quick and energetic in their action; and, as in the verse from *Jeremiah*, where God's word is said to destroy all that opposes it like the swift flames, the simile gives greater force to the literal by swifter delivery than the literal:

"As when a flame the winding valley fills,  
And *crackles* o'er crackling shrubs between the hills,  
Then o'er the stubble, up the mountain *flies*,  
*Fires* the high woods and blazes to the skies,  
This way and that, the *spreading* torrent roars,  
So sweeps the hero through the washed shores."

—*Pope's Homer.*

I suppose the simile in the following example depreciates, but

the grandeur of the effect would be destroyed by reading "like Lucifer" fast.

"And when he falls, he falls—like Lucifer,  
Never to hope again."

I have heard Macready, the elder Vandenhoff, George Vandenhoff, and Mr. Bellow read this passage, and all read "like Lucifer" in slow and solemn time. ;

Examples might be multiplied to show that the *nature* and not the *value* of the simile is the safe guide for the elocutionist.

## PHYSICAL CULTURE.

BY MISS SMITH, TRACADIE, N.B.

Read before Gloucester County Institute.

### I.

It is only within the last few years that the necessity for physical in connection with mental development in our Public Schools has been taken into serious consideration. Nor is it entirely the fault of the Teacher, though many grave charges are laid at his door, that even yet, in many schools, little or no attention is being paid to Physical Culture.

It will, I fear, be some time before public opinion will become convinced that the Teacher is employed for other purposes than for the teaching of the famous three R's, and for the burdening of children's memories with historical events, and dates, which are generally dry bones, into which no life has ever been breathed, geographical information concerning Siberia, Patagonia or some other outskirt of Creation, and grammatical rules, power over which often renders the students rulers of very empty realms! Whether, in accomplishing this mission, the Teacher lays the foundation for confirmed invalidism, imbecility or insanity,—or whether he consigns his victims to untimely graves (which may upon the whole be preferable) is seldom taken into consideration.

We have all heard, and in a passive sort of way we all believe, that a sound mind requires a sound body, yet we seldom associate high physical health with great mental capacity. Indeed, I think we have all observed the physical characteristics of a scholar: stooping shoulders, drooping heads, impaired eyesight, a cadaverous complexion, contracted chest, lax muscles, a shuffling gait, a hacking cough, and a voice, in comparison with which the sound of filing a saw or the scream of a guinea hen is sweet music. Added to these attractions, when in company an embarrassing uncertainty regarding the proper place to locate arms and legs, which gives very decided evidence that, though our wise man may have learned the Greek for a *chair*, he has never learned how to sit upon one.

We do not often hear the personal beauty of such a man descanted upon, yet we often hear the exclamation in tones of warm admiration: "Oh, he is so intellectual looking."

Does it not cast a sort of stigma upon mental attainment, this suggestion that it precludes the possibility of grace, comeliness, and even bodily health?

So accustomed have people become to associate physical weakness and plainness with mental capacity that it is not unusual for parents to set aside to mental pursuits those children who give early indications of delicacy of frame, never dreaming that in so doing they are condemning them to suffering that is often worse than death, besides imposing upon society a set of incapable practitioners whose incompetency brings a stigma upon the noblest professions. It is a lamentable fact that many such are to be found filling the offices of physicians, preachers and teachers. "Only fit

for a Teacher" is an expression that has often come to my ears in connection with children physically weak. Not a year ago, I had in my school a lad, whose mother urged me to keep him closely at his books in school and to assign him heavy home tasks, that he would have no time for play assigning as a reason, that, as he seemed weakly, and sickly, and *good for nothing*, she thought she would make a Teacher of him, and she wanted to get him through as soon as possible. Had I acted upon her suggestions I do not know but I might have got him through the cares of this life sooner than she intended. I know another, who, as a boy, possessed every condition of a sound constitution, and, naturally speaking, had every prospect of a long and useful life. As he gave evidence of considerable mental capacity, his parents consigned him to a course of instruction, where from childhood the mental faculties were strained to the utmost, while he was carefully kept from participating in physical recreations, his father declaring that it was waste of time, and took his mind from his work. A year ago, after a brilliant course of study, in which he delighted the hearts of his parents and instructors, he succeeded in carrying off the highest honors of his classes; but before he had entered upon the practice of the profession for which he had prepared, outraged nature gave way, and the victim died, not, as people said, from hard study, but from want of physical development.

With such evidences of public opinion before us we can understand the difficulties which meet and hinder the Teacher in his attempts to make his school a school for the body as well as for the mind.

The time spent by the Teacher in promoting the physical health of the pupils is in many cases regarded by the parents as a wilful waste of the hours, the Teacher being, in their opinion; ready and willing to shirk his duties upon every possible occasion, and I have known them, in consequence of this fancied neglect on his part, institute a series of annoyances, which might be compared to the stings of wasps, so small as to be scarcely perceptible, but, at the same time, so extremely exasperating and tiresome that one can scarcely wonder that the Teacher becomes discouraged, and resigning all attempts to do more than keep within the conditions of his contract, fills the hours in any way calculated to secure to himself the least interference and annoyance.

But when we remember that we are working not so much for the gratification of the caprices and prejudices of a few, as for the advancement of humanity, not so much for the present as for the future, not so much for time as for eternity;—when we reflect that in every right impulse we impart we enjoy a glorious immortality, I am sure that we will not only acknowledge but rejoice that the duty of developing the interest which has recently been awakened in physical culture devolves upon the Teachers of Public Schools. I do not know that it is in the power of the Teachers of our Province to reanimate the spirit of the Olympian days, but I do think they may do much towards changing from a truth to an untruth, or towards rendering altogether obsolete, the saying that "every generation grows wiser and weaker."

It does appear that intellectual excellence is purchased at a very high price when its possession implies the forfeiture of all that renders life enjoyable or even endurable.

"A sound mind requires a sound body."

It is sometimes objected that the enjoyment of high physical health disinclines one to intellectual pursuits, as it involves an amount of bodily action that hinders mental application. The man who neglects his bodily health in order to arouse action of mind cannot exercise a healthful influence upon his fellow creatures. At one time he is in a state of ecstasy which, if his attention be turned to religious subjects, develops into fanaticism, and the next hour he is plunged into the very slough of despond, where

gloom, horror, and desolation reign on every hand; and this state of mind is not unfrequently mistaken for genius, from which it appears that authors, particularly poets, have a license to be as moroso, as uncivil, as selfish, and altogether as disagreeable as possible, under the disarrangement of the physical system which affects them thus peculiarly.

Not long since I was favored with the perusal of a letter written by a gentleman who has established a claim to more than ordinary intellectual capacity. The whole epistle was considered rather a superior bit of composition, and among other passages I was struck with the following:—"I am dissatisfied, dull, and unhappy. On every hand I am checked and thwarted by some cursed fatality that pursues me like a fiend. I see only falsehood and treachery in my fellow-creatures, and the sadness underlying life oppresses me almost beyond endurance." A few days after, I was not surprised to learn that the writer was prostrated by a severe attack of neuralgia, caused by exposure (without sufficient wrappings) to a snow storm. Any person who has been tortured by the same fiend will readily understand the emotions which influenced the sufferer.

That genius which owes its power to beget, to a sort of hysteria caused by bodily ill-health, just as certain atmospheric lights are caused by a commingling of bad gases, is certainly a doubtful blessing to society, as well as to the possessor.

I sometimes think that three-fourths of the literature of the present day (especially the poetry) owes its existence to dyspepsia or tight boots.

But it is not only in the literary world that soundness of body is required. In every calling and position in life, a man's success and happiness are dependent upon his physical condition. It is health which renders the hardest labor endurable, and the hardest fare enjoyable. The conditions of physical health are the foundation of a nation's civilization, prosperity, and morality; and I may add, that the means of health formed an important part of the Jewish religion.

Before the age of mental power in Greece was the age of animal life, when the first care was to make man a magnificent animal, when physical weakness was considered a positive disgrace, and physical deformity was not allowed to exist, and when physical strength and endurance were regarded as the noblest virtues! After this came an age of intellect such as had never been equalled; and though, according to our teachings, those wise men were heathens, and by our plan of salvation are excluded from the joys of Heaven, who shall say that they have not an enviable immortality, inasmuch as we have heard their voices that have come down the ages in tones that shall re-echo to all eternity?

Conditions of physical health, as far as we can promote it in the school-room, and for which the Teacher is in a measure responsible—

#### *First, Frequent change of position.*

In some schools it is the custom to keep children standing during a recitation of half an hour, three-quarters, or even an hour's length. This brings a fatigue that is really painful to a strong and positively injurious to a delicate child. I do not think that children or even grown people can stand in one position without fatigue longer than ten or fifteen minutes. A lengthy recitation with pupils in a sitting position is also ill-advised, especially if the pupils be small. If the pupil's position be lounging and careless, the recitation is very apt to be the same; and yet if a child is obliged to sit upright for any length of time, the weariness of body brings on weariness of mind, which results in nervousness and often severe headache.

#### *Second, Position in sitting, standing, and walking.*

We know the inclination which pupils have to lean upon the desks in front of them, and we know also, the rounded shoulders

and contracted chests which are the results of such leaning; the cramped position rendering impossible waist breathing, which is so necessary to sound lungs, and the neglect of which is almost certain, sooner or later, to bring on heart disease, dyspepsia, or consumption.

Fatigue from standing shows itself in drooping heads and rounded shoulders, or in one shoulder elevated above the other. Continuance in these positions will at length produce positive deformity, and I think you will agree with me that physical deformity is apt to bring on mental deformity in proportion.

In walking, we have to guard against moping along, with eyes on the ground, shuffling feet, arms akimbo, and, if our pupils be boys, hands in pockets. We must seek to secure uprightness of head and chest. The body should by its muscles be moved, and our pupils must sit, walk, and stand erect. The head, the lodging of the brain, may be regarded as the seat of mental capacity, and the chest, the lodging of the heart, as the seat of moral power. Is it strange that great attention to these two should be considered necessary?

For the securing of a proper position and carriage of the head and body Professor Monroe has prescribed a set of drill exercises, which are intended to impart elasticity and strength to the muscles, while the result is ease, dignity, and grace to the limbs, whether in motion or repose.

#### *Third, Avoiding of draughts.*

Children play violently, and it not unfrequently happens that they enter the school-room when very warm, and are exposed to currents of air, by which perspiration is suddenly checked, and the result has been known to be death. Also, when overheated, they are apt to seek coolness in immense draughts of cold water, than which nothing can be more injurious.

Another cause of much suffering is cold feet, and in country school-houses this is an evil very difficult to remedy. The physician's counsel to keep the head cool and the feet warm is generally obeyed in inverse order, for while the brain is rendered dizzy and almost inactive by the heat, the feet appear to be congealing.

Besides the very uncomfortable sensation, this is very dangerous; and if, as often happens, the shoes and stockings are wet, the danger is immeasurably increased. Neglect of these trifles is often the cause of illness, sometimes of death, which is laid at the door of hard study.

