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CANADA SCHOOL JOURNAL HAS RECEIVED

*An Honorable Mention at Paris Exhibition, 1878.
Recommended by the Minister of Education for Ontario.
Recommended by the Council of Public Instruction, Quebec.
Recommended by Chief Superintendent of Education, New Brunswick.
Recommended by Chief Superintendent of Education, Nova Scotia.
Recommended by Chief Superintendent of Education, British Columbia.
Recommended by Chief Superintendent of Education, Manitoba.*

The Publishers frequently receive letters from their friends complaining of the non-receipt of the JOURNAL. In explanation they would state, as subscriptions are necessarily payable in advance, the mailing clerks have instructions to discontinue the paper when a subscription expires. The clerks are, of course, unable to make any distinction in a list containing names from all parts of the United States and Canada.

SCHOOL MATTERS IN THE ONTARIO LEGISLATURE.

It is not expected that any important changes will be made in the school law during the present session. Two or three members of the House have, however, introduced amendments concerning details in the working of the law. The one that most concerns teachers was introduced by Mr. Watters, of North Middlesex, and provides for the reduction of the summer holidays from six to three weeks. Several members spoke in favor of the amendment. It is unfortunate that in a Local Legislature there are always a number of members who seem to pride themselves on showing that they never had the opportunity of acquiring liberal and enlightened views concerning educational matters. It was pleasing to notice the fact that one at least of the new members holds views in accordance with those of intelligent educators and social science reformers in all civilized countries, and is able to express them in an able and decided manner. Dr. McLaughlin, of West Durham, showed that the number of cases of brain fever and other brain affections in children under twelve years of age was frightfully on the increase, and proved very clearly that compelling *little* children (the class for whom the advocates of the proposed amendment were specially pleading) to go long distances in the hot sun and sit in close, musty school-rooms studying all day, must have an injurious effects on their mental and physical natures.

Hon. Mr. Crooks showed that the number of school days in Ontario was more than in England or the United States, but promised to deal with the matter, if necessary, in a Bill which he proposes to introduce. There is one question to which we would respectfully direct his attention. In the 29th clause of his Bill of last session no distinction was made between the erection of a *new* school-house to take the place

of an old one, and the providing of necessary additional accommodation. We think a distinction might be clearly and simply made which would remove the anomaly of holding the trustees personally responsible for providing accommodation for the pupils seeking admission, and yet directly crippling them in their efforts to do so.

The School Book question was brought before the House by an enquiry by Mr. Baxter. The Minister of Education explained his duty to be to see that the public is supplied with text books of the highest merit and best mechanical construction at the lowest possible prices.

When Mr. Crooks assumed his present position, he found the policy of the old Council of Public Instruction with regard to the authorization of Text books to be surrounded with many difficulties in its practical working. He at once entered upon a careful investigation of the departmental, commercial, and public aspects of the question, and was led to the conclusion that he had two clear duties to perform; First, to authorize the best possible books in the different subjects, and second, to have them sold at the lowest possible prices, provided that they should always be printed and bound in accordance with departmental regulations. A carefully selected list of books was authorized, and the policy adopted resulted in the production of the best school books ever published in Canada. There is no comparison between the mechanical execution of the books of to-day and those of five years ago. In some cases there may yet be room for improvement, but Mr. Crooks only requires to persevere in the course he has adopted, to ensure in a short time a series of text-books of which any country might feel justly proud.

The clearest proof that the books selected by Mr. Crooks possesses genuine merit, both as to cheapness and contents, is found in the facts that they have to a large extent supplanted those formerly in use, and that most of them have recently been adopted in the other provinces of the Dominion in which changes have taken place.

THE UNIVERSITY OF HALIFAX.

The report of the Registrar of the above University for the year 1879 contains the following summary: "Seven examinations were held during the past year, attended by 25 candidates, of whom 17 passed and 8 were rejected. Up to this time 57 candidates have been examined, 40 of whom have passed, the nature of the examination and the standard of attainment required of candidates accounting for the large number of rejections. Every one of the affiliated colleges, with the single exception of Acadia, have sent up candidates to one or more of the examinations, and Pictou Academy and Halifax High School have both successfully prepared candidates for matriculation. The support of the colleges is making itself more felt

each year as the advantages of free and fair competition between the students of the various institutions are becoming more generally recognized.

Our Nova Scotia notes for this month furnish a tolerably complete report of the proceedings of the Senate of the University at its recent annual Session. From these sources of information we gather that the University, if not meeting the anticipations of its more sanguine promoters, is nevertheless developing with reasonable rapidity, and has fair prospects of ultimate success. As the Senate is chiefly composed of representatives of the affiliated colleges, the indirect benefits accruing to the cause of higher education from the friction of mind on mind must be very considerable. Without at all entering upon the vexed questions of large against small, or State against Denominational Colleges, we think none can dispute the fact that in small, isolated institutions such as the College of Nova Scotia, there is an inevitable tendency towards narrowness of vision and monotony of procedure. By bringing together, in frank educational conference, the Faculties of the several Colleges of the Province, the University has supplied a force which will materially strengthen the power of resisting such tendency. So far as this point is concerned, the University Act may be considered to be in the direct interest of the Colleges, as tending to promote their efficiency. As to its effect in an external unification of higher training in the Province, we could pronounce more definitely than we can do now, had the Colleges been required to hold their degree-conferring powers in abeyance as a condition of affiliation, or had they voluntarily consented to such abnegation of chartered rights. Under existing circumstances, we can only await the issue of the experiment with great interest.

UNIVERSITY REFORM.

Before long, if not during the present session, an effort will be made by the management of the University of Toronto and of University College to induce the Legislature to make additions to the revenue of these institutions. As to the course which the Legislature ought to take in dealing with such an application it will be time enough to express an opinion when the grounds on which it is based are made public, but even at this stage of the agitation it is proper to say that no such application is likely to be very successful until the public are made thoroughly acquainted with the state of the University endowment.

It is one of the educational anomalies of the day that the proceedings of the University Senate are withheld almost entirely from the public view. There is not another trust of so great importance, either financially or educationally, in the Province, and, strange to say, about this most important one of all the public know literally nothing. Nor do the graduates themselves know much more. Some of them are members of Senate, and many of them are members of Convocation, but the Senate proceedings are secret and Convocation never meets for the transaction of business. We do not wish to be regarded as insinuating bad management of the trust, much less positive

wrong-doing; but at the same time we take the liberty of warning all parties interested that in order to make the University and College as popular as they ought to be the Senate meetings must be thrown open to the public.

There is another matter which comes up in this connection, and which is entitled to attention on quite other grounds. This is the expediency of making certain changes in the course of study in University College. The change most needed just now is to shorten that course by cutting off the first year altogether. This would make the College more efficient by enabling the professors and tutors to devote themselves more exclusively to advanced instead of elementary work. There is not, and never has been, enough of teaching done in that institution, and one great reason for this defect has been the want of time on the part of the teachers. The work of the first year in the College is purely elementary, and can be done not merely as well, but very much better, in the High Schools of the Province. Once—and that not many years ago—this assertion could not have been made, but during the past few years a great revolution has been wrought in the condition of the High Schools and the character of the work they do. The teaching of classics, mathematics, English, French and German—and these cover the whole ground of first year work in University College—can be more efficiently performed up to a certain point in a good High School than in any college; and we have no hesitation in affirming that that point is at least as high as the upper limit of the present High School programme. The "Upper School" work in High Schools coincides pretty closely with the first year course in the College, and the schools would be as much benefitted by having this work to do as the college would be benefitted by being relieved of it. Every High School master wants to keep his pupils as long as he can, and he certainly should be allowed to keep them through the whole course where his doing so is quite compatible with the interest at once of the pupils and the public.

THE SPECIAL GRANT TO COLLEGIATE INSTITUTES.

"Head Master's" criticism of the basis on which a special grant of \$750 is made to each Collegiate Institute will, we have reason to believe, meet with the approval of the great majority of High School masters. The condition which discriminates in favor of the Collegiate Institutes is, as "Head Master" affirms, a part of the old system; it is based upon wrong principles and is attended with unsatisfactory results. If the Latin test is to be retained, "Head Master" is probably right in recommending the reduction of the average number from sixty to forty, and the introduction of certain other conditions, especially that of insisting on a certain average attendance of "Upper School" pupils. Doubtless the evils of the present system have not escaped the attention of the Minister of Education; but whether he will feel inclined to meddle with what the Collegiate supporters may warrantably claim as "vested rights," is another question. It would, perhaps, be inexpedient to withdraw the special grant to the Institutes; but certainly something should be done for those excellent schools, several of which, as "Head

Master" says, are superior to some of the Institutes, and on a par with the best of them. If the Legislative grant for High School purposes were increased, the increase might be so apportioned as to materially benefit those schools, which in all but the unsatisfactory *Latin* test are the equals of the Institutes.

ANNUAL REPORT OF THE MINISTER OF EDUCATION.

The Annual Report of the Hon. Mr. Crooks for 1878 was laid before the Legislature on January 15th. It is not quite so large a volume as some of its predecessors, but it contains fully as much valuable information regarding all grades and classes of the schools of Ontario. There are some who complain because the report for 1878 is not brought down until 1880. This is quite as early as possible, however. It must be remembered that the reports from Trustees and Inspectors for 1879 were not all sent in to the Department at the time Mr. Crooks presented his report for 1878. In some States the school year ends at Midsummer, and the Annual Reports presented to Legislatures can thus be brought down to within six months of their date of issue. There is some reason for such a course, too, in the fact that the long vacation then separates the two school years.

The following are selections from the summaries in the Minister's Report:

I.—RECEIPTS AND EXPENDITURE OF PUBLIC SCHOOL MONIES.

The Receipts.

1. The amount apportioned from the legislative grant was \$253,538—increase, \$6,576. The apportionment is made to the several counties, townships, cities, towns and incorporated villages, according to the ratio of the population in each, as compared with the whole population of the province. The principle of distribution is according to the average attendance and the time of keeping open the schools, public and separate, in each municipality.
2. The amount apportioned from the legislative grant (through the Educational Depository) for the purchase of maps, apparatus, prize and library books was \$15,756—decrease, \$2,347.
3. The amount from county municipal assessment was \$872,354, showing an increase of \$14,049.
4. The amount available from trustees' school assessment was \$1,405,686—decrease, \$158,439.
5. The amount from Clergy Reserves moneys, and from other sources, applied to school purposes in 1878, was \$694,984—decrease, \$35,702.
6. The total receipts for all public school purposes for the year 1878 amounted to \$3,247,321, showing a decrease of \$175,863 over the total receipts of the preceding year.

The Expenditure.

1. The amount paid by trustees for salaries of teachers in 1878 was \$2,011,207—decrease, \$26,891.
2. For maps, globes, prize books and libraries, \$42,507—decrease, \$5,032. The legislative aid given to trustees (through the Educational Depository) for these objects was \$15,756.
3. For sites and building of school-houses, \$413,392—decrease, \$64,000. For several years after the passage of the School Act of 1871, a large amount was yearly expended in the erection of new school houses, so that the country is tolerably well supplied with them. A decrease of this item may therefore be expected for some years to come.
4. For rent and repairs of school-houses, &c., \$422,239—decrease, \$88,213.
5. Total expenditure for all public school purposes, \$2,889,347—decrease, \$184,142.
6. Balance of school moneys not paid at the end of the year when the returns were made, \$357,974—increase, \$8,278.

II.—SCHOOL POPULATION, AGES OF PUPILS, PUPILS ATTENDING PUBLIC SCHOOLS, AVERAGE ATTENDANCE.

The Statute requires that the trustees' returns of school population shall include the entire number of children resident in their school division; and it confers the equal right of attending the schools upon all residents in such divisions between the ages of five and twenty-one years.

1. The school population (comprising only children between the ages of five and sixteen years) reported by trustees was 492,360—decrease, 2,444.
2. The number of pupils between the ages of five and sixteen years attending the schools was 467,438—decrease, 1,808. Number of pupils of other ages attending the schools, 21,582—decrease, 37. Total number of pupils attending the schools, 489,015—decrease, 1,845.
3. The number of boys attending the schools, 260,400—decrease, 670. The number of girls attending the schools, 228,615—decrease, 1,175.
4. The number reported as not attending any school for four months during the year is 27,415—increase, 1,441. These were between the ages of seven and twelve years, during which school boards and trustees are required by the Public Schools Act to see that all the children in their school districts attend school for four months in the year.
5. The average attendance, viz., the aggregate daily attendance divided by the legal number of teaching days in the year, was 224,588—increase, 7,404.

III.—CERTIFICATES, ANNUAL SALARIES OF TEACHERS.

1. *Number of teachers, male and female.*—In the 4,990 schools reported, 6,473 teachers have been employed—increase, 5; of whom 3,060 are male teachers—increase, 40; and 3,413 are female teachers—decrease, 35. It will thus be seen that there are about 400 more female than male teachers.
2. *Teachers' Certificates.*—Total number of certificated or licensed teachers reported, 6,473—increase, 5; Provincial Certificates, 1st class, 210—decrease, 40; 2nd class, 1,409—increase, 105; County Board certificates of the old standard, 1st class, 328—decrease, 43; 2nd class, 142—increase, 8; 3rd class, none—decrease, 14; New County Board, 3rd class certificates, 3,904—decrease, 22; interim certificates, 480—increase, 11.
3. *Annual salaries of teachers.*—The highest salary paid to a male teacher in a county, \$900—the lowest, \$125; in a city, the highest, \$1,000—the lowest, \$500; in a town, the highest, \$1,200—the lowest, \$200. The average salary of male teachers in counties was \$382—of female teachers, \$247; in cities, of male teachers, \$730—of female teachers, \$313; in towns, of male teachers, \$577—of female teachers, \$274. The average decrease of male teachers' salaries for the province during 1878 is \$3 per male teacher.

IV.—ROMAN CATHOLIC SEPARATE SCHOOLS.

1. The number of Roman Catholic Separate Schools is 177—decrease during the year, 9.
2. *Receipts.*—The amount apportioned and paid by the Department of Education from the Legislative Grant to Separate Schools, according to average attendance of pupils, as compared with that at the Public Schools in the same Municipalities, was \$12,620—increase, \$244. The amount apportioned and paid for the purchase of maps, prize books and libraries, upon the usual condition of an equal sum being provided from local sources, was \$788—decrease, \$442. The amount of school rates from the supporters of Separate Schools was \$79,120—increase, \$6,942. The amount subscribed by supporters of Separate Schools, and from other sources, was \$85,019—increase, \$537. Total amount received from all sources was \$127,549—increase, \$7,282.
3. *Expenditure.*—For payment of teachers, \$70,361—increase, \$100; for maps, prize books and libraries, \$1,914—decrease, \$896; for sites and building school houses, \$25,864; for other school purposes, \$22,479.
 - a. *Pupils.*—The number of pupils reported as attending the Separate Schools was 25,280—increase, 328. *Average attendance*, 13,172—increase, 623.
 5. The whole number of teachers employed in the Separate Schools was 338—decrease, 1; male teachers, 104—decrease, 1; female teachers, 229.
 6. The same table shows the branches taught in the Separate Schools, and the number of pupils in each branch; also the number of schools using maps, &c.

V.—HIGH SCHOOLS, RECEIPTS AND EXPENDITURE, PUPILS, NUMBER OF SCHOOLS.

Receipts.—The balances reported from the preceding year (that is, of moneys not paid out by the 31st December, 1878), were \$13,810—decrease, \$2,856. The amount received by the High School Boards from legislative grant for the salaries of teachers was \$77,106—increase, \$1,947. The amount of legislative grant apportioned for maps, prize books, etc., was \$1,796—increase, \$233. The amount of municipal grants in support of High Schools was \$202,848—increase, \$44,054. The amount received for pupils' fees was \$21,681—increase, \$828. Balances of the preceding year and other sources, \$103,045—increase, \$18,460. Total receipts, \$420,188—increase, \$62,067.

Expenditure.—For salaries of masters and teachers, \$223,010—increase, \$11,402; for building, rent and repairs, \$83,968—increase, \$32,551; for fuel, books and contingencies, \$83,904—increase, \$7,606; for maps, prize books, apparatus and libraries, \$5,126—increase, \$739. Total expenditure for the year 1878, \$396,010—increase, \$52,300. Balance of moneys, not paid out at the end of the year, \$24,178—increase, \$10,367.

Number of Pupils, 10,574—increase, 1,345.

Number of Schools, 104.

VI.—HIGH SCHOOLS, NUMBER OF PUPILS IN THE VARIOUS BRANCHES, MISCELLANEOUS INFORMATION.—HEAD MASTERS AND THEIR UNIVERSITIES.

Table H shows both the subjects taught and the number of pupils in each subject in each of the High Schools, the names, university degree (or certificate) of the Head Master, and the number of masters employed in each school, &c.

No. of Pupils.—In English Grammar and Literature, 10,486; in Composition, 9,844; in Reading, Dictation and Elocution, 10,184; in Penmanship, 7,683; in Linear Drawing, 2,881; in Book-keeping, 4,011; in Arithmetic, 10,450; in Algebra, 10,212; in Geometry, 9,723; in Mensuration, 5,483; in History, 9,855; in Geography, 10,074; in Natural Philosophy, 2,375; in Chemistry, 2,379; in Natural History, 242; in Physiology, 328; in French, 3,588; in German, 516; in Latin, 4,729; in Greek, 883; in Gymnastics and Drill, 1,822.

Of the school-houses, 74 were of brick, 20 stone, 10 frame; 6 were rented or leased, the remainder freehold. The tendency everywhere is to improve the buildings and grounds required for High School purposes, so as to make each High School worthy of its now recognized position of being the local College.

It is astonishing how careless candidates for the position of teacher sometimes are in the spelling, grammatical construction, arrangement, &c., of their applications. The following are given as selections from a number received in answer to a single advertisement by a School Board in England:—

No. 8.—“I have a kind and enticing way with me with children. I am honest and industrious.” &c.

No. 13.—Presents his application and testimonials on four sheets of badly written and untidy note paper, each sheet different both in size and color from its companions. This is not a case where “variety pleases.”

No. 27.—Mr. A. B. thinks it sufficiently respectful in this case to write his application on a leaf of paper torn from a child's ordinary exercise book. His style of abbreviation, too, is not good. These are specimens—“gov.,” “exam.,” “off” (for offer), “ass.” (for assistant, I suppose?).

No. 32.—Writes very nicely on scented paper, and “hopes you will think favorably and let him know. He was in conjunction with good discipline popular with his class.” (*Vide tert.*)

No. 49.—Mr. — has been used to “Sunday Duty,” and I suppose lest the precious contents of his interesting communication should escape during transmission through the post, he drops his sealing-wax on the thoroughly adhesive envelope in three several places. These drops may be to act as watchmen! Stay! perhaps they were meant as “kisses” for our kind-hearted Rev. Secretary.

No. 51.—“Sir, I being an applicant for a situation of an Assistant Master see that you are advertising for one.” Head Master “can confidently recommend” this gentleman “to any school

committee.” Perhaps so, but from the general style of his letter, others may be allowed to question the propriety of his doing so.

No. 57.—This is unique. “Having seen your advertisement I beg to off myself for the situation.” “I am not the holder of a certificate.” (What a pity!) The writer of this application presents six testimonials, and can “produce others from the Rev. Dr. — and W. E. —, B. A.” if required. He is, however, unfortunate in the selection of those sent. Test 1:—Mr. A. B. “bears an irreproachable character” and “comes out of a very excellent family.” “His diligence as a Sunday school teacher,” &c. Test 2:—“I heroby certif that Mr. —, whome I have known,” &c., and “whome I highly respect,” &c. Test 3:—“He is the son of a very respectable family and has born the highest character,” &c.

—A case was recently decided by Mr. G. T. Denison, Police Magistrate of Toronto, which is of importance to the teachers of the whole province of Ontario. There is, unfortunately, a class of men in nearly every community who speak and act towards teachers as though they were persons without rights, and fit objects on whom to vent unlimited amounts of ill-natured abuse. With a view of teaching a lesson to one of these, who had used abusive language towards one of the female teachers on their staff, the Committee on School Management of the Toronto School Board advised his prosecution, not to injure him, but that he and others might be taught not to interfere with teachers in the discharge of their duties. The magistrate imposed a fine of one dollar and costs on the offender, and bound him to provide sureties that he would keep the peace for one year. It is time parents learned that they cannot with impunity disturb a school while in session. They have a right to go to the school as visitors and as such every right-minded and properly qualified teacher will welcome them. They have no legal claim upon the teacher's attention, however, during school hours, and they are certainly not justified either by politeness or law in disturbing a class by an unmannerly attack on the teacher.

—We have received the tenth Semi-annual Circular (or Report) of Dr. Rand, Chief Superintendent of Schools in New Brunswick. It contains a considerable amount of statistical matter, examination questions, official notices, &c. The notes on Canadian History, prepared by Herbert C. Creed, A.M., are very concise and well arranged. The most valuable features of the circular are the reports of the Provincial and County Institutes. Many of the papers read at them are given in full. They are thoughtful discussions of leading educational questions, and we have obtained permission to publish some of them for the benefit of the readers of the JOURNAL.

—The last quarterly report of Dr. Harris contains the following statistical statement regarding the public Kindergartens of St. Louis:—

“In the Kindergartens the number of paid teachers was 150; of unpaid teachers, 47; total, 197. The average number of pupils belonging was 4,503, of whom 2,718 were attendant on the primary school for half a day, and 1,785 attendant on the Kindergartens alone. The total number enrolled in the Kindergartens for the ten weeks was 5,838. The number of Kindergartens was 52—counting each morning and each afternoon separately.”

—Dr. Harris has given notice to the School Board of St. Louis that he will not be a candidate for re-election in May next. This will be a loss to St. Louis, and will be of serious import to the profession throughout America, if he retires from the field of education. During the twelve years of his inspectorial work the pupils of St. Louis Public Schools have increased in number from 15,000 to 50,000.

THE PENMAN'S ART JOURNAL,

Whose prospectus appears in our advertising columns, is one of our most interesting and valuable exchanges, and one which we can earnestly commend to all who have to do with penmanship, either as teachers, pupils, or as professional pen artists. It is conducted by Prof. D. T. Ames, who has long been recognized as the leading pen artist of America. His compendium of "Practical and Ornamental Penmanship" is the most comprehensive and complete handbook in the Penman's art we have ever examined. Prof. Ames' great experience and skill, as author and teacher of penmanship, is conspicuously manifest through the columns of his Journal.

We are also in receipt of a copy of the Lord's Prayer, which is given as a premium to each subscriber. It is indeed a rare gem of pen art, and a valuable picture.

Contributions and Correspondence.

EDUCATION AT THE ANTIPODES.

BY J. GEORGE HODGINS, LL.D., F.R.G.S., DEPUTY MINISTER OF EDUCATION, TORONTO.

NO. III.—CONCLUDED.

New South Wales, the oldest colony in Australia, contains an area of 328,500 square miles, and has a population of about 520,000. The system of elementary education in this colony is under the direction of a Council of Education consisting of five members—three of whom are Knights, and four are members of either branch of the Legislature. The Council has been in existence twelve years. There are 1,117 schools under its control—561 are "public," 266 "provisional," 112 "half time," and 178 "denominational." The pupils attending these schools are as follows: 71,794 at the "public," 8,707 at the "provisional," 2,218 at the "half time," and 84,588 at the "denominational" schools; total, 117,252. No explanation is given of the terms "provisional" and "half time," but from the context it may be assumed that "provisional" schools are those established in sparse settlements, and "half time" schools are those designed for young children. The "denominational" schools are those under the control of the Church of England, Church of Rome, Presbyterians and Methodists. The expenditure on behalf of the schools under the control of the Council was \$1,384,708; fees, \$827,747; total, \$1,712,450. The expenses of the Education Office were \$47,068; of inspection, \$80,781; training teachers, \$49,978. The salaries of teachers are

fixed at the following scale: Those holding first-class certificates, grade A, \$1,020; grade B, \$960; second-class, grade A, \$840; grade B, \$780; third-class, grade A, \$680; grade B, \$600; grade C, \$540. To this scale is appended the following singular statement: The salaries of unmarried male teachers, married teachers not assisted by their wives, and female teachers in charge of schools, will be \$60 per annum less than the foregoing rates. The Council however state, in any public school where no residence is provided, an allowance for rent will be made to the teacher in charge. This is an excellent provision.

The two weak points of the system are stated to be "non-attendance of pupils" and the "want of efficient local supervision." To remedy the former, the Council issued a circular to teachers, "suggesting that they should, by personal interviews with parents, or by other means in their power, inquire into the causes of non-attendance of children, and use every possible exertion to bring absentees to school." The report states that "the teachers, as a body, carried out the suggestions of the circular with commendable zeal. . . . Moreover, the circular was found to produce a useful effect in another way. The teachers, by personal inquiry, made themselves acquainted with the views and feelings of the people upon the subject of education. . . . Some valuable information has thus been elicited," which it is proposed to turn to practical account. Apart from the special object here stated, the visits of teachers to the parents cannot fail to have a beneficial effect on the discipline and educational progress of the schools. We would therefore strongly commend the practice. The second point of weakness mentioned is the lack of school supervision by the local boards and trustees. The visits of inspectors are not sufficient to counteract the ill-effects of this local supineness.

Tasmania.—This small colony embraces 26,215 square miles, and contains a population of about 110,000. The schools in Tasmania have been managed by a Board of Education since 1868. There were 165 schools in operation in 1878, with a nominal attendance of 12,453. The average attendance, however, was only 6,082, or not one-half. The expenditures on behalf of education amounted to \$192,400, divided as follows: Salaries of teachers and other expenses, \$105,000; buildings, \$12,800; exhibitions of \$25, \$50, and \$100 each, \$4,080; night schools, \$1,290; secretary, inspectors, &c., \$9,280. About \$1,000 are paid to truant officers.

One feature of the Tasmanian system of education is the establishment of exhibitions and scholarships for pupils in the public and superior schools. These exhibitions and scholarships are conferred upon pupils passing successfully from the public to the superior schools, and from the latter to the universities. Their values vary from \$25, \$50 and \$100, to \$1,000 per annum. The latter are conferred upon "Tasmanian scholars," and are designed to defray their expenses at the English universities. Two are conferred each year, and are tenable for four years. In addition to these bursaries, there are medals and prizes conferred upon successful candidates for the degree of "Associate of Arts."

THE SCHOOLS OF ANCIENT GREECE AND ROME.

BY J. A. CULHAM, B.A.