## THE PUBLIC SCHOOLS IN CALIFORNIA.

BY PROFESSOR ANDERSON, SANTA CRUZ.

### II.

The manner in which the school funds are apportioned to the different districts is very peculiar. The County Superintendent "must ascertain the number of teachers each district is entitled to, by calculating one teacher for every one hundred census children, or fraction thereof of not less than fifteen census children, as shown by the next preceding census. He must ascertain the total number of teachers for the county, by adding together the number of teachers assigned to the several districts. Five hundred dollars shall be apportioned to each district for every teacher assigned it;" but districts having ten and less than fifteen census children must receive \$300. School money remaining after making this appropriation must be apportioned to the several districts having not less than 50 census children, in proportion to the number of census children in each district. This mode was adopted, I believe, for the sake of small districts in sparsely settled counties; but its effect is likely to be disastrous. It encourages the formation of

small districts containing only 15 or 16 children, and very materially lessens the amount justly due the larger districts, while the stimulus afforded by apportionment on the basis of average attendance is unknown. A "census marshal" is annually appointed for each district, who must "take a census of all children in his district under seventeen years of age." This census is taken in June.

The law also provides for a Library Fund, which consists of ten per cent. of the annual State School Fund, unless that ten per cent. exceeds fifty dollars. In cities not divided into school districts the Library Fund consists of the munificent sum of fifty dollars for every 500 children between the ages of 5 and 15 years. This fund *must* be expended in the purchase of apparatus and books for the school library.

The following statistics will probably be interesting—they refer to the school year ending June 30th, 1878: Whole number of children in the State between five and seventeen years of age, was 205,475; of these 154,069 were enrolled in the public schools, while 15,310 attended private schools. The fact that many if not the majority of schools admit no scholar under six years of age, will account for part of the difference between the number of children in the State and the number attending some school. There were 1,920 school districts in the State, and 2,578 schools. The schools were kept open an average of 7 $\frac{1}{2}$  months of 20 days each. The number of teachers was 3,298; of these, 2,101 were females. The value of school property was \$6,343,369. The State school tax amounted to \$1,292,485.81; county school and poll taxes, \$728,360.05; while the total receipts from all sources were \$3,820,661.20—a sum of which even the "Golden State" may well be proud. Of the above amount, \$2,272,551.19 were paid for teachers' salaries. The total expenditure for each census child was \$15.86: for "average number belonging," \$30.63; while the average monthly salary paid to male teachers was \$83.95; to female teachers, \$68.25; and the average salary per annum, \$690. In addition to the above expenditures, the State paid the munificent sum of \$33,000 for the support of our Normal School, and for the University about \$100,000.

Though the above figures are probably as many as most readers will care to peruse, it may be well to give a few more, not taken from the official reports, but just as accurate. Rural schools are open usually about six or seven months, though not a few must be open even a shorter time. Teachers are only paid per month of 20 teaching days. No holidays are paid for in California. So, if a person is employed at \$70 per month, and teaches even eight months, his salary for the year is only \$560, not \$840. He is, however, paid at the end of each month. Occasionally a teacher closes school in one district, because the funds are exhausted, and immediately begins in another district. One, a shrewd Canadian, lately told me that last year he actually taught over 11 school months, and thus realized about \$1200. The opportunity of doing that is constantly lessening, in consequence of the alarming facility with which teachers are manufactured. In the northern part of the State I understand the salaries are much larger in the rural districts than here. In this county they range from \$50 to \$100 per month, and are perhaps rather lower than in any other county. The expenses of living are much higher than in Canada. I do not know what is paid for board in the rural districts. Many teachers ride on horseback several miles to their schools. Board in towns and cities will range from about \$36 to \$45 per month, including washing. Clothing is also dearer than in Canada.

There are far more teachers than are needed, and they are being turned out, full-fledged, by wholesale. The college graduate fares no better than the man who manages to cram enough to answer mere facts and to guess conundrums. The examinations,

regarded as tests either of scholarship or of teaching power, are little better than a farce. The absurdity of attempting to crowd into three days written examinations in 19 different subjects, is so apparent that the perpetuation of the attempt is remarkable. The examinations are hard, because they are not tests of scholarship; and in the attempt to hurriedly answer what only requires a good memory and ready wit, the man whose mind has been broadened and whose intellectual powers have been strengthened by a thorough high school and collegiate course, without special preparation, is more likely to fail than the raw youth just newly stuffed with facts and dates. It would, however, be very unfair to judge of our teachers as a body by these examinations. There are amongst them graduates of the best Eastern colleges, including Harvard and Yale, and many others who had in early life the advantages of the academic and high schools that abound in the New-England States. These have been a leaven that has leavened the lump, and prevented the narrowness and shallowness that would have been the inevitable result of entrusting our schools to persons possessing simply the legal qualifications. I fully appreciate the necessity of professional training, and cheerfully acknowledge the advantages California has derived from the attention "methods" have received. I believe that no one should be allowed to engage in teaching until after some special training, and am not a little proud that Ontario has far outstripped all her neighbours in this respect. But knowledge must precede "methods." No amount of training or study of "methods" will enable any one to teach what he does not know—a fact which seems to be overlooked by some of those in "high places."

Many of our schools are excellent. This is particularly true of the lowest grades. I know several schools, one especially, in which the primary work surpasses any similar work Ontario could exhibit a few years ago. As we ascend to the grammar grades, less favorable results are obtained. The fault here is not so much in the teachers. They are just as faithful and as capable. Our great difficulty is the text books; and when teachers are compelled to use only a few prescribed text books, a poor one is an unmitigated evil. Ours are simply detestable—they have not a redeeming feature. Our readers are insipid and childish; our arithmetics filled with "lumber," though they are the best texts in the lot; our geographies are sure to kill all love a class may have for the study, if followed with any degree of closeness; our history (Swinton's) is probably the worst book ever put into a scholar's hands, being simply a mass of names and dates; as for the word analysis—it is scarcely on a par with the rest. The style of examination questions to which I have referred encourages "cramming" instead of teaching. In looking over published examination papers one is struck with the large proportion that simply tax the memory. All these influences necessarily affect the schools injuriously, but I apprehend the memorizing plan is less prevalent than formerly. This is particularly the case in cities, where salaries secure first-class teachers. Even in such cases, however, the results obtained might be secured in less time if the text-books were free of all useless matter. As compared with the corresponding classes of the Ontario schools of about ten years ago, our Public Schools in the higher grades are superior in efficiency. On the other hand, with a few exceptions, our High Schools are inferior to the Ontario High Schools of that period.

It is frequently claimed that our schools are the best on the continent; or, at least, that they equal the Boston schools. I occasionally meet teachers from Michigan, others from Wisconsin, and others from other States, who claim that the school system of their respective States is the best. Which is entitled to the palm I know not. California has just reason to be proud of the efficiency of her schools. A State 28 years old, that has established

schools in every settlement; that has primary schools of the greatest excellence, and whose grammar schools are what I have attempted to describe, may well be proud of what she has accomplished. While awarding her this well-merited praise, it is necessary, in order to give a correct idea of the schools, to point out defects and difficulties that hinder her progress.

I have already remarked that though the intention is that the schools of the same grade in all parts of the State do the same work, the practice is another thing. In receiving scholars from other schools, principals everywhere find the widest divergence in attainments. Some schools neglect one study some another, the one most usually overlooked being arithmetic. This is the natural result of an inefficient system of inspection. One of our weakest points, probably the weakest, is the want of a thorough supervision. The salary allowed county superintendents is altogether too meagre, or the number of schools under charge of each is too great to permit of thorough inspection. As a rule, their official visits are "bo-peep" affairs, merely a formal compliance with the law. Moreover, the necessity of thorough inspection is not fully appreciated. In fact, in a meeting of some 10 or 12 superintendents, a short time ago, I heard one frankly declare that he would be thankful to any one who would tell him his duty in visiting a school! So long as the salary is insufficient to recompense men of the highest type, so long will the inspection be of little service. In Ontario, where a thorough system of superintendence has been established, the effect of the Californian plan upon the schools can be easily understood.

Another weak point is the equivocal position of our high schools. Those we have are looked upon by many as unseemly and extravagant excrescences on our school system. Everything has been done for the primary and grammar schools, and nothing for the high schools. Take your admirable high schools out of your school system, and what would be the result? Deprived as we are of much of the healthy stimulus these afford, the progress made by our schools is all the more remarkable. Notwithstanding this neglect, we have in every city a high school of some sort, and some of them are doing admirable work. This is the case when the corps of teachers is composed of men and women of high attainments. Except those who teach classics, or German and French, no extra qualifications are demanded of high school teachers, and consequently all engaged in high school work have not that thorough education that is necessary to ensure success. Each high school arranges its own course, and, with one exception, none of them extend that course beyond three years. The exception to which I refer is the San Francisco Boys' High School. Lately they found it necessary to admit the classical boys one year earlier than the English ones, so as to complete in proper manner the university matriculation subjects. In addition they have a post graduate class composed of those who intend entering Harvard. This makes their classical course extend over five years. I lately visited that school, and was delighted with the work I saw. The moral tone of the school impressed me at once, and I could well believe the classical master when he assured me that in the senior classical class there was not a "mean boy." The discipline is eminently calculated to make self-reliant, manly boys. The teachers whose rooms I visited are men of great ability. The principal is a Harvard man. Another teacher was an instructor in Latin in Michigan University, and afterwards spent some time studying in Germany. The class in Latin prose composition was particularly good. That science is also particularly well taught, I should judge from what little I saw. Another excellent school is the Oakland one, in which are teachers of great ability and no little erudition. This school is attended both by boys and girls, and is rapidly growing. In fact it is claimed that every term, *i.e.*,

twice a year, there are 500 additional children to provide with accommodation in the different grades in Oaklands. Be this as it may, their high school is rapidly growing in numbers and in well-deserved reputation. Its course is, like others, a three years' course. This reminds me that while visiting a high school three years ago, I heard the senior Latin class read Virgil. They merely translated; the class was too large, and the amount of work to be done too great to allow of that close, critical examination so necessary to ensure thorough knowledge of the Latin, and in which, in fact, its great value as a mental discipline depends. The master, who made a most favorable impression on me, complained that he was so hurried by the amount of work to be gone over, "that it was a scramble." I lately heard the same gentleman in charge of a junior Greek class, and as it was small he had time to teach, and did it with admirable skill. These are the sort of men and women to whom I have referred as the leaven that has leavened our whole school system. Because I have mentioned only these two schools it must not be inferred that they are the only two good high schools in the State. There are others, but these two I lately visited, spending agreeably a day in each. Hence the reference to them.