Delivered to the Students of Pickering College.
(CONCLUDED)

Roman children, like the Grecian, passed their early years under the mother's guardianship, carefully secluded from all associations that might render them in the least un-Roman. Only those of the slaves who were possessed of education were allowed to converse in their presence, lest the pure Roman dialect might become tainted: the untaught tongue of a Gallic slave would corrupt the Roman child, as constant contact with the brogue of a Milesian broadens the pure accent of an English boy. About the sixth year both boys and girls were sent to school. The Roman boy was not banished from his mother's side, and separated from the companionship of his sisters, but, by new ties, new friendships, he was gradually weaned from the tender attachments of the nursery. The separate education of the sexes began a year or two later. I am sorry not to be able to give as full an account of the Roman ladies' schools as the interest of the subject demands. That they were educated, and that they occupied a much higher position, socially, than their Grecian sisters, there is no doubt. The wifely devotion of Fulvia, the accomplishments and virtues of Cornelia, and the wide-reaching influence of Agrippina, prove the fact; but no ray of light is cast on the educational system under which the characters of these women were formed. The recognized equality of the sex alone would go far toward imparting an education, in allowing them to listen to, and take part in, the discussions of their fathers and brothers and husbands. Then, too, they could read; and, very probably, they had as pleasing anticipations of new publications of their favorite authors, as the average modern young lady has of the next number of a serial that will contain something fresh from the pen of her favorite. We miss female writers among the Romans. Greece had her sweet-voiced Sappho, and France her Madame de Staël; and the amount of English literature of all kinds contributed by women is enormous. Rome, however, here modestly retires. I do not know that an explanation of the fact has been attempted. It was not, at least, due to the modesty of the sex, nor to their want of spirit; neither can we say that it arose from the scarcity of women at Rome; for we find a law in force in the time of Augustus inflicting a fine on bachelors beyond a certain age, for the purpose of lessening the number of that useful but much-ridiculed class, which has a few representatives in our own time. Perhaps the explanation may be sought in this fact: a writer to produce anything that will resist the wear of centuries must have read and studied; and unremitting application and concentration of thought was not to be expected from women whose fickleness and love of pleasure and excitement have passed into a proverb. I must not pass from this subject without attempting to counteract a prejudice which may have arisen in favor of the Romans, on comparison of their treatment of the gentler sex with that of the Greeks; and I warn you to be chary of championing the system of the former without careful consideration.

To return to the education of the boys. The pedagogue system was not in vogue. Slaves carried the books of their young masters to and from school; but no authority was given them to correct the faults of their charges. Reading and arithmetic were taught in almost the same way as in Greece. For writing exercise, tablets of wood or ivory, or some such substance, coated with wax, were in use. They wrote on these with a pointed instrument called a *stylus*, whence our word *style*. Papyrus and parchment, with liquid ink and reed pens, were also common. Horace gives a description of his school days. He writes: "My father was loth to send me to the school of Flavius, where big boys, the sons of important

centurions, with their satchels hanging on their shoulders, used to go, taking their teacher's fee; but he bravely took his boy to Rome, to be taught those branches which the children of knights and senators are taught; and if any one had seen my clothes and slaves, he would have thought that my outfit was provided from the coffers of a long line of ancestors." To understand this, we must know something of the class distinctions that existed at Rome. A man was despised there, in the days of the Republic, unless he could boast of ancestors who had held some of the higher offices of State. Personal merit, in the case of other men, was required before they received any consideration. These prejudices, however, in the time of Horace, were growing weaker; Cicero could boast of no ancestry, and yet he was styled the "father of his country;" and Horace, the son of a provincial auctioneer or commission merchant, a freedman at that, stood high in the favor of Augustus. We can see then the strength of the paternal love that nerved the father's heart to give his son a liberal education at any cost. The school of Flavius was a poor provincial one; and in order to obtain the advantages of a better, Horace the younger must go to Rome, and run the risk of encountering the jeers and taunts of high-born Roman youths on account of his lower station; and the father's purse was drained to furnish the means of lessening, as far as possible, the social distance between the son and his school-mates. And Horace is not ungrateful for his father's watchful care: he speaks of him always with affection; and on his "*monumentum ære perennius*" he has inscribed a lesson, on which fathers and sons through all time may ponder with profit.

At this time the Greek language was studied and spoken by every well-educated Roman. It formed a part of the educational system at Rome, and a knowledge of it was indispensable to those who took a University course, i.e., spent a year or two at the philosophical schools of Athens, which was still an educational centre. Greek masters were easily obtained, for Greece was at this time a Roman province, in the conquest of which many slaves were made, among whom were some possessed of considerable education. Under these masters Roman boys were introduced to the wide fields of knowledge opened to them in the literature of Greece. Philosophy had at this time become popular at Rome; and the tenets of the old Athenian schools were resurrected from the mass of criticism that had almost overwhelmed them. The writings of the Roman poets, moreover, could not be understood without some acquaintance with their Greek exemplars. So that profit, added to pleasure, gave great importance to the study of this language.

According to Horace, flogging was practised as a punishment at Rome. He has handed down to fame, by a stroke of his dry humor, Orbilius, one of his masters, to whom he applies the epithet *plagosus*—"the switch bearing." The instruments of punishment were the *taw* and the *ferule*; and they were probably often resorted to; for boys were mischievous then as now. Juvenal tells of a schoolboy's trick of making the eyes appear sore by anointing them with some kind of oil, and thereby shirking his part of reciting "The Death of Cato" at an exhibition given in his school.

Private tutors were frequently employed by wealthy Romans, more especially for teaching special branches, as Oratory and Music. The position of these tutors was not a sinecure. They were regarded, by a family of boys who had no love for study, as a common enemy; and it is well known what a burden a teacher's life can be made to him by a few refractory pupils.

The public schools were most probably closed at Rome for a summer vacation, though the question is a disputed one. The great number of State festivals, both at Athens and Rome, would dispense with any such vacations as are allowed in our schools; and we can easily imagine that occasional holidays were granted to the boys, who appreciated them as boys do now—not because of any definite

sonse of pleasure derived from them, but from the fact that boys have a longing for freedom without knowing what it means.

Prizes for good conduct or excellence of work are rarely mentioned. They may have been given regularly, but it is not probable that they were, for the State did not provide for them, and the pay of the masters was too small to afford them.

Music was not an indispensable part of a Roman's education. It did not at Rome, as in Greece, constitute a leading feature in their festivals and their banquets. The pride and vanity of a victorious general were more flattered by a magnificent triumph, which satisfied the Roman's love of display, than by a song of victory in his honor. The harp and the flute were used, indeed; but their gentle strains had no such charm as the clanging war-horn. The Roman dramas were shorn of the choruses that were indispensable to the drama of the Golden Age of Greek literature; a substantial prize was the object of the Roman athlete's envy rather than the laureled chaplet, the prize in the Greek contests. Hence, music was neglected at Rome: the charms of the soothing art were too subtle to influence the minds of a nation whose business was war.

The university life of the Roman youth resembles, in some respects, that of modern times. It consisted in passing a year or two in travel, the greater part of which was spent at Athens, that still, in philosophy, literature, and art, reared her head from amid the ruins of fallen Greece. Many of that country's philosophers, poets, and statesmen were taken to Rome as hostages; many, whose hatred of a foreign yoke forbade them to be witnesses of their country's disgrace, sought homes among the colonies which their ancestors had planted in the days of Greece's prosperity; but there still remained a sufficient number at Athens to retain for her the title of mistress of the world in intellectual culture. The Roman youth, therefore, flocked to her schools—some, to free themselves from the restraints of home, and find companions in dissipation, as many English youths of modern times resort to the Continent in order to free their fathers from an increase of personal responsibility, and return morally and physically ruined; others went for profit. They recognized the fact that the calm retirement, the holy air, that lingered around the temples and groves of Athens, the teachings of her philosophers, whom old associations still bound to the birthplace of their doctrines, gave ripeness of judgment, strength of character, steadiness of purpose, and independence of thought. Here, too, life-friendships were formed, as in the case of Cicero and Atticus, the former of whom, in his dialogues, constantly alludes to scenes in the city, and conversations held there, that show the depth of the impression made on his mind by his university life.

The development of the body was not so systematic at Rome as at Athens. The more violent exercises, as wrestling and boxing, were left principally to professional athletes. The *Campus Martius* was the lounging place of the Roman youth, whom laziness and the luxury of the baths did not prevent from taking open air exercise; but we miss the activity and system of the Athenian Gymnasia. The principal difference between the two nations in this respect lay in this fact: the Greeks aimed at the perfection of the whole, by making individuals perfect, as a result of which we find the Greeks models of physical development, while the Romans neglected individual training, aiming rather at a systematic whole; and this system is especially exemplified in the discipline of the Roman army, in which the skill of the general and the confidence of his soldiers were pledges of success rather than individual bravery. After the introduction of mercenary soldiers in Roman warfare, the Roman youth, untrained in the exercises of the Gymnasia, gave themselves up more to the pleasures of the gaming tables and the baths; and the neglect and abuse of the laws of health that followed was one of the causes of the nation's downfall.

I have attempted to give a sketch of the educational systems of the two greatest nations of antiquity. They differ to some extent in details; but the principal difference, as I have attempted to show, is in the ends they had in view in the education of their youth. Greece had the one object of making her sons Greeks—descendants worthy of their fathers who fought at Marathon, trained in the qualities of self-denial and prudence, and fitted either to command or obey. Rome, on the other hand, educated her sons in an aimless kind of way—as a matter of duty, which, as soon as it was performed, afforded a great relief. There is something very modern in this: a certain class, in our own day, send their children to school for a few months each year for a few years, and then consider their duty done, as far at least as education is concerned; and they complain loudly that there are legislative enactments for compulsory education. Their number is, however, fortunately for the country and happily for the children, growing fewer. It is not a mere guess at truth to say that the wide difference in the characters of these two nations, alike in origin, under the same climatic influences, and with the same form of government, which may be called a *limited democracy*, is largely due to the difference in their Educational systems. Their histories are a light to guide and warn: we can follow where they succeeded, and avoid the breakers that wrecked them. Above all, in these days of socialism and its kindred evils, we can take an example from the system of Greece, and in the school-room instil a love of country—make patriotism, not a general virtue, but a personal duty. By this means—for the principle is right and sound, and the judgment of ripener years will not find reason to depart from it—the storms of civil discord that now sweep over nations, and make thrones to totter, will grow calm, and give way to a millennial peace. Far in the future, when the death-knell shall have tolled a mournful farewell over our English language, and its urn shall have been placed side by side with those of Greece and Rome; when a new race, speaking a strange tongue, shall inhabit the earth, some antiquarian, perchance, writing on the educational systems of the Ancients, shall disinter blue-book on blue-book, educational reports, ministerial recommendations and the like—what discoveries will he make! He will find how many of Rome's and England's free-born sons were little higher than the brutes—millions knowing no other pleasures than those of sense; he will read that Greece was the acknowledged mother of literature, philosophy and art, and that her popular enjoyments combined the arts which charmed the senses and trained the intellect; and he will consider why so few years mark the length of Greece's rule, while the eagles of Rome floated victorious, decade on decade, through a monarchy, a republic, and an empire; and while, for centuries, England, old Ocean's favorite child, has sat on her island throne, fearlessly wielding the destinies of the world. I leave him to consider.

THE STUDY OF HISTORY.

BY T. O'HAGAN, BELLEVILLE.

There are few subjects of greater importance than that of history. If the proper study of mankind be man, then it behoves us to pay much attention to the study of history, which has for its object the vindication of man. History means well-nigh everything. It is philosophy, it is poetry, it is literature. Is not history a record of every subject? Is not the advancement of mathematics a history in itself? That Newton discovered the Binomial Theorem is a fact which comes within the realm of history. History is then a record of all that has transpired in the family of mankind. It is

philosophy teaching by experience. By means of it we pierce our way through the vistas of the past and look up the aisles of the future, we hold communion with the dead, and sit in council with an offspring yet buried in the womb of time. How rapid is the winged flight of imagination! Yet the foot of history is as fleet. With what celerity does the page of history picture to our minds the sovereignty of the Garden of Eden in its primitive greatness! We have scarcely beheld Noah and his family enter the ark until we behold the arc of God's covenant span the heavens. Thus history hurries us along through the different periods of the world's existence. We accompany Moses through the promised land, and stand with him upon Mount Sinai as he receives the Divine commands. The spirit of history bears us along through the ages of empires—

"Greece, Rome, Carthage, where are they?"

Each nation rises before us, then fades away like the mist before the morning sun. Each sovereign rules his hour and then departs, bequeathing his sceptre to another. There is no interregnum in the great sovereignty of the world. The deeds of warriors are scanned and then surpassed. Each age is arrayed in more glistening armour. The sword gleams still more brightly in the hour of danger, and peace reigns more supremely when it comes. Conquest and loss, hope and fear, joy and mourning ring through the universe, and the heart of mankind beats and throbs to its varied and never-ceasing measure. Yes, the true import of history is found in the government of thought and action. He who would tell us only of camps and courts, and the drilling and killing of soldiers, does not merit the title of historian. He forgets that the great and mighty tide of thought and action is rolling through a world of existence, and it is this tide of thought and action that shapes and influences a nation. There must then be a real spirit in history through which its characters live and move and have their being. "History," says Carlyle, "is a mighty drama enacted on the theatre of Infinitude, with suns for lamps and eternity as a background—whose author is God, and whose purport and thousand-fold moral leads up to the Throne of God." Here we have a sublime definition of history. Let us place it side by side with that of Voltaire, who said that history was merely a parcel of tricks that the historians played with the dead. How can we expect to understand the characters of those who lived two thousand years ago, when many of us are at a loss to understand ourselves. This, however, need not imply that the historian should be a character trickster. And what did Napoleon define history to be? He said it was simply fiction agreed upon. With fiction we always associate the idea of unreality. Now truth is real, and real history is truth; therefore history is neither fiction nor unreality. History by some is considered to be merely story-telling. This definition would hold good were there nothing else in the subject but narration. Nearly every person is more or less a story-teller, and consequently an historian. Yes, such a definition may pass muster with children who are more interested in the adventures of a Robinson Crusoe or the astounding feats of Jack the Giant Killer, than they are in the growth and development of a nation; but it can never be accepted as the real and true import of the term history. Froude says that history is like a child's box of letters, with which we can spell any word we please. We have only, says this historian, to pick out such letters as we want, arrange them as we like, and say nothing about those which do not suit our purpose. It is to be feared that the great English historian has too closely followed his definition. Half of our histories are but mere romances, containing neither spirit nor lore. To turn their pages would be but a useless task. They do not speak of the inward life of a nation. The kings pass before you just as in some play toy, distinguished from each other only by the armor on their masks.

Certain it is that history is a book with seven seals, and what we call the spirit of the past ages is but the spirit of this or that worthy gentleman in whose mind those ages are reflected. I remember having read some time ago an article in the "Canadian Monthly" entitled "A Quarrel with the Nineteenth Century," in which the writer complained of the difficulty of reaching truths through the medium of history. Well, it is a task, I must confess. Like our newspapers, on political subjects each has a mission to fulfil, and it is a question if all our histories together state certain facts intrinsically right. Each historian has his idol, before whom he bows down and offers incense. Read one history and you will learn that Queen Elizabeth was a most amiable personage, and fully justified in putting her cousin, Mary Queen of Scots, to death; while another represents her as a cruel-hearted and tyrannical monster. Even Henry the Eighth, ensconced within the circle of his six wives, comes in for a share of fulsome praise at the hands of James Anthony Froude; while Macaulay, who was well-nigh infallible as an historian, and could not write partially forsooth, wades knee deep in blood through the massacre of Glencoe in order to exonerate his favorite hero, William the Third, from all blame in the matter. And thus goes on the warring of historians, with truth and fiction I suppose arrayed on both sides. There is one thing certain, that we look for something better in histories than the mere chronicling of events. It is of little importance to know that the Magna Charta was signed by King John at Runnymede, A.D. 1215, if we do not know that it was the great bulwark of English liberty. The mere fact that we dined yesterday at precisely 12 o'clock, is not nearly so important to the welfare of our bodies as the food which we disposed of during the event. The life-blood of a nation is not nourished by dry facts and dates. The inward condition of life and conscious aim of mankind constitute much of the reality of history. It very often happens that we are wont to consider events ushered in by the thundering of cannon, the war of musketry and the bloody carnage of the battle-field, as the great landmarks of history. This is a mistake. "When the oak tree is felled," says Carlyle, "the whole forest echoes with it; but a hundred acorns are planted silently by some unnoticed breeze. Battles and war tumults, which for the time din every ear and with joy or terror intoxicate every heart, pass away like tavern brawls; except some few Marathons and Morgartens are remembered by accident, not by desert." History has been considered to be the written and verbal message which all mankind delivers to man. It is the communication which the past can have with the present,—the distant with what is here. "The perfect man in history," says Carlyle "would be he who understood and saw and knew within himself all that the whole family of Adam had hitherto been or done." Such a person we do not expect to find; hence we must bear with the imperfections of history. Let us read the premises of history and draw our own conclusions, not follow the coloring of the historian; but view facts through the lens of our own minds. And now I come to the question, Is history a Science? My reply is, yes. A subject is said to have entered the scientific stage when phenomena are no longer isolated experiences, but appear in connection and order; when, after certain antecedents, certain consequences are uniformly seen to follow; and when, with facts collected, we form a basis by which we can, in some degree, foresee the future. But we must ever remember that there is something else in history besides the marvellous and the wonderful, that the true purport of history is not to amuse, but to instruct. It is the great emporium of knowledge, in which all can be shareholders. We can all sit at the footstool of history and become learned. In former days, the office of historian belonged, in a great measure, to the minstrel.—

"The last of all the bards was he
That sang of border chivalry."

But the history doled out by the minstrel was only the history of song. We feel, however, that we are now touching greater years; and as the inquiring nineteenth century speeds on its way, we begin to study more and more the true philosophy of history. Gibbon believed that the era of conquerors had gone; but could he have communed with the spirit which has cried "havoc and let slip the dogs of war," he would have believed that such an era was only being inaugurated. The blood-stained clouds which had floated above Sadown and Woerth have scarcely passed away ere the heart of the whole Christian world mourns for a royal death in Zululand.

And now a word touching the true spirit of history. To me it would appear that this is often lost sight of. Instead of counting the followers of Mahomet, we should rather inquire what was in the character of the people which enabled Mahomet to work upon them,—their existing beliefs, their existing moral and political condition. It is not enough that we should know princes and crowned heads of Europe who enrolled themselves under the banner of the cross in the great movement of the Crusades; the effect of the great military expedition upon European civilization and commerce is of far more paramount importance to the student of real history. With respect to methods of teaching history, let us take a lesson from the pioneers of Canadian civilization, who, in piercing the heart of the virgin forests of this land, first blazed a large tree here and there in order that they might not lose their way in the interminable mazes of the forest. In like manner let us be guided through the great labyrinth of history by great and leading facts, for we are indeed pioneers pushing our way through the remote ages of the past, and our destination is that era coeval with Creation, when the garden of Eden formed the great sovereignty of the world, and the divine right of kings belonged to the first subject and King Adam. We should also impress upon our pupils the fact that the reality of history consists in the essence of biographies which contain all the greatness of mankind—a greatness worthy of our young men and women who have for their object nobility of character, and who desire to lead great and good lives.

THE "BONUS" TO COLLEGIATE INSTITUTES.

BY A HEAD MASTER.

Some four years ago the Intermediate Examination was introduced into the High Schools of the Province, and the mode of distributing the High School grant was changed.

Previously to this, the amount of grant depended upon the number that each head master could crowd into his school of those who had passed the entrance examination. Before that again, it depended upon the number that could be induced to study Latin. In both cases the principle was wrong. In the former case, the tendency and the result was to admit large numbers of unprepared pupils, and convert the High Schools into inferior Public Schools, in the latter, every pupil that could be got to do it was compelled to waste his time in acquiring the merest rudiments of Latin grammar, beyond which a large proportion never proceeded, and of which they made no use. After many years of this sort of thing, our educationalists and educational authorities grew wiser, and established the system of "payment by results." Under this mode of distribution, about two-thirds of the whole amount is allotted on the principle of a fixed grant to each school, which prevents the extinction of smaller schools, and secures a fair amount of higher education in each county. The remaining third is distributed on the "payment by results" principle, as determined

by the Intermediate examination and the estimate of the High School Inspectors. Whatever may be the defects of the present system, there can be no doubt that it is an immense improvement on the former one; and now that the Intermediate is to be held but once a year, there are few that would like to see any further change at present. As to that portion allotted by the Inspectors, it is only right and proper that they should have the power to give additional effect to their inspection by allowing a limited portion of the grant. On the whole, then, the present system much surpasses the one it displaced.

A part of the old system, however, was retained in connection with the Collegiate Institutes. In order to encourage the cultivation of high scholarship in centres of population which might have the ability and inclination to supply the means of acquiring such, a special grant over and above the ordinary revenue of the High Schools was made on conditions which, in the main, were fair, but to one of which I take objection. It was made a *sine qua non* in the case of such institutions, that there should be an average of sixty boys in Latin. The aim in this was right enough, but our educational legislators do not seem to have realized that they were really retaining what had worked disastrously so far as genuine scholarship was concerned. No regard was had to either broad or deep scholarship. Of course it was supposed that if there were in any place that number studying Latin, both this subject itself would be pursued to its highest limit, and the kindred studies required to be taught with it, would also receive their share of attention. But those acquainted with the old system, which made the money grant dependent on the number in Latin, know how easy it was to crowd those into this study to whom it was of no benefit, inasmuch as they did not pursue it beyond the merest elements. If we take note of the relatively low position that some of the Collegiate Institutes have held for years, and the comparatively high position that many of the High Schools have secured—ranking above some of the Institutes, and on a par with most of them—there is *prima facie* evidence that the retention in the new system of this error in the old is not producing the best results, and that the time has come for a change.

It may be asked what we would propose instead of the present scheme. It may be said that it is an easy matter to make objections—to pull down; how do you propose to build up? Without at all wishing to thrust my views upon the Minister of Education, I would respectfully submit the following as an outline of what seems to me much more desirable conditions of allotting the special grant to Collegiate Institutes.

1st. Reduce the number of pupils required to take Latin to forty; and let it be the duty of the Inspectors to see to it that these are *bona fide* students of Latin, and that there is a reasonable prospect of their pursuing the study to a point that will be deemed satisfactory. To the old system of admitting pupils to the High Schools, and to the present condition of obtaining the special grant to Collegiate Institutes, the same evils attach. The tendency of both systems was, and is, to thrust into the study of Latin large numbers, merely for the purpose of obtaining the grant in each case, without asking the question whether they were or are likely ever to make anything out of it. In short, it is universally admitted that under the old system a large proportion of such pupils never got beyond the grammar, and a very imperfect knowledge of that. A little consideration will make it evident that, to a very large extent, it must be the same under the conditions that attach to the special grant system.

With the number of High Schools that exist in each county, it is scarcely possible for any centre of population under eight or ten thousand to furnish the required number of pupils, unless it hap-

pens to have become a large boarding-school centre, as Galt, for instance. With a less population than this, a varying but very considerable proportion of the Latin pupils will consist of young boys who are forced to take Latin merely to make up the number, and who will never pursue it to an extent to be of any real benefit to themselves; or of young men who come in from the country for six months or a year to fit themselves for passing the "Intermediate;" and who are, in like manner, forced to go in the ranks of the "humanitarians" whether they will or not. In short, the law as it now stands offers a direct premium to the lowest forms of scholarship, instead of to the highest;—so that while its letter may be carried out, certainly it is in direct opposition to its spirit and intention, which we suppose to be, to form centres of advanced education.

2nd. Let it be one of the conditions of obtaining the grant that there be an Upper School of, say, twenty to thirty of an average. The spirit and intention of the law would then be fully carried out. Instead of holding forth a money inducement to force on a fixed number of pupils doing the lowest work, the aim would be, throughout all the forms—the lowest as well as the highest—to produce thorough scholarship; as only in that way can an Upper School be founded and kept up. The influence of this would extend even to the entrance examination; for head masters will be forced to admit only those well qualified in order to supply good material for their lower forms.

The whole tendency of a change in this direction would be to raise the standard of admission, and to make and keep the scholarship high all through the course.

3rd. But I would not stop here. It might be possible to get the above mentioned average of Upper School attendance, and yet not produce the highest results. There might be a comparatively large attendance who would just pass the Intermediate and proceed no further; so that a Collegiate Institute might become only a mere wholesale manufactory for second-class teachers. Even this would be preferred to the mere "studying Latin" test. But it would not fulfil the obvious intention of the law in regard to these institutions, viz.: to produce the highest scholarship to be obtained in the Province short of the Universities. Combined with this requirement, therefore, there ought to be some regulation requiring the full round of Honor, Classics, Mathematics, and Modern Languages, to be steadily and continuously taught.

It is not necessary that all the work prescribed in these subjects be taught at the same time, but simply that there be classes in the Honor work in all the departments, commencing and prosecuting them up to matriculation; followed by other classes travelling over the same ground. A forced average attendance of sixty in Latin will not necessarily secure high attainment in Greek, Latin, French, German, Mathematics; but high scholarship in these subjects will greatly overbalance any deficiency in the numbers of those who can go through the declension of *penna*, or the conjugation of *amo*.

4th. In addition to the above essentials, it might be further required that Collegiate Institutes send up year by year a fixed number of candidates for matriculation at the Provincial University, the mere number each year not being of so much importance as the steady annual supply. We do not wish to draw any invidious distinction between the University and similar institutions; but we mention it because it is *national*, as are also the High Schools and Collegiate Institutes themselves; and at least no other University in the province possesses a higher standard of learning. This does not, of course, preclude it from preparing pupils for any examination whatever; but there ought to be, besides the reports of the Inspectors, some uniform standard by which to test results, and we do not know of any higher than an *honor* examination in the University.

Such, briefly, is an outline of what I would substitute for the present "Latin" condition of obtaining the special grant; with the other regulations as to masters, &c., I would not interfere. This plan would not have the tendency to unduly increase the number of Collegiate Institutes, as it would only be in localities where the people have a strong desire for higher education that it would be possible to establish and keep up such a high standard as that proposed. A few schools that have taken and held a high position ever since the establishment of the new system might make good their claim to the grant; but, on the other hand, we are convinced that some of the present institutions would have to use the spur to keep in line. No better stimulus could be applied to these institutions of learning than the change that we propose. We trust that it will commend itself to our educational authorities.

Mathematical Department.

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

APPROXIMATE SOLUTION OF EQUATIONS.

If two numbers, a and b , when substituted for x in $f(x)$, a rational integral expression, give results with contrary signs, one root at least of the equation $f(x)=0$ must lie between a and b . For since $f(a)$ and $f(b)$ have contrary signs, $f(x)$ for some value of x between a and b must vanish; such a value will be a root of $f(x)=0$, i.e., one root at least of $f(x)=0$ lies between a and b .

We say one root at least, since several equal roots may exist between a and b . Moreover, as x changes from a to b , $f(x)$ may have changed signs several times, which would indicate the existence of several roots in the interval. It may happen, however, that something in the problem in the solution of which the equation arose, or something in the equation itself, indicates that but one root exists in the interval ($a\dots b$); we proceed to show how, in such a case, we may determine the root approximately.

Let a be less than b , and let them be consecutive numbers, so that $a+1=b$, and suppose $\frac{1}{y}$ to be the fraction which added to a will complete the root, so that y is greater than unity.