In San Francisco a rule has been lately established that no scholar under 14 years of age can be admitted. This would make the average age of the high school "graduates" about 17. The classical graduates would probably work the "pass" papers of the Toronto University. None of them could pass as severe an examination as is requisite for first-class honors in the junior matriculation. This is particularly true of mathematics. Much has already been accomplished; much more yet remains to be done. There is a growing feeling that a change of some of our machinery must be made. That feeling has been intensified by recently discovered frauds of a shocking character in connection with teachers' examinations. These have been partially investigated, but the source of the mischief has not been discovered. Few expected that it would be discovered. With a strange inconsistency, the demand is being made that the Central Board should be entirely abolished, and each county grant certificates, thus increasing the risk of fraud 52 times, under the plea of securing honest examinations. The constitution of the State Board of Examination is a source of weakness; and in that, as well as in the State Board of Education, changes must be made. But nothing short of radical changes will satisfy many of our people. A convention is now assembled at the capital engaged in framing a new constitution. Not content with a constitution, they are determined to frame laws also, and of course the educational system must receive their attention. They have agreed that State funds must be devoted solely to the maintenance of primary and grammar schools, the Normal School, and the University. High schools may exist, but not at the expense of the State. Thus they will have an expensive university, and not a single feeder! They are not content with altering the constitution of the State Board of Education, they completely demolish it. They cannot leave to the Legislature the solution of defects in educational machinery, but they must needs now make the election of county superintendents a part of the constitution, and thus perpetuate beyond hope of remedy the evils of inefficient inspection. They propose also to entrust to the county superintendent and the board of supervisors of each county, *all* matters relating to schools in their respective counties. Just fancy your county councils prescribing text-books, arranging courses of study, and forming an irresponsible Council of Public Instruction, each for its own county! Yet that is virtually the scheme endorsed, and only waiting final adoption by the convention to go out to the people for acceptance or rejection. If in other respects the new constitution is preferable to the present one, that

retrograde educational section will not be likely to prevent its adoption.

I intended to speak of the State University and of the Normal School; but this article is already too long. I leave them, therefore, untouched.

THE "NEW PRONOUN" DISCUSSION.

To the Editor of the Canada School Journal.

SIR,—I am somewhat surprised that any educated persons should find any difficulty of the kind you speak of in your notice of the above controversy in your March number. The awkwardness of using pronouns of both genders in the singular in connection with two antecedents of different genders, separated by a disjunctive conjunction, is not unavoidable if the pronouns we have in English be only boldly and properly used. Take the sentence quoted by the writer in the *Atlantic Monthly*: "Let every brother or sister examine himself or herself, and looking into his or her heart find out his or her besetting sin and resolutely cast it from him or her." I admit that this is not only awkward but outrageously pedantic; and what is the remedy? Not, certainly, the invention of a new form for which there is no felt necessity, and not the substitution of the plural for the two singular forms, which, as the writer in the *Ohio Educational Monthly* admits, is condemned by all grammarians and shunned by all good writers and speakers. Substitute the one plural for the two singular forms and how much of the awkwardness disappears? "Let every brother and sister examine themselves, and looking into their heart find out their besetting sin and resolutely cast it from them." Instead of being merely awkward and pedantic this is utterly and hopelessly objectionable on the ground that it is based on a resort to the use of an admitted solecism, for which, by the way there is not the slightest necessity, and therefore no justification. The sentence should read; "Let every brother and sister examine himself, and looking into his heart find out his besetting sin and resolutely cast it from him." In English the masculine noun or pronoun is usually the generic term, and as such it includes both sexes; and it is no more awkward or pedantic to use "his" and "him" as above than to say "man is mortal" when we mean to say that women die as well as men. I am very much astonished that any difficulty should ever be felt in the matter, and I hope the teachers of Canada will resolutely oppose any resort to either the invention of a new term or to a solecism in the use of an old one in order to get out of a trouble which exists only in the imagination of those who are imperfectly acquainted with the genius and usage of our English tongue. Yours, &c.,

DELTA.

SCHOOL APPARATUS.

To the Editor of the Canada School Journal.

SIR,—I am glad to notice the independent course adopted by your exceedingly interesting and valuable *Journal* in reference to matters connected with education. Taking advantage of the invitation you have given to teachers and others to write concerning topics of general importance, I desire to call attention to a question that has caused considerable comment in my district.

Can you inform me and the public who constitute the Canadian Apparatus Manufacturing Company? I would like to become a member of it, as they must make fine profits and pay large dividends. Some of the material supplied to our schools can be bought outside the Depository for less than it can be obtained there, even when the country pays one half the price. Rumor says that a certain notable in connection with the Depository is the chief manipulator of the Apparatus Co. This can scarcely be the case, however, because of course the Hon. Mr. Crooks attends to his duties, and he could not pay a clerk to pay himself such large prices for the goods supplied! I wonder if the Minister saw the departmental circular sent out a few days ago, re Improved Cabinet of Chemicals. Does the country pay for this advertisement? If so, it needs to make frantic efforts to save "on surplus examination papers." The country expects Mr. Crooks to do his duty.

PURCHASER.

Mathematical Department.

Communications intended for this part of the JOURNAL should be on separate sheets, written on only one side, and properly pagged to prevent mistakes. They must be received on or before the 25th of the month to secure notice in the succeeding issue.

ALFRED BAKER, M.A., EDITOR.

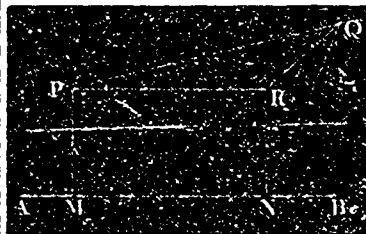
PROJECTIONS, WITH AN EXAMPLE OF THEIR APPLICATION.

DEF.—The geometrical projection of a straight line of limited length upon any other straight line given in position is the distance intercepted between the feet of the perpendiculars let fall from the extremities of the limited line upon the straight line on which it is to be projected.

THEOREM.—The geometrical projection of a straight line of limited length on a given straight line is equal to the given length multiplied by the cosine of the acute angle contained between the lines.

Let  $PQ$  be the line of limited length,  $AB$  the unlimited line upon which it is to be projected.

Let  $QKN$  be a plane through  $Q$  perpendicular to  $AB$  meeting it in  $N$ , and let  $PR$  be parallel to  $AB$ , and therefore perpendicular to the plane  $PQR$ , and meet it in  $R$ . Draw  $PM$  perpendicular to  $AB$ .



Then  $PM, QN$  are perpendicular to  $AB$ , and therefore  $MN$  is the projection of  $PQ$  on  $AB$ . Also, evidently,  $PR = MN$ ; and  $QRP$  is a right angle. Hence projection of  $PQ = MN = PR = PQ \cos QPR$

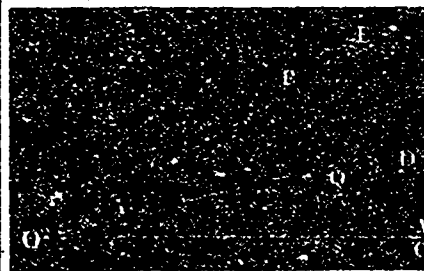
DEF.—The algebraical projection of a line  $PQ$  upon an indefinite line  $AB$ , given in position, is the projection estimated in a given direction, as  $AB$ .

If  $\alpha$  be the angle through which  $PQ$  may be supposed to have revolved from  $PR$ , drawn in the positive direction  $AB$ , the algebraic projection of  $PQ$  is  $PQ \cos \alpha$ .

If  $N$  lies in the opposite direction with reference to  $M$ ,  $\alpha$  is obtuse, and  $PQ \cos \alpha$  is negative.

Evidently, the algebraic projection of a limited straight line upon a line given in position measures the distance traversed in the direction of the latter line in passing from one extremity of the former to the other. This consideration shows that if two points  $P$  and  $Y$  be joined by any number of broken lines  $PQ, QS, ST, \dots XY$ , passing in any direction whatever, their algebraic projections on any straight line given in position is equal to the algebraic projection of the straight line joining  $P$  and  $Y$ .

To prove  $\cos(A+B) = \cos A \cos B - \sin A \sin B$ , &c.



Let  $COD, DOE$  be the angles  $A$  and  $B$ , so that  $COE = A + B$ . From any point  $P$  in  $OE$  draw  $PQ$  perpendicular to  $OD$ . ( $PQO$  is a right angle,—the figure is not well made.)

Then  $PQ = OP \sin B$ ,

$$OQ = OP \cos B.$$

Also the projection of  $OP$  on  $OC$  is equal to the sum of the projections of the broken lines  $OQ, QP$ .

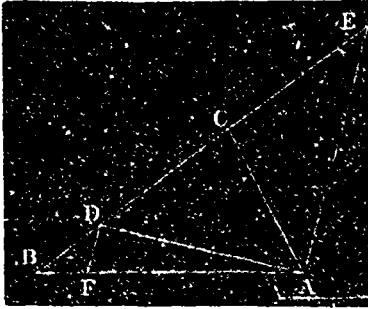
$$\therefore OP \cos(A+B) = OQ \cos A + PQ \cos(90^\circ + A) = OP \cos A \cos B - OP \sin A \sin B.$$



Or  $\cos(A + B) = \cos A \cos B - \sin A \sin B$ .

By projecting in a similar manner on a line perpendicular to  $OC$ , we may show that  $\sin(A + B) = \sin A \cos B + \cos A \sin B$ . By exactly analogous methods we may obtain the expressions for  $\sin(A - B)$  and  $\cos(A - B)$ .

Geometrical Proof of  $\tan \frac{1}{2}(A - B) = \frac{a - b}{a + b} \cot \frac{1}{2}C$ .



Let  $ABC$  be the triangle and let  $a$  be greater than  $b$ . From  $CB$  cut off  $CD$  equal to  $CA$ . Produce  $DC$  to  $E$  making  $CE$  equal to  $CD$  or  $CA$ . Join  $EA$ , and through  $D$  draw  $DF$  parallel to  $EA$ .

Hence  $DAE$  is a right angle, and therefore also  $ADF$ .

We have  $BAD = A - CAD = A - CDA = A - (B + BAD)$ ;  $\therefore BAD = \frac{1}{2}(A - B)$ . Also  $E = \frac{1}{2}C$ .

$$\begin{aligned} \text{Then } \tan \frac{1}{2}(A - B) &= \tan BAD = \frac{FD}{DA} = \frac{FD}{AE} \cdot \frac{AE}{DA} = \\ &= \frac{BD}{BE} \cdot \frac{AE}{DA}, \text{ (by similar triangles } BDF, BEA) = \frac{BD}{BE} \cot E \\ &= \frac{a - b}{a + b} \cot \frac{1}{2}C. \end{aligned}$$

SOLUTIONS SENT IN.

Solutions of Problem 6 ("A Farmer") have been sent in by "Teacher," of Caradoc, Mr. L. Nutting, of Kinsale, J. Anderson, of Dixie, G. Shaw, of Kemble, and Chas. L. Burton, of Gilford. The following is one of them:

Let  $ABCD$  be the rhomboid, whose sides  $AB, AD$  are 12 and 7 respectively, and whose diagonal  $DB$  is 11. From  $D$  draw  $DE$  perpendicular to  $AB$ .

$$\begin{aligned} \text{Then } AC^2 &= AB^2 + BC^2 + 2AB \cdot AE. \\ \text{Also } BD^2 &= AB^2 + AD^2 - 2AB \cdot AE. \\ \therefore AC^2 &= 2\{(AB)^2 + (BC)^2\} - (BD)^2. \\ AC &= \sqrt{265} = 16.27. \end{aligned}$$

[In saying that there are two solutions, one Algebraic and one Geometrical, "Farmer," if we understand his meaning, is seeking to draw a distinction where none exists. The question is an example of the application of the science of numbers to Geometrical magnitude, and both Geometry and Arithmetic (or Algebra) must enter into the solution. A Geometrical construction may be obtained for  $AC$  as follows: From  $A$  and  $B$  as centres describe circles with radii 7 and 11. Through  $D$  their point of intersection draw  $DC$  parallel to  $AB$ , and through  $B$  draw  $BC$  parallel to  $AD$ , then  $AC$  is the other diagonal.]

J. A. Your solution of 2 was incorrect. The log of  $2^n + 8^{n+1}$  is not  $n \log 2 + (n + 1) \log 8$ .

G. S. Will you try 7 (March number) again in the form in which we have put it?

SOLUTIONS ASKED FOR.

"Subscriber" asks for solutions of the following (1, 2, 3):

1. In a certain factory were employed men, women and boys. The boys received 3 cents per hour, the women 4 cents, and the men 6 cents. The boys work 8 hours per day, the women 9 hours, and the men 12 hours. The boys received \$5 as often as the women received \$10, and the women received \$10 as often as

the men received \$24. How many of each were there, the whole number being 59?

SOLUTION. Each boy gets 24 cts. per day, each woman 36 cts., and each man 72 cts.  $\therefore$  their daily earnings are as 2 : 3 : 6. And the total amounts received by each class are as 5 : 10 : 24. Hence their numbers must be as  $\frac{5}{2} : \frac{3}{2} : \frac{24}{6}$ . Dividing 59 in this ratio, we find 15 boys, 20 women and 24 men.

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

SOLUTION. Let  $x = A$ 's stock.  $\therefore x + 250 = B$ 's. And the profits are to be divided in ratio  $x : 3 : (x + 250) : 5$ . Hence we have the equation  $\frac{8x}{8x + 1250} \times 700 = x - 300$ . Whence  $x = \$500$ .

3. Find a decimal multiplier that will convert Troy ounces per inch into tons per mile.

Answer.  $\sqrt[4]{\frac{35}{1000}} \times \frac{1}{2000} \times \frac{12 \times 3 \times 54 \times 40 \times 8}{1}$  converted into a decimal.

Mr. H. J. Emery, Bellrock, asks for the solution of the following problem:

A train left Cambridge for London with 40 more 2nd class passengers than 1st class, and 7 of the former would pay 2s. less than 4 of the latter. The fare of all was £55. When half way they took up 35 more 2nd class and 5 more 1st class passengers, and the whole fare was then  $\frac{1}{2}$  more than it was before. Find the 1st class fare, and the whole number of passengers at first.

SOLUTION.—Let  $x =$  No. of 1st class passengers at first. Then  $x + 40 =$  No. of 2nd class passengers at first. Also let  $y =$  1st class fare in shillings.  $\therefore \frac{4y - 2}{7} =$  2nd class fare. Then from fact that total fare was £55, we have the equation

$$xy + (x + 40) \frac{4y - 2}{7} = 1100.$$

And since additional half-way passengers paid £11,

$$5 \frac{y}{2} + 35 \frac{4y - 2}{14} = 220.$$

Whence  $y = 18$ , and thence  $x = 25$ .  $\therefore$  Ans. 18s. and 65 passengers.

"LINKAGE."—There are articles on the subject scattered through back numbers of some magazines. Cannot lay our hands on them just now, but think they have not as yet been collected into book form. On pages 49, 50, 51 of the book you speak of you will find authorities referred to.

Practical Department.

MISTAKES IN TEACHING. VI.

BY JAMES HUGHES.

It is a mistake to punish without explanation.—Teachers sometimes say, "Smith, take a misdemeanor mark," or "Mary, stay in at recess," or "Brown, hold out your hand," etc., without taking time to explain why the mark or the prohibition or the whipping should be given. "It would waste too much time; I could do very little else in my school" is the justification given for such a course. The answer given is likely to be correct in schools in which such a method of punishment is adopted. The teacher who adopts such a course will soon have sufficient reason to conclude from his standpoint that explanations would "waste time."

Punishment is a judicial act, and it should be administered judiciously. A boy or girl has a right to know why it receives punishment, before the punishment is inflicted. If the teacher does not take the trouble to give it this explanation in a perfectly candid manner, he gives the pupil just cause for regarding him as a petty tyrant, who punishes merely for the personal gratification it affords him. Punishment produces good results, not according to the amount of pain caused, but in proportion to the clearness with which pupils see the nature of the offence and the justness of the penalty. Pain by itself causes anger, resentment, and a desire for revenge; therefore no teacher should cause pain without taking care to neutralize its evil effects. Whipping alone is brutal and brutalizing. A pupil who receives such treatment naturally grows sullen, and becomes doggedly resistful. He believes that his teacher has a dislike to him, and he cannot be blamed for coming to this conclusion. It is the teacher's fault. Parents get their impressions of the teacher from their children, and so he loses the confidence of both pupils and parents. There is nothing that parents so quickly resent as injustice to their children. Whether the injustice be real or imaginary is not of the slightest consequence so long as the impression is made on their minds. The teacher's influence is often paralyzed, therefore, by causes which he has himself set in motion. He is shorn of more than half his power if the parents of his pupils lose confidence in his unswerving justice. One of the quickest ways to secure the distrust of the public is to inflict punishment of any kind and leave the pupil to decide its causes, as well as to suggest the teacher's motive.

It is well to remember that the pupil directly concerned is not the only one interested in punishment. Great care should be taken to make the whole class see the fairness and justness of the punishment before administering it. They should not be allowed to think that they have a right to decide that punishment shall not be given by the teacher as he deems proper; but they should be led to understand very clearly, that the teacher punishes solely for the benefit of the individual or the general good, that his decisions are uniformly and impartially based on equitable principles, and that he is always glad to state his reasons for awarding punishment of any kind. If the class do not approve of the punishment, it produces evil results.

Punishment inflicted hastily will often be unjustly given. If the teacher cannot explain satisfactorily the reason for a punishment, he should doubt the propriety of imposing it. The attempt to state his reasons may often lead him to modify his decisions. Horace Mann says, "I confess that I have been amazed and overwhelmed to see a teacher spend an hour at the blackboard explaining arithmetical questions, and another hour on the reading or grammar lesson; and in the meantime, as though it were only some interlude, seize a boy by the collar, drag him to the floor, castigate him, and remand him to his seat; the whole process not occupying two minutes."

The marking sheet on which are entered the marks for misconduct or imperfect lessons should always be hung near the door, so that the pupils in passing may see at a glance if any mark has been accidentally and incorrectly placed opposite their names. In this way only can full confidence be established in the accuracy of monthly reports to parents.

## PENMANSHIP IN SCHOOLS. VII.

### CLASSIFICATION OF SMALL LETTERS.

The small letters may be classified in three different ways, viz.:

1.—A classification based upon length will give three classes, as explained in a previous article. 1. The shortest, or body letters,

usually called MINIMUM, such as *a, c, m, n, &c.* 2. The extension letters, with a main stem, such as *d, p, t & q*, called the STEM LETTERS. 3. The LOOP LETTERS, such as *b, f, h, y, z, &c.* The latter might be subdivided into—upper extension, such as *b, h, k, & l*; lower extension, such as *g, j, y, & z*; and double extension, such as *f* and long *s*.

II.—A classification based upon form will give three classes: those pointed at the top, like *i* and *u*; those rounded at the top, like *n* and *m*; and such as expand into loops, like *b* or *y*.

III.—A classification based on movement in formation will give three classes. 1. Such as begin with a concave curve, like *i, u* and *c*. 2. Those that begin with a convex curve, like *m, n, &c.* 3. Such as are formed by the extended looped movement, like *b, f, &c.*

The former plan of classification, based upon length, is the simplest, and all that is needed for practical purposes.

### FORMATION OF SMALL LETTERS.

In no way can the theory of correct form be so impressed upon the learner's mind as by pointing out the mistakes he is most likely to make, and giving illustrations of the common errors into which he is most likely to fall, as a negative enforcement of the laws of symmetry. The principal errors which should be pointed out by the teacher, and carefully guarded against by the pupil, are: 1. *Of form*; 2. *Of direction*; 3. *Of shade*.

ERRORS OF FORM arise:

1. From a disproportion in the parts of a letter.
2. From a too great curvature of the curved parts.
3. From a too little curvature of the curved parts.
4. From improperly combining straight lines and curves.

These errors destroy the *symmetry* of the letter.

ERRORS OF DIRECTION have reference mainly to the degree of slant of the downward stroke; which may incline either too much to the perpendicular or too much to the horizontal.


These errors destroy the *harmony* of letters and the *uniformity* of the writing as a whole.

ERRORS OF SHADE occur in: 1. Making the shade too heavy; 2. Making it too light; 3. Placing it improperly, generally too high; 4. In making it rough and ragged instead of smooth and even; 5. In not gradually increasing and diminishing it on curved lines.

In the following explanations of formation the letters are taken up in regular order. The mode of classification is left with the teacher. An excellent order of introducing the letters will be found in the elementary numbers of *Beatty's Headline Copy-books*.

The following analysis is so simplified by the use of only three elements that it can be easily understood by the youngest pupils.

CORRECT EXAMPLE.—The letter *a* is begun at the base with a con-


 vex curve, carried up on an increased slant to the height of the letter—one space. The first downward stroke returns on this upward curve through about one-third of the space, where it departs in a more direct curve to the base line, and returns in the form of an oval, uniting at the top. The second downward stroke on the regular slant is brought to the base line, and the letter is finished with the upward moving concave curve, which passes to the height of the letter. Be careful to make the turn on the base line short. The shade on the first downward curve should be managed with care. It belongs to *minimum* class, occupies one space, and receives one shade.

Analysis.—Elements 3, 3, 2, 1, 2.


After illustrating and explaining the proper formation of each letter of the copy on the blackboard, and pointing out the elements that enter into its construction, the teacher should see that the proper style of penholding and position at desk are observed, then

pass around and note the most common errors his pupils are making. The attention of the class should then be directed to illustrations of the errors noted, and the means of avoiding them should be pointed out. We give a few of the probable errors in the formation of small "a."


**INCORRECT EXAMPLE 1.**—The letter commences with a half loop,

 instead of the upward moving third element; the second part is too short and extends below the base line, instead of resting gracefully upon it; it is finished with a broad oval turn instead of a short half-oval, as in correct example; the upward finishing curve is too much rounded.


**INCORRECT EXAMPLE 2.**—The first upward stroke is a concave


 curve, or second element, instead of a convex curve, or third element, and results in a loop at top. The first downward stroke is too straight, making the body of the letter, which should be a pointed oval, narrow and unshapely. The shade is omitted.