Then $a+\frac{1}{y}$ substituted for x will make $f(x)$ vanish. Let this substitution be made; then clearing of fractions, we shall have an equation in y which has a root greater than unity, y being greater than unity. Let it be found on examination that this equation in y has a root between a' and b' , and let $\frac{1}{z}$ be the fraction which when added to a' will complete the root, so that z is greater than unity. Then $a'+\frac{1}{z}$ substituted for y will make the equation in y vanish. Let this substitution be made; then clearing of fractions, we shall have an equation in z which has a root greater than unity, z being greater than unity. Let it be found on examination that this equation in z has a root between a'' and b'' , and let $\frac{1}{w}$ be the fraction which when added to a'' will complete the root, so that w is greater than unity. Then $a''+\frac{1}{w}$ substituted for z will make the equation in z vanish. Let this substitution be made, and let the previously described operations be repeated. Then $x=a+\frac{1}{y}$;

$$y = a' + \frac{1}{z}; z = a'' + \frac{1}{w}, \text{ \&c.}$$

$$\text{Hence } x = a + \frac{1}{a'} + \frac{1}{a''} + \frac{1}{w},$$

or approximately, omitting the w ,

$$x = \frac{a'(aa'+1)+a}{z'a'+1}.$$

By repeating the operations we may approximate with any degree of closeness to the value x , though the numerical labor of the operatives will continually increase.

Example: $x^3 + 10x^2 + 6x - 120 = 0$.

When $x=2$, the left hand side becomes negative, and when $x=3$,

positive. A root lies between 2 and 3. Let $x = 2 + \frac{1}{y}$, and substitute. Then

$$1 + 16y + 58y^2 - 60y^3 = 0.$$

$y=1, y=2$ give contrary signs. Let $y = 1 + \frac{1}{z}$, and substitute. Then

$$-60 - 122z - 48z^2 + 16z^3 = 0,$$

$z=4, z=5$ give contrary signs. Let $z = 4 + \frac{1}{w}$, and substitute. Then

$$16 + 144w + 262w^2 - 292w^3 = 0.$$

and here $w=1, w=2$ give contrary signs.

$$\text{Hence, approximately, } x = 2 + \frac{1}{1} + \frac{1}{4} + \frac{1}{1} = 2.833.$$

To be certain that the third figure is correct we should have carried the operations one stage further, and if we still got for the first three decimals 833, we have sufficient evidence that the third figure is 3.

We are sure many of our readers, in applying their algebra to geometrical problems, have frequently encountered cubic and biquadratic equations and been unable to proceed. The above will often extricate them from such difficulties.

APPROXIMATE QUADRATURE OF THE CIRCLE.

The following mechanical quadrature (approximate) of the circle is given by P. E. Chase, LL.D., in the Proceedings of the American Philosophical Society:

Let AC ($= 20$, say) be the diameter of the circle a straight line approximately equal to whose circumference it is required to find. From AC cut off $AB=3$. Draw AD at right angles to AC and $=9$. Join CD , and draw BE parallel to CD , meeting AD in E . Produce AC to X , making $AX=60$. Produce EA to Y , making $EY=20$. Then XY shall be approximately equal to the circumference of the circle whose diameter is AC . By calculation it may be easily shown that $XY=3.141583 AC$, which is certainly sufficiently accurate for practical purposes. The method, requiring only a divided rule, a square, and parallel rulers, will be found useful in many mechanical operations.

SOLUTIONS OF PROBLEMS IN JANUARY NUMBER.

1. If O be the centre of the ball 18 inches in diameter, a point 9 inches above O will be the highest point of this ball above the floor. Let A, B, C be the centres of the other balls whose diameters are respectively 16, 20 and 28. Then the sides of the tetrahedron $OABC$ are known. Frost (Solid Geometry, §124) gives a relation between the four-point co-ordinates of a plane. Three of the co-ordinates are known, viz.: the perpendiculars from A, B, C

on the floor, and from this relation the fourth co-ordinate, the perpendicular from O , may be found.

2. Let x, y be the co-ordinates of the officer at time t from starting, s the distance travelled by him in this time, the centre of the army being supposed to move along the axis of x . Then $s = 7t$. Also, 1 being the radius of the circle

$$\{x - (3t+1)\}^2 + y^2 = 1^2,$$

$$\therefore x - (3t+1) = \pm\sqrt{1-y^2},$$

$$\text{or } s = \int [x - 1 \mp \sqrt{1-y^2}] \dots \dots (1).$$

$$\text{Also } s = \int \sqrt{1 + \left(\frac{dy}{dx}\right)^2} dx \dots \dots (2).$$

Eliminating s from (1) and (2), we would then have the equation to the curve; and then, knowing x in terms of y , we could from (1) find s when $y=0$.

3. Let u ($= \frac{1}{r}$), θ be the polar co-ordinates of the dog at time t , the centre of the circle being the pole, and a diameter through the point from which the dog starts being the initial line. The equation to the tangent to the curve in which the dog moves is

$$u' = u \cos(\theta' - \theta) + \frac{du}{d\theta} \sin(\theta' - \theta), \dots \dots (1).$$

And the dog's motion being always directed towards the rabbit, this tangent will always pass through the point $(a, \frac{50kt}{a} + \alpha)$

where a = radius of field, $50k$ = rate of motion of rabbit, and $\alpha = 35^\circ$. Hence, substituting in (1),

$$a = u \cos\left(\frac{50kt}{a} + \alpha - \theta\right) + \frac{du}{d\theta} \sin\left(\frac{50kt}{a} + \alpha - \theta\right) \dots (2).$$

Also,

$$51kt = s = \int \sqrt{r^2 + \left(\frac{dr}{d\theta}\right)^2} d\theta = \int \frac{1}{u} \sqrt{u^2 + \left(\frac{du}{d\theta}\right)^2} d\theta \dots (3)$$

From (2) and (3) t is to be eliminated; we would then have the equation to the curve in which the dog moves, and could then from (3) find s when $u = \frac{1}{a}$.

4. The solution of this may be effected by using the geometrical construction given in the appendix to Todhunter's Euclid, p. 305, *et ante*.

5. Let V be the quantity of water in the tub at time t , dV' the quantity of water that comes from the spout in time dt , of which let dV be the quantity that remains in the tub. On mixing there will be

$$\frac{40}{40+dV'} (V+dV')$$

gallons of water in the tub. Hence quantity of water added

$$= \frac{40}{40+dV'} (V+dV') - V \\ = \frac{(40-V)dV'}{40+dV'}$$

Hence

$$\frac{(40-V)dV'}{40+dV'} \text{ or } \frac{(40-V)dV'}{40} = dV.$$

$$\therefore \frac{dV}{40-V} = \frac{1}{40} dV' = \frac{3}{40} dt.$$

Integrating,

$$-\log(40-V) = \frac{3}{40} t + C;$$

$$\therefore -\log 40 = 0 + C;$$

$$\therefore \log \frac{40}{40-V} = \frac{3}{40} t$$

$$\text{and } V = 40 \left(1 - e^{-\frac{3}{40} t}\right);$$

giving the quantity of water in the vessel at any time t .

We are asked for the solution of the following :

A contractor was to receive a certain price for a piece of work. If he employed a certain company of boys he would have to give them $\frac{1}{3}$ of the contract price; but if he employed a certain company of men he would have to give them $\frac{2}{3}$ of the contract price. To facilitate the work he employed both companies, and he received \$2,000 less than he would have received had he employed the boys only. Find the contract price.

The question is somewhat ambiguous, and it will readily be seen that under certain interpretations the solution becomes indeterminate. We shall, however, take the following, we think, reasonable view of the problem. The term "contract" implies that the work done is to be of a certain standard of excellence, whoever does it, and that it is to be done in a certain time. We infer, consequently, that work done by the company of boys is equally good and as quickly done as that performed by the men, and that the difference in price of the labor arises from the not unusual cause that boy labor is cheaper than man labor. With this interpretation the solution is extremely simple. The companies working together do equal quantities of the work, for which, however, the men receive twice as much as the boys.

Hence $\frac{1}{3}$ of contract price = price charged by boys.

$\frac{1}{3}$ of $\frac{2}{3}$ of contract price + $\frac{1}{3}$ of $\frac{2}{3}$ of contract price = price charged by both. $\therefore \frac{1}{3}$ of contract price = \$2,000, or contract price = \$12,000.

Practical Department.

THE VALUE OF PICTORIAL ILLUSTRATIONS IN SCHOOL INSTRUCTION.

BY H. C. CREED, A.M., INSTRUCTOR IN THE NEW BRUNSWICK NORMAL SCHOOL.

The representation of the forms of things is one of the earliest performances of juvenile humanity. This holds true of collective humanity as well as of individuals. Rude, uncivilized races record their deeds and communicate their messages in the natural language of pictures, of which the sculptured hieroglyphics of Egypt and Syria and the birch-bark drawings of the North American Indians are familiar examples. So, also, children very early manifest a disposition to imitate, with a pencil, the outlines of objects about them, and also a great fondness for looking at pictures. It is obvious, therefore, that pictures must afford a natural means of reaching the intellect and the sympathies of the child, and if of the child then also of the person of any age whose faculties have had a true and natural development.

One of the earliest attempts to use pictures as a direct and systematic means of instructing children was that made by Comenius in his work entitled "*Orbis Sensualium Pictus*" (The World of Visible Objects Portrayed), published in 1657. Both the quality of the pictures available for the purpose, and the extent of their use, have progressed very greatly since that time, but have by no means reached their limit as yet.

The usefulness of pictures in a general way is seen by comparing the keenness of observation, the general intelligence, the accuracy of knowledge exhibited by children brought up in the midst of an abundance of wholesome illustrated literature, with the comparative dullness of vision and narrowness of information shown by those who have not been so privileged. But, to come to the par-

ticular subject of this paper, I remark that the pictorial art may be made exceedingly helpful to teachers in a variety of ways.

I. Pictures are of service as an *auxiliary means of imparting information, and as an aid in explanation*. If correctly made, they usually give a better idea of the form and appearance of an object or the aspect of a place than any unaided description could do. Whether as forming the basis of lessons on particular objects, persons or places, or as illustrating incidental references made in the course of lessons, they are invaluable. Their usefulness is much wider than the use actually made of them in our schools would indicate; and, indeed, its only necessary limitations are these two: first, the fact that the object itself is always better than a picture of it; and, second, the fact that pictures are not always so drawn as to convey a true conception of that which they represent.

We all know how extensively pictorial illustrations are employed in the best works of the various branches of natural science. Treatises on botany or zoology, geology or astronomy, animal physiology, chemistry or physiography, would be not only unattractive, but comparatively unserviceable without the diagrams, etc., by which they are commonly elucidated. In mineralogy, anthropology and meteorology, in mechanics, hydrostatics and hydraulics, in the scientific treatment of sound, light, heat, electricity, etc., the aid of pictures is almost indispensable. But it is not only in the prosecution of these advanced studies that we can take advantage of the pictorial art: it is equally applicable to a wide range of elementary school work, especially in geography, in history, and in lessons on common things, when the animal or the plant, the costume or the person, the product or other article, cannot conveniently be, itself, exhibited in the school-room.

Illustrated manuals of certain subjects have been provided by the Board of Education for use in the schools of New Brunswick, and many teachers, no doubt, fully appreciate the benefit thus conferred, and take every possible advantage of it in their daily work. Some of us, however, seem to ignore the excellent woodcuts with which our reading books and geographies are embellished, or, at any rate, act as though these were intended merely for adornment or for the filling up of space. Few of us, perhaps, have really sought to get out of these illustrations all the good there is in them. What better introduction can we make to many a reading lesson than a study of the accompanying illustration, or of a suitable picture taken from our portfolio, or skilfully sketched upon the blackboard? How much more intimate a knowledge of a country, its people, its products, may be gained if we introduce a number of well-selected pictures to supplement the printed text. Suppose we are conducting a class through the geography of India, for example. We may exhibit sketches of Bombay and Benares, of the Ganges and the jungle, of Brahmans and Banyans, of Sikhs and Gingalese, of crocodiles and cocoa-nut palms. And who will deny that the trouble or even expense incurred will be more than repaid by the lively interest awakened in the lesson and the vivid conceptions imparted? Lessons in history, also, will be rendered doubly interesting and valuable by such illustrations as may readily be obtained. The painstaking teacher may gradually accumulate a stock of views of historic localities, battle scenes, portraits of celebrities, representations of ancient costumes and modes of life, with other matters of historic interest, which will be of incalculable service in the class.

I have said that pictures are often of great assistance in explanation as well as description. In both these connections their usefulness consists partly in the fact that they save words. Teachers are obliged to use the voice a great deal; so that whatever will serve to accomplish the desired result without expenditure of breath (as we express it), is valuable as a conservator of energy.

But, while saving voice-power, the use of pictorial illustrations also economizes time, since the trained eye will gather from a good picture, in one minute, more than it or the ear could take in from words in ten times as long.

It may here be observed that for purposes of instruction, especially with children, pictures should be simple, presenting but few objects at a time, and these, for the most part, so chosen as to aid in the process of comparison by suggesting resemblances and differences.

II. But it is not only as a means of instruction that pictures are valuable: they are of no small importance as *an educational instrument*.

Many of the benefits of object-teaching may be attained through picture-study; that is to say, in very many cases the flat representation of objects may be used for the objects themselves. Of course, in doing so, the teacher must not lose sight of the fact that every such representation is, to some extent, imperfect. It exhibits only one phase of an object. The full form, the color, the texture, the actual qualities may all fail to be expressed in the picture, while at the same time a good notion of the thing in other respects may be conveyed.

As to the value and the methods of object-teaching, it is, of course, unnecessary for me here to speak. Pestalozzi, in his work entitled *Wie Gertrud ihre Kinder lehrt*, affirms that the "culture of the outer and inner senses is the absolute foundation of all knowledge—the first and highest principle of instruction." But there is more in it than that: the cultivation of the faculties of sense-perception and of conception, by means of object-teaching, accompanied, as it may be, to the fullest extent, with exercises in comparing, generalizing and judging, constitutes a most important part of that mental culture and discipline which every school should afford. Moreover, a well-conducted course of object-lessons will always have, as one of its elements, a certain amount of exercise in the accurate expression of ideas on the part of the pupil, which will tend not only to enrich his vocabulary, but also to train him in the art of correct and fluent speaking.