**INCORRECT EXAMPLE 3.**—The first upward curve, instead of


 passing regularly to the height of the letter, turns abruptly to the right, making a loop necessary in returning. The letter is too wide at the top; the second downward stroke is nearly perpendicular, instead of having proper slant.

**INCORRECT EXAMPLE 4.**—Begins at top without the upward


 curve; first downward stroke too much curved and turns too widely at base, making, for the body of the letter, too broad an oval; the shade is placed too high, and the last down stroke has the customary fault of a broad oval turn.

 This letter is three spaces high. It begins with an upward moving concave curve, which turns roundly at top, and, passing down upon the regular slant, crosses the upper curve at the height of one space from the base line, forming a loop which occupies, of course, two-thirds the length of the letter. The second up stroke, which is a concave turn, is, in general direction, parallel with the down stroke, and at the height of one space from base line, finishes with a dot and concave curve carried to the right and upward. When joined to a succeeding letter, this finishing curve takes direction accordingly. The main down-stroke is shaded from the middle to the base line. *Extended loop class*; occupies three spaces. One shade on down stroke near base.


*Analysis.*—Elements 2, 1, 2, 2.

 The small c is one space in height. It begins with a concave curve starting at the base line, and passing to three-fourths the height of the letter, where it joins a short down-stroke on the proper slant of writing; this stroke is turned at the base, and with continuous curve, the line passes to the proper height of the letter and around the short down-stroke, coming down to the base line with a slight convex curve; it turns shortly on the base line, and ends with a concave curve carried to the height of the letter. The curves on either side of the down-stroke should be equidistant from it, and of equal curvature. *Minimum class. One space. No shade.*

*Analysis.*—Elements 2, 3, 2, 3, 2.

 This letter is two spaces high, formed of a pointed oval and stem. The part measured by the first space is an exact small a, the only difference in the two letters being the stem part of the d which passes through the second space. The stem is shaded abruptly at the top, the shade gradually decreasing to the base line. Belongs to *extended stem class.*

*Analysis.*—Elements 3, 3, 2, 1, 2.

 The small e occupies one space, and is very simple in its construction. It starts from the base line with a concave curve carried well to the right, turning into a loop at the top, and coming down to the base line with a slight convex curve; a half-oval turn at the base, and a concave curve carried to the height of the letter, finishes it. The loop occupies three-fourths the length of the letter. *Minimum class. No shade.*

*Analysis.*—Elements 2, 3, 2.

## DIFFICULTIES IN PRONUNCIATION. No. VII.

BY JAMES HUGHES.

### OBSCURE U.

How do you pronounce the word **column**? said one teacher to another.

"Why kol-yum of course," was the reply.

I think you are wrong; I always say kol-um.

Kol-um! I am surprised at you. If you do, you should say vol-um for volume.

Why so!

Because, if you consult Worcester, you will find u marked **obscure** in both cases.

Pass me the dictionary. Yes, you are right; they are both marked **obscure**, and therefore I would pronounce the second syllables of the words in the same way. I would say kol-um, and vol-um.

I, too, would pronounce them similarly; but I call them kol-yum and vol-yum.

I do not see why you say yum. An **obscure** vowel is the short sound reduced. Say um in these words with less force than when sounded alone, and you necessarily get the right sound of the syllable.

So these teachers disputed. So many others have differed in opinion. "I have never had any difficulty in the matter" many will no doubt be able to say. Probably the reason is that they have never carefully investigated the subject. One educator of considerable reputation made this remark to the writer. He had not experienced any difficulty; but he said kol-yum, and vol-um. No wonder he was not troubled.

What is the solution of the mystery? First let us learn its cause. This may be found in the statement made by one of the disputants quoted above. There is a popular belief "that the **obscure** vowel is a weakened **short** vowel." This is a mistake. Worcester says, "In a **majority** of cases, this mark (· under a vow l) may be regarded as indicating an indistinct **short** sound of the vowel." He also states, however, that it "is used to indicate a **slight stress of voice** in uttering the appropriate sound of the vowel, rather than to note any particular quality of sound." This is the key of the situation. To **obscure** a vowel means neither more nor less than to reduce its force. It does not mean to change its sound. It does not require the sound to be "**shortened**" so much as **lessened**, as the result of being in an unaccented syllable. If this fact were thoroughly understood and remembered, most of the inelegant confounding of the **obscure** vowels would be avoided. A great deal of bad pronunciation results from this cause.

With reference to the rule in **obscuring** vowels, Smart is clearer than Worcester. He says, "The five **alphabetic** (long) vowels, and the five **stopped** (short) vowels, also occur in **unaccented** syllables." They are then what we call **obscure**. Smart goes on to say, "The alphabetic vowels are then shorter. The **stopped** vowels, whether accented or unaccented, are uttered as

shortly as possible, and can therefore lose nothing of length by occurring without accent. They are apt to lose, however, something of their distinctness." It is clear, therefore, that there are two classes of **obscure vowels**. But, while this is true of all the vowels, it is especially so of **u**. The reason of this is that the distinction between the sound of the long and short, or **alpha-betic** and **stopped** letters is much more marked in **u** than in any other vowel. Long **u** consists of two sounds, **y** and **oo**. Short **u** is simply a modification of the latter part, and has not the faintest trace of the **y**.

If we remember this fact, and utter the syllable containing the obscure **u** exactly as we would say it, if it formed the whole word, only less distinctly, we are sure to be right. Taking the two words with which we started, we can settle their correct pronunciation by this rule without doubt or difficulty. The final syllables are **ume** and **umn**. How would each be pronounced if it stood alone?

**ume** would be pronounced **yoom**.  
**umn** " " " **um**.

To obscure each syllable, when it is in a word and unaccented, we merely say **yoom** and **um** respectively in a less emphatic manner. Vol-**u**me is vol-**yoom**, and col **u**mn col-**um**. Nature is nat-**yoor**, not nat-**ur**, because **u** would be long in **ure** if it stood alone, and so on with other words.

Such words as ed-**u**cate, mon-**u**ment, and doc-**u**ment are sometimes by persons in high positions pronounced ed-**i**cate, mon-**i**ment, deci-**i**ment &c., "because **u** is **obscure** in the second syllable." Certainly it is **obscure**, but the same rule holds good in such words. **U** standing alone is pronounced **yoo**, therefore the unaccented syllables consisting of **u** alone should still be **yoo** uttered with less force.

GRUBE'S METHOD.

LOUIS SOLDAN, PRINCIPAL NORMAL SCHOOL, ST. LOUIS.

Some of the most important principles of this method of instruction are given by Grube in the following:

"1. (Language.) We cannot impress too much upon the teacher's mind that each lesson in arithmetic must be a lesson in language at the same time. This requirement is indispensable with our method. As the pupil in the primary grade should be generally held to answer in complete sentences, loud, distinctly, and with clear articulation, so, especially in arithmetic, the teacher has to insist on fluency, smoothness, and neatness of expression, and should lay special stress upon the *process* of solution of each example. As long as the language for the number is not perfect, the idea of the number is defective as well. An example is not finished when the result has been found, but when it has been solved in a proper way. Language is the only test by which the teacher can ascertain whether the pupils have perfectly mastered any step or not.

"2. (Questions.) Teachers should avoid asking too many questions. Such questions, moreover, as, by containing half the answer, prompt the scholar, should be omitted. The scholar must speak himself as much as possible.

"3. (Class and Individual Recitation.) In order to animate the lesson, answers should be given alternately by the scholars individually, and by the class in concert. The typical numerical diagrams (which, in the following, will continually re-appear) are especially fit to be recited in concert.

"4. (Illustrations.) Every process and each example should

be illustrated by means of objects. Fingers, lines, or any other objects will answer the purpose, but objects of some kind must always be presented to the class.

"5. (Comparing and Measuring.) The operation at each new stage consists in comparing or measuring each new number with the preceding ones. Since this measuring can take place either in relation to difference (arithmetical ratio), or in relation to quotient (geometrical ratio), it will be found to comprise the first four rules. A comparison of two numbers can only take place by means of one of the four processes. This comparison of the two numbers, illustrated by objects, should be followed by exercises in the rapid solving of problems and a view of the numerical relations of the numbers just treated, in more difficult combinations. The latter offer a good test as to whether the results of the examination of the arithmetical relations of the number treated have been converted into ideas by a process of mental assimilation. In connection with this, a sufficient number of examples in applied numbers are given to show that applied numbers hold the same relation to each other that pure numbers do.

"6. (Writing of Figures.) On neatness in writing the figures, the requisite time must be spent. Since an invariable diagram for each number will re-appear in all stages of this course of instruction, the pupils will soon become able to prepare the work for each coming number by writing its diagram on their slates."

It will appear from this that Mr. Grube subjects each number to the following processes:

I. Exercises on the pure number, always using objects for illustration.

a. Measuring (comparing) the number with each of the preceding ones, commencing with 1, in regard to addition, multiplication, subtraction, and division, each number being compared by all these processes before the next number is taken up for comparison. For instance, 6 is first compared with 1 by means of addition, multiplication, subtraction and division, (1+1+etc. = 6; 6x1 = 6; 6-1-1 etc. = 1; 6÷1=6)

then with 2, then with 3, and so forth.

b. Practice in solving the foregoing examples rapidly.

c. Finding and solving combinations of the foregoing examples.

II. Exercises on examples with applied numbers.

In the following, Mr. Grube gives the outline, the skeleton as it were, of his method, trusting that the teacher will supply the rest. The sign of division, as will be explained below, should be read at the beginning: "From . . . I can take away . . . — times." By this way of reading, the connection between subtraction and division becomes evident.

The Number Four.

I. The pure number.

a. Measuring.

(1) By 1.

	4.	
1	}	1+1+1+1=4 (1+1=2, 2+1=3).
1		4x1=4.
1		4-1-1-1=1.
1		4÷1=4.

(2). Measuring by 2.

2	}	2+2=4.
2		2x2=4.
2		4-2=2.
2		4÷2=2.

(3). Measuring by 3.

3	}	3+1=4, 1+3=4.
3		1x3+1=4.
3		4-3=1, 4-1=3,
3		4÷3=1 (1 remainder).

(In 4, 8 is contained once and 1 over; or from 4 I can take away 8 once, and 1 remains.)

Name animals with 4 legs and with 2 legs.

Wagons and vehicles with 1 wheel, 2, and 4 wheels. Compare them.

4 is 1 more than 3, 2 more than 2, 8 more than 1.

8 is 1 less than 4, 1 more than 2, 2 more than 1.

2 is 2 less than 4, 1 less than 3, 1 more than 1.

1 is 3 less than 4, 2 less than 3, 1 less than 2.

4 is 4 times 1, twice 2.

1 is the fourth part of 4, 2 one-half of 4.

Of what equal and unequal numbers can we form the number 4?

b. Problems for rapid solution.

$2 \times 2 - 3 + 2 \times 1 - 1 - 2 + 2 ?$

$4 - 1 - 1 + 1 + 1 - 8$ , how many less than 4? etc.

c. Combinations.

What number must I double to get 4?

Four is twice what number?

Of what number is 2 one-half?

Of what number is 1 the fourth part?

What number can be taken twice from 4?

What number is 3 more than 1?

How much have I to add to the half of 4 to get 4?

Half of 4 is how many times one less than 3? etc.

## II. Applied numbers.

Caroline had 4 pinks in her flower-pot, which she neglected very much. For this reason, one day one of the flowers had withered, the second day another, and the following day one more. How many flowers did Caroline keep?

How many dollars are  $2 + 2$  dollars?

Three apples and one apple?

4 quarts = 1 gallon.

Annie bought a gallon of milk, how many quarts did she have? She paid 1 dime for the quart, how many dimes did she pay for the gallon?

4	}	quart,	}	1	dime.
		quart,		1	dime.
		quart,		1	dime.
		quart,		1	dime.

What part of 1 gallon is 1 quart?

If 1 quart costs 2 dimes, can you get a gallon for 4 dimes?

A cook used a gallon of milk in 4 days. How much did she use each day.

## Notes and News.

### ONTARIO.

Woodstock is to have a \$20,000 Model School.

The estimated expenditure for public school purposes in Toronto for 1879 is about \$93,000.

The Toronto Collegiate Institute is too small to accommodate the number desiring to attend. The trustees have decided to enlarge it.

Belleisle requires \$12,750 for school purposes this year.

West Middlesex has 97 schools and 110 teachers.

London Teachers' Association has taken steps to get a good professional library.

St. Mary's High School is succeeding so well that the trustees expect soon to have it recognized as a Collegiate Institute.

West Huron Teachers' Association requested Dr. McLellan to prepare an Algebra, and thanked him for his works on Mental Arithmetic. The following resolution was also passed by the Association. Resolved, that military drill in schools is highly beneficial, not only as a means of developing the muscles and expanding the chest, but is also a valuable aid in promoting orderly habits and

good discipline, and therefore we consider that it should be introduced into all our Schools.

The Kindergarten system is to be introduced into the Ottawa Public Schools.

Napanee High School Board has granted a sum of money to purchase a reference library.

Almonte High School has an attendance of 123. The number at the Public School is 318.

The Inspector of Schools in St. Catharines is to have the privilege of whipping refractory pupils. We hope his salary may be increased in proportion to the amount of his new duties which he does not perform.

The school attendance in London is 2,641.

East Middlesex Teachers' Association adopted a resolution at its last meeting, recommending that Kirkland & Scott's Elementary Arithmetic, the Epoch Series of English History, and Swinton's Language Lessons be introduced as text books.

The average salary paid to male teachers in Lincoln Co. in 1878 was \$409, highest \$700. The average for female teachers was \$261, highest \$360.

Toronto has added two more first-class teachers, Miss Bertha Sims and Miss Annie Black, to the public school staff. About one-fifth of the whole number of first class teachers in the Province are engaged by the Toronto Public School Board.

East Middlesex teachers are to have the privilege of receiving instruction in drawing from one of their number, Mr. S. K. Davidson.

There are 270 pupils in attendance at the London High School.

We are glad to learn that the Forest schools are progressing very favorably under the newly appointed staff of teachers.

The professional examinations of second class candidates were held in Toronto and Ottawa on March 26th and following days. The examiners at Ottawa were Messrs. McLellan, Glashan and Ross; in Toronto, Messrs. Marling, Tilley and Hughes. The examination was partly written, but mainly of a practical character.

Inspector Gray, of St. Catharines, reports as follows in his annual report for 1878. He says: "During the year now past, 1,815 pupils have been enrolled, giving an average attendance of 1,043. Taking the amount paid for salaries, supplies and repairs, I find each pupil's education for the year has cost \$6.87. The daily average is not so large as it might be. Many of the teachers call upon the parents of those children who are irregular in their attendance, with a view of calling their attention to the importance of sending their children regularly to school; but such is the indifference manifested in this matter that our efforts to secure a high average have only been partially successful. The staff consists of twenty-five teachers, to whom the highest salary paid is \$700, and the lowest \$254. The total expenditure for school purposes during the year was \$14,285.11.

Mr. J. B. Somerset, P. S. Inspector for Lincoln Co., in his last annual report, makes the following sensible remarks: "The general increase in the salaries of teachers is shown in the increased amounts paid yearly for that purpose, the increase having been steady for a number of years past; but this is not so apparent in individual cases. It is greatly to be regretted that there is not a more general disposition on the part of trustees to secure teachers whose services it will be desirable for them to retain. There is almost an incalculable amount of organizing skill and teaching effort wasted yearly from the frequent changes made in teachers. In some school sections, a year seems to be the utmost limit of a teacher's stay, and a change at the beginning of the year to be regarded almost as a matter of course, the dismissals in some cases, too, seem to be owing more to little personal antipathies felt by persons in the section on quite other grounds than that of inefficiency in the school room; in other cases, a change is made apparently with the conviction that the saving of two or three dollars monthly in the hiring of the new teacher is a move in the direction of economy and of the true interest of the school; and yet none will dispute the proposition that a teacher's first year in a school is his least useful one, and that each succeeding year largely increases his efficiency unless he is naturally unfitted for his work. It is encouraging to mark, however, that an increasing number of school sections are beginning to see the unsoundness of this course, and to adopt a better rule in the engagement of their teachers; but until a change of teacher for any cause but inefficiency is regarded as a misfortune and not as a mere incident, we must continue to deplore the evil results that flow from this practice."

## QUEBEC.

Owing to the many questions connected with stocks, capital, trade and commerce generally, some of the Quebec newspapers regret that political economy is not taught more in our schools and colleges. The complexity of the details in the arrangement of the new tariff is said to be making custom house officers regret the defects of early education in some important particulars.

Professors Weir and Emberson have completed their tour of inspection. The report of the state of the model schools and academies will be looked for with interest, as this is the second inspection, and it will be possible for the inspectors to institute some sort of comparison, showing how much particular schools have improved or deteriorated since last inspection. It is a great pity that such matters of vital importance are not noticed in some way by the public press of the Province. Judging from the silence of the press, one might imagine either that our educational system was perfect, and therefore needed no discussion, or that it was utterly unimportant, and therefore deserved no discussion. Educational matters are duller than usual, owing to the non-appearance of the Chief Superintendent's report at the usual time.

The school examinations of McGill University for Certificates of the University, and the title of Associate in Arts, are held this year in Montreal, commencing May 19th. Local centres may be appointed elsewhere on application to the Principal of the University, accompanied with satisfactory guarantees for the payment of the necessary expenses. The examinations are open to boys or girls under 18 years of age, from any Canadian school. The subjects are divided into two classes: (1.) Preliminary, in which every candidate must pass; (2.) Optional, in which the candidate may have a choice. The preliminary subjects are English reading, dictation, grammar (Morell or Smith), arithmetic, geography (the Continents and British North America), Collier's British History and Jeffers' Canadian History, and the four Gospels, unless objection is made thereto. No candidate can pass unless he shall have obtained at least one-third of the total number of marks in each subject, and two-thirds in Reading and Dictation. The optional subject are divided into four groups—(a) Language. (b) Mathematics and Natural Philosophy. (c) English. (d) Natural Science. Under the head of languages are included—(1.) Latin, embracing Grammar, Cæsar's *Bellum Britannicum*, Cicero's *Pro Archia* and Virgil's *Eclogues*, i. iv. vi. vii. ix. (2.) Greek, embracing Grammar, Homer's *Iliad*, Book vi. and Xenophon's *Anabasis*, Book ii. (3.) French, embracing Grammar, Extracts from Moliere in Daisey's French Reader, and translation into French of chaps. 1 and 2 of the Vicar of Wakefield. (4.) German, embracing Grammar, Adler's Reader, sec. 2, and translation from German into English. Under the head of Mathematics and Natural Philosophy are included—(1.) Geometry, Euclid, i. ii. iii. (2.) Algebra, including Simple Equations. (3.) Plain Trigonometry, including the solution of Right-angled Triangles. (4.) Mechanics and Hydrostatics. Under the head of English are included—(1.) Language, Smith's Grammar, Peel's Primer, and Trench's Study of Words. (2.) Literature, Brooke's Primer; Scott's *Lady of the Lake*, and Milton's *P. L.*, P. R., 1 and 2. (3.) History, Primers of Greece and Rome, Collier's Great Events. (4.) Geography, Physical, Political and Commercial. Under the head of Natural Science are included—(1.) Zoology, Nicholson's Introductory Text-Book. (2.) Botany, Gray's First Lessons. (3.) Geology, Dana's Text-Book. (4.) Chemistry, Miller's Inorganic Chemistry. Every candidate must pass in at least one and not more than three subjects in each of the Optional Sections. Under the Mathematical Section candidates may take as a subject Geometrical and Freehand Drawing. In order to pass in an optional subject, at least one-fourth of the total number of marks must be obtained. Junior and Senior certificates are awarded as the result of the examination. Boys obtaining a Senior Certificate are termed Associate in Arts of the University. Those who pass in Latin, Greek, English, Algebra, Geometry, will be considered as having matriculated in the Faculty of Arts. The examination is held in the William Molson Hall, commencing each day at 9 o'clock. The entrance fee is \$4, payable to the Secretary of the University.

The University has also issued regulations for the higher examination of women. Women over 16 years of age, who have already received the senior or junior certificates of the University, or who present certificates of education and examination accepted as equivalents by the examiners, may enter on these examinations, and on passing shall be entitled to certificates as senior Associates in Arts. These examinations will be held at the same time and in

the same manner as these for school certificates, and local centres may be established on similar conditions. The fee is \$8. The imperative subjects are Latin or Greek, with History; Mathematics; Logic and English; in addition to which one optional subject must be taken, selected from a specified list.

## NOVA SCOTIA.

W. D. McKenzie, Esq., of Painsboro, has been appointed Inspector of Schools for the County of Cumberland. The new Inspector has had a very successful experience as Teacher in the public schools, and was for several years Principal of the County Academy at Amherst. He holds a first-class Common School License, Academic License (highest attainable in Nova Scotia), and Normal School Certificates.

The report of the Superintendent of Education, for the year 1878, has been presented to both branches of the Legislature. The Superintendent directs attention to "the gratifying evidence furnished by its various tables, summaries, comparisons and supplementary reports, of the intelligent and vigorous support given by the people, as a whole, to the cause of popular education." We learn from the report that during the winter term there were 1,812 schools in operation; and during the summer term, 1,915; the respective increases over the preceding year being 81 and 44. The number of different pupils registered during the school term was 101,538, or one in 3.8 of the population of the Province according to the census of 1871. The Province paid directly to teachers of public schools, according to the several grades of license held, \$150,455.97. The teachers received in addition from the people, through the trustees, \$302,150.93. The whole amount from the Provincial Treasury expended for Common Schools, Academic and Collegiate education was \$208,114.91. Besides explanatory notes regarding school statistics, expenditure and kindred matters, the report treats at length of Intermediate Education, the Provincial Normal School and the Examination of Candidates for Teachers' Licenses. It also suggests certain modifications of the School Law as desirable.