Now, all these advantages are attainable as truly, though not as fully, by means of picture-lessons as by means of object-lessons proper. Frequently the desired object or article cannot be had, but a picture of it may be shown, and will form a most serviceable substitute. Always, however, where a picture is used for this purpose—as of an animal, a rare or foreign flower or plant or material—care should be taken to secure a faithful copy of the original, as nearly as possible of the natural size and color. A good picture of a leopard or a pelican, a paddy-field or a coal-mine, a Zulu and an Esquimaux, a volcanic eruption or a coral island, may be made the subject of an exceedingly interesting and instructive lesson; and this may be so conducted as to bring into exercise the pupil's powers of observation, conception, comparison, judgment and verbal expression. Of such exercise there cannot be too much. We have all read or heard more or less of "the development theory," and wise men differ as to its accordance with the facts of nature and revelation: development by exercise, however, is no theory, but what Elihu Burritt called "a tried, practical fact."

Again, pictures may be made the means of cultivating the taste or the æsthetic faculty. The importance of this need not here be argued. Says a recent writer, "However well the intellect, the will, or the conscience of an individual may have been trained, if æsthetic culture is wanting, he must continue rude and unrefined." In a great variety of forms, pictures may be made to contribute to this end in the school-room. Pupils should be encouraged to pass judgment upon pictures in respect to beauty of outline or of color, symmetry and proportion of parts, correctness of light and shade, character of general effect, and so forth. Such exercises will be

the proper complement of the instruction and practice in Drawing provided in the curriculum.

Here it may be remarked in passing that care should always be taken by teachers (and by parents and others as well) that the children are prevented as much as possible from seeing bad pictures. From pictures of what is vicious of course their eyes should be jealously guarded; but also they should not become familiar with crude or badly executed prints, and glaring daubs of colour under the name of paintings. By such means the taste is vitiated, the mediocre comes to be esteemed excellent, and the superior is not appreciated. The cultivation of a correct taste in art among the people is a matter of great practical and economic moment. Ruskin says that much harm has been done, not only "by forms of art definitely addressed to depraved tastes," but also by pictures that are simply not good enough,—“which weary the mind by redundant quantity of monotonous average excellence, and diminish or destroy its power of accurate attention to work of a higher order.”

III. A third aspect in which the subject may be viewed is the value of pictures *in adding to the interest of school work*, and thereby promoting good discipline, as indeed all that is good and useful in the school.

Let the walls be adorned with a few well-selected and neatly framed prints or chromos (or oil paintings, if really meritorious), placed there, not only for decoration but as illustrations of some topics of instruction; let the effect be heightened by the introduction of a few beautiful plants in pots, and a bouquet of flowers on the Teacher's table; and the pupils will soon come to take a pride in their school-room, in their Teacher, and then in themselves.

The practice of illustrating ordinary lessons by reference to pictures, whenever these are suitable for the purpose, will also serve (as already suggested) to fix the attention of the pupils, and to make the lessons much more interesting than they would otherwise be. Children generally are fond of pictures, and always derive pleasure from that which gives them clear and vivid conceptions of things. How much the school is benefitted by anything that tends to make school-life pleasant, I shall leave my hearers to compute.

I have spoken of the use of pictures in the school-room (1) as a means of imparting information, (2) as a means of exercising and training the mental faculties, and (3) as a source of pleasure and a promoter of the general well-being of the school. It only remains for me to notice briefly the various kinds and forms of pictorial illustration that are available for school purposes.

Of course the most obvious are the woodcuts which form so pleasing a feature of many modern school-books,—the artistic execution of many of which leaves little to be desired in that direction. For all the purposes mentioned, the admirable illustrations found in the Royal Series of Readers, including the Primary Wall Cards, in Calkin's Geographies, Swinton's Outlines of History, and others of our prescribed text-books, are eminently well adapted.

In the second place, schools should be provided with sets of wall-charts and diagrams, such as may readily be had for illustrating lessons of plant-life, classification of animals, natural phenomena, the mechanical powers, etc.

Thirdly, the walls of the school-room may be adorned with a few historical pictures, views of famous places or edifices, or bits of scenery. These need not be expensive, since some of the illustrated weekly papers and their colored supplements (particularly the Illustrated London News and the London Graphic), and such publications as "The Aldine" and Appleton's "Picturesque Europe" and "Picturesque America" will afford abundance of excellent material. One or two good lithographs or chromos may

also be had at small expense. The framing may be very cheaply done, or the pictures may be simply mounted on stout pasteboard, with or without glass, and suspended by eyelets or otherwise.

In the fourth place, such pictures as I have already mentioned may be cut out of illustrated papers or obtained in various ways, from time to time, by a Teacher who is willing to go to a little trouble; and can be kept in a portfolio ready to be brought out when needed, and pinned up on the wall or handed round among the scholars.

In the next place, chalk and blackboard are always at hand, and may be used with excellent effect by the skilful Teacher or by some competent pupil. Good sketches in white or colored chalks may be made to suit every purpose, and they have one advantage over every other mode of illustrating except perhaps the next to be mentioned, in the fact that the drawing may be executed in the presence of the pupils. This will have all the zest of an actual creation going on before their eyes.

The last mode of representation to be named is that of projecting pictures upon a screen by means of a magic lantern, scioptron or stereopticon, as the instrument is variously styled. This mode surpasses all others in the range of its application, but is limited in its use by the cost of the apparatus. For Colleges, High Schools, and schools in large towns, however, the expense is by no means so great as to prevent the introduction of this most valuable source of instruction and entertainment.

I must now close this paper, without a peroration. Our subject of inquiry has been the ways and means by which the pictorial art may contribute to the requirements of school-work. What has been said may be summed up in the words of Ruskin,—"It gives Form to knowledge, and Grace to utility."

METHODS OF PRESERVING AND STIMULATING THE DESIRE FOR KNOWLEDGE.

BY JAMES HUGHES, INSPECTOR OF PUBLIC SCHOOLS, TORONTO.

Some one calls a child an "Interrogative machine." Truly the appetite for knowledge with which nature endows him is a keen one, and difficult to satisfy. Some writers maintain that it is the duty of the school to set the child going mentally, that he may be self-educative when he leaves school. If pupils left school in as self-educative a condition as they enter it, there would be less ground for complaint than at present. The boy begins to "go" when very young, and for a few years he continues to develop at a rapid rate. Very few children are dull when very young. Most children make remarkable progress until they go to school. Then, too often, comes a period of stagnation from which many never emerge. Improper methods are too often the cause of the discouraging change. The following are points deserving consideration by teachers of primary classes.

1. The transition from the home to the school should be less sudden.

The child, on entering an ordinary school, passes from comparative freedom to confinement and restraint: from bounding activity to wearisome quiet; from actual things to uninteresting abstractions; from living flowers, and birds, and pets, to mere black marks called letters, in which for themselves he can have no active interest; from play to work; from instinctive to compulsory attention; from fresh air and sunshine to bad ventilation and imperfect and often injurious lighting; from the mossy bank to the hard and ill-formed seat.

Where the Kindergarten can be introduced it serves to make the

steps gradual in the change from the home to the school. The school should learn many lessons yet from the home and the Kindergarten. Teachers must study the child more before he enters school, and they should continue in school, more closely, the methods of self-education practised by him while he was at liberty to follow nature's guidance.

2. Knowledge should be used as it is acquired. Children delight in coming in contact with things which they can use. They care for what a thing does. The baby learning to talk, names the domestic animals according to the sounds they make. He calls the dog "bow-wow," and the cat "meow." This is true whether the name of the animal is more or less difficult to say than the sound made. While they have been making such rapid strides in learning and mental development at home, they were doing so by handling the things around them and by using their knowledge as quickly as they gained it. What a change comes when they go to school! Many even of the thoughtful class of teachers, deliberately reverse this plan. They reason somewhat in this manner: "These children cannot do much actual work yet, and so we will save time by making them do the drudgery of school work now." They are therefore set to learn all the letters before they begin to read, all the tables before they put them to any practical use, &c. It is probable that the letters and the multiplication table have done more to stupify boys and girls than any other causes. Girls and boys can work, and by working they not only learn how to work better, but become familiar with the elements of work they may be using. Even if the worst of all methods of teaching the names of words, the *alphabetic*, be used, no letters should be taught at first but those used on the first page or tablet of *reading* in the primer. The child should use the multiplication table, for instance, as he *learns* it, and he will thus pleasantly learn it as he uses it. Using and learning go hand in hand. Practical application is the highest and most effective style of review. A pupil will learn the "Two" line as far as "twice 4" in four minutes, but it will probably forget it in an hour, unless it is allowed to apply the knowledge it has gained. Why not teach it the process of multiplying at once in five minutes more, and then set it at work? "Oh, the child should never multiply until it knows its multiplication table!" says some driller. Does the study of the multiplication table qualify a child for the comprehension of the multiplying process? Certainly not. Then, again, the child who has been taught as far as "twice four" *does* know the multiplication table, so far as he is required to put it in practice. His teacher can assign several examples with no other multiplier but 2, and no figures in the multiplicand but 1, 2, 3 and 4. It will do him great good to work the same examples over a second or third time. Next day advancement should be made in the table and much practice given on both lessons, and so on to the end. This method will not prove a source of horror to pupils, but will delight them because they use the information as they get it.

If an apprentice, on entering a machine shop, were compelled by the foreman to spend months in learning the names of the various machines, and their different parts, their relation to each other, their uses, &c., would such a course fit him to take charge of even one of the machines? The probability is that long before the expiration of the time specified, his work of learning, at first fascinating to him, would become loathsome, and from loss of interest he would be to a large degree incapacitated for the highest degree of success in his work. He should, and, in charge of a practical man in any department of work, he does begin with the simplest of all the tools or machines, and he learns how to use it by using it. Others are entrusted to his charge when he is ready for them. Teachers should also be reasonable in familiarizing their pupils with the tools they have to use. The letters, the tables, rules in

grammar and other subjects, are merely the tools with which the child should be taught to educate himself, and they should be given to him only as he is able to use them.

3. The work of school should afford pleasure. If the desire for knowledge is to be kept alive and vigorous, if it is to survive through the early years of school life, school work must be made attractive. Herbert Spencer says that of all educational changes taking place, "the most significant is the growing desire to make the acquirement of knowledge pleasurable rather than painful—a desire based on the more or less distinct perception that at each age the intellectual action which a child likes is a healthful one for it; and conversely. There is a spreading opinion that the rise of an appetite for any kind of knowledge implies that the unfolding mind has become fit to assimilate it, and needs it for the purpose of growth; and that, on the other hand, the disgust felt towards any kind of knowledge is a sign either that it is prematurely presented, or that it is presented in an indigestible form. Hence the efforts to make early education amusing, and all education interesting. * * * As a final test by which to judge any plan of culture, should come the question—Does it create any pleasurable excitement in the pupils?" Discard any system of primary instruction, however time-honored or in accordance with theory it may be, unless it makes lessons attractive. With the older children the step from *instinctive* to *controlled* attention must be gradually taken.

It is very desirable that teachers should avoid any course of action which will tend to make learning distasteful. If men are to be self-educative when they leave school, they should have a love for knowledge, certainly they must not have an aversion to it. Lessons should never be assigned as a punishment. Pupils may be compelled to do, after school or at home, work which they have neglected to do at the right time. This is not a punishment for the neglect, however, but the performance of a duty which ought to have been done before.

4. School Exercises should be varied as much as possible. Of course the programme of studies should be fixed, and the time table adhered to regularly. The plan of presenting a subject should be changed, however. Some new element should be introduced each day. In teaching Geography, for instance, the map may be used one day, blackboard and slates the next, and the sand-box the next; to-day the teacher may point to the places he wishes to have remembered, and the pupils find their names; to-morrow he may give their names, and they find their positions on the map. The plan should be varied during a single recitation to a certain extent. So long as variety does not dissipate the attention, there cannot be too much of it. Freshness stimulates mental activity, routine deadens it.

5. The Child's Curiosity should be kept alive. Some pupils are always on the tip-toe of expectation. The teacher who can secure such a condition in his class is certain to have attentive scholars. Natural aptitude in the teacher has something to do in stimulating the curiosity of pupils. The power to sustain it, however, must be acquired. Pupils will not long seek to be fed with chaff. *The teacher must be prepared to gratify the appetite which he seeks to develop. He must be familiar with the subjects he has to teach; he should keep thoroughly prepared with all that relates to them in connection with current events. Hart aptly says: "To real, successful teaching, there must be two things, namely, the ability to hold the minds of the children, and the ability to pour into the minds thus presented sound and seasonable instruction. Lacking the latter ability, your pupil goes away with his vessel unfilled; lacking the former, you only pour water on the ground."*

6. The lessons given and the subjects taught should be adapted to the advancement of the pupils. If lessons

are too difficult, a child will naturally turn from them, first in disappointment, afterwards with dislike. The subjects should be presented in a manner suited to the ages of the pupils taught. Some of the most interesting studies are rendered permanently obnoxious by improper methods of teaching them to children at first. In teaching Grammar, for instance, dry, difficult, and uninteresting rules, with puzzling *exceptions to the general rule*, are memorized and recited, and the teacher, in addition to this outrage, actually deceives the unfortunate and long-suffering pupils by allowing them to believe that such wearisome drudgery is learning grammar. They of course in most cases associate the unpleasant feelings they receive in school with study and learning in the abstract, and therefore get a distaste for knowledge itself. Let the methods and the subjects be appropriate for the ages of the pupils, and their love of learning will continue.