The *Lunenburg Progress* devotes a column each week to local matters of interest connected with the cause of education. These educational memoranda impress the reader favorably as to the vitality and vigor of the schools of the town, which are under the excellent superintendence of E. H. Owen, Esq. (A.M. of King's).

It is reported that R. Benoit, Esq., Inspector of Schools for the County of Richmond, is about to resign his office in consequence of having received an important Dominion appointment.

The County Academy at Amherst possesses an excellent working cabinet, comprising classified and catalogued specimens of the principal minerals of the Dominion. The collection has received large additions of late through donations from the Geological Survey Department of Canada, and A. J. Hill, Esq., C. E. The Principal of the Academy, A. H. Eaton, Esq. (A.M. of Acadia and Harvard), is an enthusiastic naturalist.

## MANITOBA.

Quarterly meetings of the Board of Education and of the University Council were held on the first Thursday in March. The committee on legislation laid before the Board of Education the results of their labors in the shape of a draft bill, embodying the consolidation of all the School Acts of the Province, together with such new matter as it was thought necessary to introduce. The committee were unanimous in wishing, by the judicious arrangement of clauses under their proper headings, to make the Act as intelligible as possible, and, by the introduction of such new clauses as seemed necessary, to obviate the necessity of constant tinkering. One of the chief new features is the power proposed to be conferred on each section of the Board of Education, to divide the province into inspectorial districts, to change the same from time to time, to appoint inspectors, to define their duties, and to provide for their remuneration. The draft bill was referred to each section of the Board of Education for its consideration, and the meeting adjourned to the last Thursday in March, when any suggestions that may be made by the sections will be considered.

The new education offices near the City Hall are to be ready for occupation in a few weeks. Up to the present time there have been no public offices, the Superintendents doing their correspondence in their own private rooms, and the meetings being held sometimes in the Council Chamber and sometimes in the Court House. The new offices consist of a suite of five rooms, one for each of the Superintendents, one for the Registrar of the University, one for



the caretaker, and one large room for meetings, examinations, &c. The estimated expenditure in connection with the Protestant public schools of the city of Winnipeg for the current year is \$10,000.

It is likely that a Provincial Teachers' Association will be formed during the coming summer.

Mr. A. C. Killam, gold medallist of Toronto University, has been placed on the Board of Examiners, and Mr J. Robertson and the Superintendent have been re-elected Chairman and Secretary.

The following are the officers of the Historical and Scientific Society:—President, Chief Justice Wood; 1st Vice-president, Dr. Cowan; 2nd Vice-president, Ald. McArthur; Corresponding Secretary, Prof. Bryce; Recording Secretary, Alex. Begg; Treasurer, S. R. Parsons; Executive Council, Rev. Canon Grisdale, D. Codd, A. H. Whitcher, J. H. Rowan, E. W. Jarvis, J. F. Bain, James Stewart, Hon. John Norquay, and Hon. Joseph Royal. At the first public meeting of the society held on 13th March, Captain William Kennedy, an active explorer, read a most interesting paper on the North-west Passage.

### Readings and Recitations.

#### "BAY BILLY."

'Twas the last fight at Fredericksburg—  
Perhaps the day you reek,  
Our boys, the Twenty-Second Maine,  
Kept Early's men in check.  
Just where Wade Hampton boomed away  
The fight went neck and neck.

All day we held the weaker wing,  
And held it with a will;  
Five several stubborn times we charged  
The battery on the hill,  
And five times beaten back, re-formed,  
And kept our columns still.

At last from out the centre fight  
Spurred up a General's Aid.  
"That battery *must* silenced be!"  
He cried, as past he sped  
Our Colonel simply touched his cap,  
And then, with measured tread,

To lead the crouching line once more  
The grand old fellow came;  
No wounded man but raised his head  
And strove to gasp his name,  
And those who could not speak nor stir,  
"God blessed him" just the same—

For he was all the world to us,  
That hero gray and grim;  
Right well he knew that fearful slope  
We'd climb with none but him,  
Though while his white head led the way  
We'd charge hell's portals in.

This time we were not half way up,  
When, midst the storm of shell,  
Our leader, with his sword upraised,  
Beneath our bay'nets fell.  
And as we bore him back, the foe  
Set up a joyous yell.

Our hearts went with him. Back we swept,  
And when the bugle said  
"Up, charge again!" no man was there  
But hung his dogged head.  
"We've no one left to lead us now,"  
The sullen soldiers said.

Just then, before the laggard line  
The Colonel's horse we spied—  
Bay Billy with his trappings on,  
His nostril swelling wide,  
As though still on his gallant back  
The master sat astride.

Right royally he took the place  
That was of old his wont,

And with a neigh, he seemed to say  
Above the battle's brunt,  
"How can the Twenty-Second charge  
If I am not in front?"

Like statues we stood rooted there,  
And gazed a little space;  
Above that floating mane we missed  
The dear familiar face;  
But we saw Bay Billy's eye of fire,  
And it gave us heart of grace.

No bugle call could rouse us all  
As that brave sight had done;  
Down all the battered line we felt  
A lightning impulse run;  
Up, up the hill we followed Bill,  
And captured every gun!

And when upon the conquered height  
Died out the battle's hum,  
Vainly 'mid living and the dead  
We sought our leader dumb;  
It seemed as if a spectre steed  
To win that day had come.

At last the morning broke. The lark  
Sang in the merry skies  
As if to e'en the sleepers there  
It said awake, arise!  
Though naught but that last trump of all  
Could ope their heavy eyes.

And then once more, with banners gay,  
Stretched out the long brigade;  
Trimly upon the furrowed field  
The troops stood on parade.  
And bravely 'mid the ranks were closed  
The gaps the fight had made.

Not half the Twenty-Second's men  
Were in their place that morn,  
And Corp'ral Dick, who yester-noon  
Stood six brave fellows on,  
Now touched my elbow in the ranks,  
For all between were gone.

Ah! who forgets that dreary hour  
When, as with misty eyes,  
To call the old familiar roll  
The solemn Sergeant tries—  
One feels that thumping of the heart  
As no prompt voice replies.

And as in falt'ring tone and slow  
The last few names were said,  
Across the field some missing horse  
Toiled up with weary tread.  
It caught the Sergeant's eye, and quick  
Bay Billy's name was read.

Yes! there the old bay hero stood,  
All safe from battle's harms,  
And ere an order could be heard,  
Or the bugle's quick alarms,  
Down all the front, from end to end,  
The troops presented arms!

Not all the shoulder-straps on earth  
Could still our mighty cheer.  
And ever from that famous day,  
When rang the roll-call clear,  
Bay Billy's name was read, and then  
The whole line answered "Here!"

—Frank H. Cassaway.

#### THE OLD MAN GOES TO SCHOOL.

I know I'm too old to learn, wife; my lessons and tasks are done,  
The dews of life's evening glisten in the light of life's setting sun.  
To the grave by the side of my fathers they'll carry me soon away;  
But I wanted to see how the world has grown, so I hobbled to school  
to-day.

I could not have told 'twas a school house, it towered up to the skies.  
I gazed on the noble structure 'till dimmer grew these old eyes.  
My thoughts went back to the log-house—the school-house of years ago,  
Where I studded and romped with the merry boys who sleep where the  
daisies grow.

I was startled out of my dreaming by the tones of its monster bell,  
On these ears that are growing deaf the sweet notes rose and fell.  
I entered the massive door, and sat in the proffered chair—  
An old man wrinkled and gray in the midst of the young and fair.

Like a garden of blooming roses, the school-room appeared to me—  
The children were all so tidy, their faces so full of glee;  
They stared at me when I entered, then broke through the whispering  
rule,  
And said, with a smile to each other, "The old man's coming to school."

When the country here was new, wife, and I was a scholar lad,  
Our reading, writing, and spelling were about all the studies we had;  
We cleared up the farm through the summer, then travelled through  
woods and snow  
To the log-house in the opening—the school-house of years ago.

Now, boys go to school in palaces, and study hard Latin and Greek;  
They are taught to write scholarly essays; and drilled on the stage to  
speak;  
They go into the district hopper, but come out through the college spout;  
And this is the way the schools of our land are grinding our great men  
out.

Let them grind! let them grind, dear wife! the world needs the good  
and true;  
Let the children out of the old house, and welcome them into the new,  
I'll cheerfully pay my taxes, and say to the age of mind,  
All aboard! all aboard! go ahead, and leave the old man behind!

Our system of public schools is the nation's glory and crown;  
May the arm be palsied, ever, that is lifted to tear it down.  
If bigots cannot endure the light of our glowing skies,  
Let them go to oppression's shores, where liberty bleeds and dies.

I'm glad I have been to-day to the new house so large and grand;  
With pride I think of my toils in this liberty-loving land,  
I've seen a palace arise where the old school-house stood,  
And gardens of beauty bloom where the shadows fell in the wood.

To the grave by the side of my fathers they'll carry me soon away;  
Then I'll go to a higher school than the one I've seen to-day;  
Where the Master of Masters teacheth—where the scholars never grow  
old—  
From glory to glory I'll climb, in the beautiful college of gold.

A gentleman, prominent in educational circles, sends us the following.  
Is has the genuine ring and spirit of the English public school of the  
better class. It would make a splendid chorus for a boys' school, sung  
to the tune of "The Right Little, Tight Little Island."

#### ADVICE TO BOYS.

Whatever you are, be brave, boys!  
The liar's a coward and slave, boys:  
Though clever at ruses  
And sharp at excuses,  
He's a sneaking and pitiful huave, boys.

Whatever you are, be frank, boys;  
'Tis better than money and rank, boys:  
Still cleave to the right;  
Be lovers of light;  
Be open, above-board, and frank, boys.

Whatever you are, be kind, boys!  
Be gentle in manner and mind, boys:  
The man gentle in mien,  
Words, and temper, I ween,  
Is the gentleman truly refined, boys.

But whatever you are, be true, boys!  
Be visible through and through, boys:  
Leave to others the shamming,  
The "greening" and "cramming";  
In fun and in earnest be true, boys.

#### Science Notes.

The *Sanitary Record* reports a case in which a family were poisoned from eating mouldy bread. A pudding was made from scraps of bread which had been about three weeks accumulating, and from eating it one adult and one child died. A chemical analysis was made, and the reactions indicated the presence of ergot, a poisonous fungus.

*Electric Telegraphy without Wires.*—Professor Loomis continues his experiments in the mountains of West Virginia, to demonstrate his theory that at certain elevations there is a natural electric current, by taking advantage of which telegraphic messages may be sent without the means of wires. It is said that he has telegraphed as far as eleven miles by means of kites flying with copper wires. When the kites reached the same altitude, or got into the same current, communication by means of an instrument similar to the Morse instrument was easy, but ceased as soon as one of the kites was lowered. He has built towers on two hills about twenty miles apart, and from the tops of them has run up steel rods into the region of the electric current.—*New England Journal*.