7. The steps in learning should not be too great. If a desire for knowledge is to be maintained, the pupil must be able to see clearly how one portion of a subject is connected with another. The step to be taken should be based on those already established, and the teacher should remember that what appears but a molehill to him may be a mountain to his pupils. He is the best teacher who can most clearly remember his own early difficulties in learning.

8. Lessons must not be too long. This is true both as regards lessons at school and those assigned for home preparation. Long-continued lessons in school weary the mind; long lessons learned at home tire both mind and body. When learning becomes a "task" it necessarily ceases to be attractive in itself. It should not be surprising that, under such circumstances, children should lose their natural eagerness for knowledge.

If the suggestions given be carried out in the right spirit, boys and girls will continue to be "interrogative machines" throughout their whole lives.

THE SCHOOL SUPERINTENDENT AND HIS TEACHERS.

BY J. L. PICKARD, PREST. IOWA COLLEGE, IOWA.

Among the varied duties of the School Superintendent, those growing out of his relations to his teachers claim attention.

1. He should be a leader. To this end his fitness to lead must be recognized. His better acquaintance with the work required of teachers must be everywhere apparent. This acquaintance should be the child of experience; hence it is better, though not, in exceptional cases, essential, that the superintendent be chosen from the ranks of professional teachers. Theorizing the most attractive, the most plausible, even, will not satisfy the demand. Nor will practice in a narrow field prepare him for his wider duties. A wide and varied experience gives vigor to consciousness of power,—a prime element in successful leadership. But a leader, though familiar with details, cannot be burdened with them; he must generalize, grasp principles which underlie the detailed work assigned to his subordinates. It is his to plan the campaign, to assign to each division of his forces the work to be done, indicating the results to be accomplished, and leaving the minutiae to the discretion and loyalty of his teachers.

2. Confidence in the discretion of his teachers of necessity follows, from his lack of time to attend to details. If a superintendent feels it incumbent upon himself to mark out the steps for individual teachers, two things equally disastrous are consequent—the frittering away of his own time, and the purely mechanical work of each part of a vast machine. If he finds in his corps of teachers a manifest lack of discretion, the best remedy consists not in

himself doing the work through a faulty agent, but in changing the agent. If he cannot rely, he should relieve. At all events, he should so far presume upon the intelligence of his teachers as to free them from the feeling that they are set to do another's work in a way marked out by another's will. There are matters of form, mechanical in their very nature, in the attention to which the teacher may safely follow explicit directions; but one way is open, and no opportunity for choice can be given. These matters are, however, the least important of all. In the great work of the teacher,—the building up of the character of the pupil, and the fashioning of his style of thought,—there is ample opportunity for the exercise of diverse gifts; occasion for the use of individual power; ample field for the cultivation of the freedom of the teacher. No superintendent can afford to sacrifice the freedom of the individual teacher. He may counsel, but not direct; he must lead, but not control, except in that indirect way which is the outgrowth of a marked superiority. He who has the broadest views of the work of supervision will most surely exercise trust in the discretion of his teachers. He recognizes the possibility of different routes to the same end. He knows that variety in means best suits varying ability, and that freedom in the line of earnest service secures the best results. Hampering teachers with minute details as to the method of work, frets and hinders rather than helps. Manifest suspicion of indiscretion increases the probability of its existence. Trust encourages effort, and helps to establish proof of its worthy bestowal. It may be misplaced, but the remedy is simple a teacher who fails in discretion, after full opportunity for its free exercise, should not be left to trouble the superintendent, and to stand in the way of one capable of better service. But too hasty judgment is to be deplored; hence,—

3. *Patience is requisite.* The best service possible to a teacher is not always apparent upon first trial, nor in the first place obtained. It is unwise to condemn after the first failure; it may result from a mistake which in another and similar case may be, will be, corrected. Circumstances may be unfavorable, and an entire change will show that the failure was not in the teacher, but in her surroundings. There are those whose natural strength will carry them through all trials; others need such assistance for a time as favorable surroundings may furnish. With some there is a consciousness of power; with others, the power, but not the consciousness, exists. To the latter the encouragement of success, found by the application of the power to some slight resistance, develops the consciousness, and secures good results. With some, the power is yet in its germ, and needs the sunshine of a smile, the rain of kind advice, for its full development. Some of the best teachers of my acquaintance have been spared through the patience of their superiors. But patience "may have her perfect work," and forbearance may "cease to be a virtue;" still conscious inability will honor the superintendent's decision. His patience will not be simply enduring, but active in correcting faults with which he bears, and mercy will temper.

4. *Justice in dealing with the faults of his teachers as well as in his estimate of their merits.* Overpraise, misapplied praise, are as unjust as unmerited censure. In any body of teachers no one can monopolize all the excellences. "Faithful are the wounds of a friend;" they are the wounds made by a skillful surgeon, not to hurt, but to heal. To withhold friendly criticism and then to visit judgment for faults which might have been corrected, is the rankiest injustice. Such a course assumes that the teacher is conscious of her faults and willingly perpetuates them. If such wilfulness leaves no ground for assuming, but actually proves its existence after proper admonition, there is but one course for justice to pursue, and the guilty one will assent. If to the superintendent's human nature some favorites be essential, let them be selected from those

who have "organized victory" for themselves, who have come up "out of great tribulation." Such will have the good sense not to be damaged by favoritism. Better still, if he can so far overcome human frailty as to be the *fast* friend to merit wherever found, the *faithful* friend to faults in whomsoever they exist. Justice withholds not merited censure, confers not unmerited praise.

Frequent opportunities will be given for acting the part of a wise and just mediator between teacher and parent. In no other part of the superintendent's work will he need greater discretion. To make both parties, in a conflict of opinion, feel that he is a true friend whose decisions will always be just, demands experimental knowledge of the position held by each. One who has been a teacher, and who is a father, is best prepared for such a demand. A teacher's vocation inclines to self-assertion. A parent's love blinds him to the faults in his own children, even if it magnifies not the faults in those of others. An opinionated teacher, and a blinded parent, being given the conditions, are highly favorable to a first-class controversy. An *ex parte* hearing of such a case but widens the breach, and a hasty decision made upon the application of either party lays the superintendent liable to the charge of injustice. Let both sides be heard, and the point at issue be divested of all misunderstandings, and the case will settle itself to the satisfaction of both. My experience has convinced me that most controversies, cleared of all misunderstandings, are reduced thereby to a compass so small as to shame those who persist in attempting to stand upon it. The wisdom of the superintendent will be seen in curbing the teacher's vanity, and in curbing the parent's blindness.

Enough has been said indirectly, in previous articles, upon the need of a watchful eye over the interests of pupils in the hands of teachers who may be just with the best of motives. Self-interest sometimes may underlie great devotion to the interests of pupils. The system of grading teachers upon percentages obtained by their pupils is liable to gross abuse. It may be of use for purposes of private counsel, but unjust when made a basis of public award. There are many elements beyond the mathematician's determination which utterly destroy the value of his results. Another source of injustice is found in the publication of a list of promotions of pupils within some specified time, unless the time cover a period sufficient to permit the elimination of all temporary, incidental influences which may favor or retard the moving forward of pupils, with due regard to the mutual obligations of teacher, pupil, and parent, the superintendent will cherish.

5. *A spirit of helpfulness.* The larger experience can always be helpful in ways that will not abridge the freedom of the less. The work of instruction is shared by superintendent and teachers. He, the controlling spirit,—they, the active participants; he, the general,—they, the rank and file. Any corps of teachers is the stronger for their reliance upon their leader. His spirit of helpfulness will beget in them a spirit of comity, which shall bind them to their work as it attaches them more firmly each to the other. If a superintendent will *lead, show confidence in, have patience with, be just to, and wisely help* his teachers, he will find through their hearty co-operation assured success. Their obedience will be more cheerful as they recognize the ability of their leader. Their discretion will grow with opportunities for its exercise. Their shortcomings will be lessened through the notice taken of their good qualities, and the friendly overlooking of their faults. Reproof, even, will be the more welcome if they find their deserts are recognized. Their weakness will be made strength by timely assistance. The superintendent does his best work through devoted co-workers: devoted not to him, but to the work he is set to supervise.—*New England Journal of Education.*

WHERE ALL THE "JOHNS" COME FROM.

"And he asked for a writing-table, and wrote, saying, His name is John." That was shortly before the birth of our Saviour, and it would seem as though the tablet of old Zacharias had been kept in pretty constant use ever since. The name would have been appropriate even without the angelic injunction, for what more natural than that Zacharias and Elizabeth, who had no child—"and they both were now stricken in years"—should call their son by that Hebrew word which to them signified "the gracious gift of God?"

The name Jesus could not, without irreverence, be applied to their own children by his followers, but the names of the three persons who stood in the closest relations with Him—St. John Baptist, St. John the Divine, and Mary the mother of Jesus—became, and have continued to be to this day, the most common of any throughout Christendom. The name of John has had all the means of perpetuity that other names have had in the way of repetition in families from one generation to another, and it has been extended by the fact that there are many calendared saints who have borne it, after whom it has been customary to name children born on their respective days, and no doubt it was greatly extended by naming the babies of England after that King who gave *Magna Charta* to his barons at Runnymede, and, besides, John is a name to make good headway on its own merits; but, after all, the wonderful popularity of the name in all ages among Christian people must be accounted for by the fact that it was borne by those two, who, in considering the merely human nature of our Lord, stood to Him almost in the relation of elder and younger brother.

The name entered into all European languages, becoming Ioannes in Greek, Johannes in Latin; Giovanni, Gian and Gianni in Italian; Johann, Johannes, and Hans in German; Jehan in early and Jean in later French, Jan in Dutch and Ivan in Russian, and Evan and Owen in Welsh. In England it is found in the form of Jon, Jone, John, and Joon in the thirteenth and fourteenth centuries, and sometimes it got twisted into Jhon. The common English feminine forms are Johanna, Hannah, Joanna, Joan, Jane, Jenny and Janet.

Among the family names given in the Chicago Directory which are derived from these various forms of the name of John are the following: Bevan (ap-Evan), Bevans, Bowen (ap-Owen), Evan, Evans, Evanson, Hauck, Hancock, Hankin, Hankinson, Hanks, Hannah, Hannaway, Hannay, Hanson, Hansbrouge, Hanscomb, Hanstead, Hanstein, Hanoza and Hanszeyk, Jan, Janes, Jannay, Janson, Jeannot, Jenison, Jenkins, Jenkinson, Jenks, Jenner, Jenney, Jennings, Jack, Jackaway, Jackman, Jackson, Jacky, Jock, Johanson, Johnes, Jones, Johnjohan, Johnson, and Johnston. It has been said that plain John is not used as a surname in England, but our Directories show no less than twenty such, and of these two rejoice in the name John John.

The transmutation of John into Jack is sometimes said to have come through the French Jacques, but this is erroneous. Jacques does not represent the name of John at all, but is the Jacob of the Old Testament, the James of the New, and the Giacomo, Iago, and Jakob of European languages. We are all familiar with such diminutives as pipkin, manikin, and lambkin. The same diminutive termination is frequently added to names, and especially to nicknames. Thus, Simon is first shortened to Sim, and little Sim becomes Simkin, and hence the surname of Simkins. Thomas becomes Tom, and then Tomkin, which now appears in the shape of Tomkins. Walter becomes Wat, and Watkin and Watkins, and so John takes the form of Jonkin, Jankin, Jenkin, and Jenkins. But Jonkin and Jankin made pretty hard words for little mouths to speak, and so in the nursery they became Jocky and Jacky, just as Mary became Mally and Molly and Polly, and Sarah became Sally, and Martha became Matty and Patty, and Margaret became Maggy and Meggy and Peggy, in the same prolific region for the invention of new words. Taking up the children's Jocky and Jacky, the older people in colloquial use soon shortened them to the Jock of Scotland and Northern England, and the Jack of fiddle and Southern England and the United States.

John and Jack have served us not only as names for our babies, but they enter into the composition of names of unnumbered things of familiar use. Who is not happier and better for the immortal johnny-cakes of our mothers? What little boy could ever grow to be a big man without wearing his first jacket (equivalent to little jack) with two pockets in it? Meat-jacks, boot-jacks, and smoke-jacks are old friends, and so is jack-at-all-trades, and jack-an-apes, and the jack that is so much of a knave that he will sometimes fall on the king of trumps. A jack-knife is more precious than a Toledo blade, and about the only disreputable members of the family of John are the jockey who cheats in a horse trade, and then the yellow jack that desolates the land where he walks.—*Chicago Inter-Ocean*.

HOW TO TEACH.

Given a person well versed in general knowledge, and specially acquainted with the details of some particular branches, the problem which presents itself for solution here is indicated by the question, "In what way shall such a person impart to others the knowledge which he has won for himself?" It is clear that the answer resolves itself into two parts: first, as to the manner in which the teacher should arrange and prepare the various parts of each subject of instruction, so that the easy should come before the difficult, and every step be a preparation for that which is to follow it; and, secondly, that such plans should be adopted as will best tend to excite the attention of the pupil, and dispose him to exert all his mental powers in order to comprehend, to appropriate, and to assimilate the instruction which is being given to him. In selecting these plans, and still more in using them, the teacher should bear continually in mind that the communication of knowledge is to be employed as the means of improving and training the mental powers, and, where religious instruction is concerned, the moral emotions. . . . Young teachers, both in Sunday and day schools, ought to spare no efforts to become proficient in the art of questioning. We would recommend them to place written interrogatory exercises as a subject on their programme of evening studies, and to spend at least one hour a week in careful application to it. A good plan is to take a portion of scripture or secular reading lesson, and write down all the questions and explanations on paper which the teacher would deem it necessary to give were the class actually before him. These questions should be divided into the different kinds mentioned above, and the rules previously given should be carefully borne in mind. But this written exercise must on no account be slavishly followed when the lesson is actually given, nor should it be near at hand even for reference. As the questions given during the progress of the lesson must depend on the answers of the pupils, the teacher must not allow himself to be cramped and fettered in any way by his previously written exercise. At another time he may take some subject of instruction, as "the manufacturing towns of England;" arrange his ideas on it in the shape of written notes; and then write out the questions which would most likely be required to bring out the lesson in a natural and orderly manner, were the pupils really in his presence. In this way the young teacher would find himself growing continually in readiness and teaching power, and his pupils would reap the lasting benefit of his exertions.—*From Cassell's Popular Educator*.