*New Method to make Fabrics Waterproof.*—By this new process woven fabrics are rendered impermeable to water without affecting the color or impeding the free passage of the air. Immerse the cloth in a bath composed of water, acetate of alumina, and Iceland moss. The latter article is just boiled in the water, and the acetate of alumina added. Allow the fabric to remain in the solution two or three hours, and carefully dry.

*The Independence of Science.*—We have among us a small cohort of social regenerators—men of high thought and aspirations—who would place the operations of the scientific mind under the control of a hierarchy which should dictate to the man of science the course that he ought to pursue. How this hierarchy is to get its wisdom they do not explain. They decry and denounce scientific theories; they scorn all reference to ether, and atoms, and molecules, as subjects lying far apart from the world's needs; and yet such ultra-sensible conceptions are often the spur to the greatest discoveries. The source, in fact, from which the true natural philosopher derives inspiration and unifying power is essentially ideal. Faraday lived in this ideal world. Nearly half a century ago, when he first obtained a spark from a magnet, an Oxford don expressed regret that such a discovery should have been made, as it placed a new and facile implement in the hands of the incendiary. To regret, a Comtist hierarchy would have probably added repression, sending Faraday back to his bookbinder's bench as a more dignified and practical sphere of action than peddling with a magnet. And yet it is Faraday's spark which now shines upon our coasts, and promises to illuminate our streets, halls, quays, squares, warehouses, and, perhaps at no distant day, our homes.—PROFESSOR TYNDALL, on "The Electric Light," in *Popular Science Monthly* for March.

#### 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.

HALTON.—The teachers of the county of Halton held their half-yearly meeting at Georgetown on Feb. 27 and 28 and March 1. The President delivered the opening address: "Elements of Success in Teaching." Geometry was very fairly treated by N. J. Wellwood, B. A., of Oakville H. S. An address on the systems of school work in Ontario and Quebec, by Rev. J. Pringle, of Georgetown, was listened to with interest. J. M. Buchan, M.A., H.S.I., spoke on Grammatical Analysis and English literature. His method of teaching, as outlined, is natural and interesting. He delivered his lecture on "Poetry and Politics" in the evening.

On Friday morning Mr. Moore gave a detailed account of his method of teaching composition. This provoked a good deal of discussion. P. McLean, H. M., M. S., Milton, read a paper on "Professional Study and Course of Reading." D. J. McKinnon, Inspector for Peel, addressed the convention on "Moral Training in the Public Schools." Prof. Young delivered his very excellent lecture on "The True Relation of Psychology to Education," which was listened to with deep interest by all who heard him. Dr. McLellan occupied the Town Hall in the evening with "This Canada of Ours." He delighted a crowded house of over four hundred for nearly an hour and a half. The doctor gave several useful hints on Algebra next morning.

Officers elected: R. Little, President; Dr. Lusk, Vice-President; R. Coates, Secy.; Managing Committee, Messrs. Moore, Husband, Cameron, Malcolm and McKay. About 80 teachers were present out of less than 90 in the county. Next meeting will be held at Burlington in September.  
R. COATES, Secy.

### REVIEWS.

**DIALOGUES AND CONVERSATIONS.**—By *Emily S. Oakley*. A. S. Barnes & Co., New York; 75 cents. The dialogues are fifteen in number, and are all original. They are designed for school work more than public entertainments. They are all educative in some sense. Some of them might, with the introduction of music, be made to suit for public rehearsal. The conversations relate to composition, and give excellent instructions on the subject in a pleasing manner.

**READING AS A FINE ART.**—Boston: Roberts Bros., 50 cents. This little book is translated from the French of Ernest Legouvé. It is a remarkable book, written in a most attractive style. It is as entertaining as a novel, and yet a most profound treatise. The part devoted to "Reading made Eloquent in Poetry and Prose," is simply grand; full of beauty and replete with suggestions. He who thinks he has caught all the author's meaning in one reading will be astounded as well as delighted by a second and more careful study of its pages.

**BOOK-KEEPING BY DOUBLE ENTRY.**—By *Thomas Richard Johnson*. Dawson Bros., Montreal. This little book is intended to illustrate, by a single set, the ordinary style of keeping books by double entry. While this may be sufficient to exemplify the principles that underlie the system, to an adult familiar with accounts it is altogether too meagre for a text-book on the subject. The binding and typography are exceedingly well executed.

**THE RIGHT USE OF BOOKS.**—Boston: Roberts Bros.; 50 cents. This is a lecture delivered by W. P. Atkinson, Professor of English and History in the Massachusetts Institute of Technology. It is full of most excellent advice and suggestions. It is just the book for a young man or woman to read. The reading of the people is as great a dissipation as their fashionable parties. The after-school education of the race is one of the greatest educational problems of the age, and this is the best primer on the subject that we have seen.

**GRUBE'S METHOD.**—Chicago: *Vaile & Winchell*. This is an outline of Grube's method of giving elementary instruction in Arithmetic, by Louis Soldan, Principal of St. Louis Normal School. The explanations are very clear, and intelligent teachers could not fail to receive many useful hints in reading it. A selection from it appears in the Practical Department of this number of the JOURNAL.

**WHITE'S SCHOOL SERIES OF INDUSTRIAL DRAWING.**—Iverson, Blakeman, Taylor & Co., New York and Chicago. This series is prepared by H. P. Smith (not Walter Smith), teacher of drawing in New York City. The books are admirably graded. The exercises are very carefully selected. The rough practice books are a feature in the system. They are dotted in squares. Conventionalization of natural forms is clearly illustrated and explained. Teachers interested in the subject will receive valuable assistance from these books.

**MONROE'S READING PRIMER AND CHARTS.**—Copperthwaite & Co., Philadelphia. Prof. Monroe, Dean of the Boston School of Oratory, is known to be an authority in the higher departments of elocution. His Charts and Primer show that he has devoted very great care to the fundamental parts of the study as well. The Primer is adapted to any method of teaching reading, but it is especially pre-

pared for the Phonic method. There are only a few silent letters in the book, and they are printed with *outline type*. Every sound has a lesson for itself. Some difference of opinion may be entertained as to the order in which the sounds are presented, but on the whole the series is arranged on a more philosophical basis than any we have seen. The same publishers are issuing a cheap manual for primary teachers, and, judging from the most practical character of the suggestions to teachers at the foot of the Chart, it should have a large sale among teachers. It is prepared by Professor Monroe.

**FOURTEEN WEEKS IN BOTANY**—By *Alphonso Wood, A.M., and J. D. Steel, Ph. D.* A. S. Barnes & Co., New York, \$1.25. This work is an excellent introduction to the study of Botany. The method pursued is to introduce the pupil at once to the study of the plant itself, by means of elaborate illustrations and living specimens. Through an acquaintance with about one hundred representative plants which are explained and illustrated, the pupil is gradually led to a knowledge of the principles of the subject. The illustrations, typography, material and binding do credit to the publishers.

### MAGAZINES FOR APRIL.

**SCRIBNER'S MONTHLY.** The best articles are, "John Ericsson," giving a detailed account of his inventions, finely illustrated; "The Tendency of Modern Thought, as seen in Romanism and Rationalism; The Measure of a Man; and Actors and Actresses of New York." The stories are good; "Haworths," by Mrs. Burnet, is developing finely.

**ST. NICHOLAS.** The best of the year so far. "Little Housemaids" gives a charming account of the delightful home for little street girls in New York. Thirteen illustrations are given, showing the happy little things at work or at play. "Spilling the Bombshell" tells of the bravery of a British boy in a sea fight. Three beautiful pictures of Milton are given in an article on the great poet. Thomas Hughes contributes a story for boys.

**THE ATLANTIC MONTHLY.** Easter Hymns from Old Cloisters; New Lines of the Old Masters; A Workingman's Word on Over-production; Living in London, and The New Plan for Women's Education at Harvard; with the ever excellent "Contributors' Club." Literary notices and numerous other articles, make up a good number.

**THE DAY OF REST.** Strachan & Co., London. A very interesting monthly, suitable for Sunday reading. It contains stories, sketches, practical and scientific articles. In fact it is a storehouse of useful and entertaining information.

**PEEP-SHOW.** This is a magazine for little folks, published by Strachan & Co. It is the English cousin of St. Nicholas. We wish the teachers of adjoining school sections throughout Canada would form partnerships of two members and subscribe for St. Nicholas and Peep-show, for the purpose of obtaining the best possible kind of readings for their schools.

**THE WESTERN.** St. Louis: G. J. Jones & Co. March and April. A good companion for its eastern friend, *The Atlantic*. The writing is all very high class. Teachers will find great profit in reading in the present number: Poetry as an Art; The Literary Movement in the time of Charles the Great; The Intellect in Music; and Involution and Evolution.

**POPULAR SCIENCE MONTHLY,** March. Appleton & Co., New York. \$4.00 per annum. This is a number of unusual interest to teachers. "The First Three years of childhood," by M. Bernard Penez, discusses the mental development of children under three years of age. Lockyer's great article on "The Chemical Elements," and Tyndall's on the "Electric Light," are also very valuable. The Literary Notices, Popular Miscellany and Science Notes are all worthy of careful study. Perhaps no single magazine will so fully keep teachers abreast with the times, and they would do well to get the March number as a sample copy.

**THE PRIMITIVE METHODIST MAGAZINE,** London, Eng., John Dickenson, publisher. This is a large illustrated monthly, one of the very best religious magazines of England.

**THE MUSICAL TIMES.** Novello, Ewer & Co. Lovers of music should get the March number of this monthly. Good music, admirable articles, biographical sketches, musical news, &c. It must be a monthly feast to musicians.

—It is said that the very centre of the earth is the only spot where one can be merry all the time, and the reason is, as science tells us, everything here loses its gravity.

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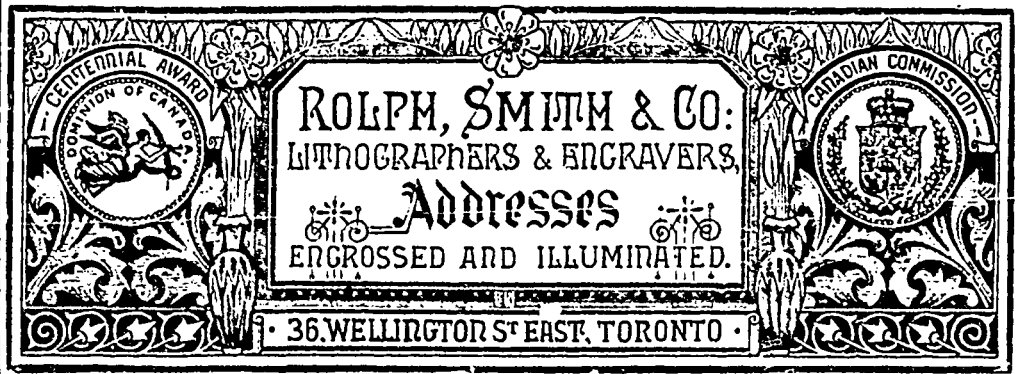
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