Examination Questions.

COUNTY OF PEEL PROMOTION EXAMINATIONS, JANUARY, 1880.

D. J. M'KINNON, INSPECTOR.

Third Class—Promotion to Fourth.

READING.

(50) Third Book, page 18—"A gentleman——saw my business done myself."

SPELLING AND DEFINITION.

[On paper from Dictation—Five marks off for each error in the spelling.]

(100) They planted a rude cross of the knotty tamarack wood. Towards Penn and his followers they buried the war hatchet. He took off his big bearskin grenadier's cap. We were bounteously rewarded for our anxiety.

The goat violently opposed the entrance of the stranger. Professor Youatt, of the Royal Veterinary College. A royal lady, in one of the rush strewn halls of her rude English palace. The language of this nation seems unintelligible to a foreigner. Daubing it over with a greasy matter. You shall be strongly recommended to the Government.

- (50) II. Express in other words what you understand by "planted a rude cross," "buried the war hatchet," "bounteously rewarded," "violently opposed the entrance of the stranger," "Veterinary College," "The language seems unintelligible to a foreigner," and "daubing it over," in the above.

WRITING.

- (40) I. Third Book, page 309—"At Edmonton——at Ware."
(10) II. Three lines of the ten digits.

ARITHMETIC.

- (10) I. Find the difference between four hundred and seven times eight thousand and forty, and $3582267648 \div 48$ in factors.
(10) II. What number must be added to 765453 to make it exactly divisible by 765?
(6) III. Find the sum of LXXV times MCCXC and 25 times 705.
(15) IV. If the apple trees in an orchard are planted 30 feet apart, commencing at the end of each of 20 rows 690 feet long; and if a plum tree is planted in the row between each two apple trees, how many apple and how many plum trees in the orchard?
(15) V. If a horse eats 80 lbs. of hay in a day, how many days will 9 tons last 12 horses?
(15) VI. If a barrel of apples contains 2 bush. 3 pecks, how many barrels can be filled from 55 trees, each bearing 4 bushels?
(15) VII. If a farmer has a ten-acre field, how much more will he gain by growing barley, yielding 40 bushels to the acre, at 65 cents a bushel, than by growing wheat yielding 25 bushels to the acre, at \$1.10 a bushel, provided the cultivation of the wheat costs \$3 per acre more than that of the barley?
(15) VIII. What is the value of a pile of wood 36 feet long, 4 feet wide and 6 feet high, at \$3.50 per cord?

GEOGRAPHY.

[In answering questions II and III begin a new line with the name of each town, &c., to be located.]

- (10) I. [a] Draw a Map of the County of Peel,
(5) [b] Showing the Townships,
(6) [c] Tracing the Railroads and the River Credit,
(6) [d] And locating Brampton, Streetsville, Bolton, Alton, Cooksville and Charleston.
(20) II. In what Counties and on what railroads are the following towns respectively situated:—Brockville, Orangeville, Clifton, Guelph, Simcoe, Elora, Ingersoll, Port Hope, Ottawa and Barrie?
(28) III. What and where are the following:—Manitoulin, Chaleur, Miramichi, Cuba, Winnipeg, Panama, Chesapeake, Frazer, James, Assiniboine, Charlottetown, Maitland, Quinte, Keewatin?

COMPOSITION.

- (50) "The Power of Kindness"—Third Book, page 177.
[Teachers will read the lesson to the candidates, who will thereafter write its substance as much as possible in their own language.]

CANADIAN HISTORY.

[The following paper, copied *verbatim* from the last Christmas Examination Papers of a Western County Model School, is inserted for the use of such Teachers as may choose to avail themselves of it. It is not expected that any pupil who succeeds in other subjects will be rejected on account of failure in this.]

- (2) I. When and by whom was America discovered?
(2) II. To what persons did he apply for assistance, and with what result?
(2) III. How many voyages did he make, and when did he reach the mainland?
(2) IV. Explain how this continent got its name.
(2) V. What parts of America were colonized by Britain?
(2) VI. By whom was Canada first colonized, and what does the name "Canada" mean?
(2) VII. Give a sketch of three of the first explorers of Canada, and tell the names and positions of the first settlements.

- (2) VIII. What privileges had the "One Hundred Associates," and what were they to give in return for their privileges?
(2) IX. Give names and dates connected with the founding and taking (at different times) of Quebec.
(2) X. Give a brief account of Frontenac. Of what city did he lay the foundation?
(2) XI. Who were the U. E. Loyalists? How were they treated by the British Government?
(2) XII. What took place in 1791, 1759, 1867?
(2) XIII. Give a brief account of the rebellion of 1837?
(2) XIV. By whom are our laws made and administered?
(2) XV. What is meant by the "National Policy?"

GRAMMAR.

- (10) I. Define each of the following: Letter, Syllable, Word, Sentence, Proper Noun, Adverb, and give four rules for the use of Capital letters.
(12) II. Form two simple and two compound sentences each containing the word *horse*.
(20) III. Classify the words in the following:
"The flames rolled on—he would not go
Without his father's word;
That father, faint in death below,
His voice no longer heard."
(20) IV. Give the masculine of countess, hind, roe, lady, niece; the plural of penny, cuff, lady, miscer, deer; and compare old, near, ill, funny and dry.
(15) V. Divide the following sentences into Noun part and Verb part.—[a] Have you any money? [b] The sea, having spent its fury, became calm. [c] There was a lack of woman's nursing. [d] The boy, overcome with fatigue, soon fell asleep. [e] Sweet is the sound of the echoing horn.
(25) VI. Parse all the nouns and adjectives in the five sentences of the fifth question.

Notes and News.

ONTARIO.

There are 1,256 students at the Toronto night schools. H. L. Rice, B. A., has been appointed Classical Master in Galt Collegiate Institute.

Mr. Bellhouse has been elected Chairman of the Brantford School Board.

Lindsay High School has opened with a largely increased attendance.

Mr. James Wilson is the new Chairman of Kingston School Board.

The many friends of Professor Young will be glad to learn that he is again able to resume his duties.

An Association for the study of the Natural Sciences has been formed in connection with University College, Toronto. Graduates and under-graduates who are taking the honor course in Natural Science are eligible for membership.

Mr. James Bain has been elected Chairman of the Toronto Public School Board.

Mr. L. C. Peake, Secretary of the Toronto Central Sunday School Normal Class received the second prize at the examination at Chautauqua, in 1879. He was the only Canadian of nearly three hundred students.

J. W. Spencer, B. Sc., Ph. D., Science Master of the Hamilton Collegiate Institute, has received the appointment to the Chair of Chemistry and Natural History in the University of King's College, Windsor, Nova Scotia; his successor in Hamilton is R. B. Hare, B. A., Ph. D., a graduate of the "Vratislavienses," Breslau, Silesia. Dr. Hare, after graduating in Canada, spent four years in the University at Breslau, and devoted most of his time while there to the study of Science. The Rev. Principal Hare, of the Ontario Ladies' College, Whitby, is his brother.

Mr. McBride, Head Master of Port Perry High School, was recently presented with a silver tea service by his pupils.

At the Northern fair in the County of Middlesex, a large number of prizes were given for proficiency in the branches of study taught in the Public Schools. The highest prize was a gold watch.

The High School entrance papers were used in North Hastings as a test for promotion from the 4th to the 5th book classes.

On the evening of the 12th of Dec., the members of the Literary Association of the Orillia High School gave a very interesting entertainment, which passed off most successfully. The programme consisted of tableaux, songs and recitations, and ended with a laughable comedietta. The young people have now, by their own exertions, raised \$75 towards their library fund.

Mr. W. J. Briggs, B. A., who has held the position of Principal of the Smith's Falls High School for the last ten years, having resigned, his pupils presented him with an address, accompanied with a gold chain. The inhabitants of the village presented him with a well-filled purse.

Wm. McClure, B. A., McGill College, Montreal, gold medallist in Mathematics, prizeman in Chemistry and French, and first of his class, 1879, has been appointed Mathematical and Science Master of the Oshawa High School. Mr. McClure's college course was a remarkably brilliant one, and it is confidently expected that he will ably help to maintain the present excellent standing of the school of which he is now a teacher.

At the last meeting of the West Huron Teachers' Association the following rules for conducting uniform promotion examinations were passed:—1. That a Limit Table, showing the course of study for the various classes, be prepared, and that two copies be supplied to each school, one to be the property of the master and the other the property of the trustees. 2. That the examination questions for promotion in the various classes be prepared within the Limit Table, and that the value be assigned to each question by the parties preparing them. 3. That the examinations be conducted simultaneously and that each teacher preside at the examination of his own pupils, assisted by at least one of the trustees or some person to be named by them. 4. That each teacher forward to the Inspector, at least one month before the examination, the number of papers required by the various classes. 5. That the printed papers be sent to each teacher, and that the seals be broken by him in the presence of the pupils on the day of examination. 6. That each teacher examine the papers of his own pupils, but that two or more teachers in a township may combine to examine their papers together. 7. That each teacher forward the result of the examinations to the Inspector within three weeks from the examinations; and that promotion certificates be given to those entitled to them, signed by the Inspector and the master of the school. 8. That the examinations be held semi-annually, about the end of May and the beginning of December.

CHATHAM HIGH SCHOOL.—This institution is now (1880) in a more flourishing condition than it has been during any previous year, the average attendance having increased very greatly even over that of last year, which in its turn exhibited a wonderful improvement upon preceding years. Among other additions may be mentioned the Museum and Library, Mr. Wilkins, Mathematical Master, having placed his valuable collection of two thousand geological and mineralogical and eight hundred botanical specimens at the disposal of the trustees during his connection with the School; and Mr. Paterson, the Principal, and Mr. Hoople, Assistant Master, having contributed a large quota of books for the latter. Through the indefatigable exertions of the Principal and of Capt. Beaumont, Calisthenic Instructor, a drill shed and gymnasium have been built. To the former will be added, as soon as possible, an armory with an orderly room. The gymnasium will contain all the best and most modern appliances, and there will be added, as soon as possible, a bowling alley. Vocal music has, during the past year, received some attention, the students having on several occasions rendered operatic choruses, sometimes in costume, to the satisfaction of all present.

PICKERING COLLEGE, an institution endowed and maintained by the Society of Friends, but open to young people of both sexes, seems to be in a very prosperous condition. The object of the School is to secure to its students as thorough an education as can be obtained outside of a university or of a professional school, and at the same time to surround them with all the moral influences and guarded care of a well-conducted home.

The qualification for entrance into the College is the same as that required for High Schools and Collegiate Institutes, but there is a preparatory class for those not having passed the entrance examination.

The programme of studies for entered students is arranged with two main objects in view. First, to prepare students for passing the examinations annually held by the Department of Education, called the Examination for Third Class Certificates, and the Intermediate Examination, or Examination for Second Class Certifi-

ates, and secondly, to prepare students for passing the Examination for First Class Certificates, and also University Examinations of Junior Matriculation, Senior Matriculation, and the Examination for first year.

The School reopened for the Winter Term on January 8th, with an attendance just double that of its previous maximum attendance. Full classes are reading for the Entrance, Third Class, Second Class and First Class Examination of the Education Department, and also for the Junior Matriculation Examination of the University, and the Matriculation Examination of the Law Society and of the Medical Council. There is also a Commercial Form, in which the work usually taken up in Commercial Colleges, including Book-keeping, Theoretical and Practical, Commercial Arithmetic, and Business Forms, is taken up. This form is one of the largest in the College. The College has lately made an addition to its staff of teachers, Mr. B. F. Wood, First Class Grade A. Provincial Certificate, and Graduate of Brynau & Stratton's Business College of New York.

NEW BRUNSWICK.

From information received from various parts of the Province, we are pleased to learn that there is at the present time an un-wonted activity in educational matters, both in the towns and in the country districts. Whatever other causes may be thought to account in part for this activity, there can be no doubt it is very largely due to the action taken by the Board of Education, in October last, in inaugurating an improved system of School Inspection, and prescribing Courses of Instruction for the Schools. The classification of schools as being of the 1st, 2nd, or 3rd Rank, or as having failed to classify, and the apportionment of the Provincial grants to Teachers in part according to the Rank of their Schools, cannot but operate as a stimulus to the Teachers. Every Teacher will be more anxious than ever to have his or her school in good condition against the Inspector's visit. And it will not be, as some suppose, merely a temporary putting forth of energy, to lapse into indifference after the inspection is over; for the classification of the School depends upon the proportion of the pupils who are able to pass the required tests, and this depends upon the quality of the Teacher's work, week in and week out. That the adoption of the Course of Instruction will tend to improve the character of the work done in the Schools must be no less evident.

The Annual School Meetings, in all Districts in which such meetings are required, were held according to law, on the 8th of January, when Trustees were elected and moneys voted for carrying on the Schools.

The *Educational Circular*, No. 10, issued in January, contains several amendments to Regulations of the Board of Education, of which the following are the chief portions of general interest:

The Summer Vacation, instead of being "at such time or times as the Board of Trustees shall determine," is henceforth to begin, throughout the Province, on the second Monday in July, except when it falls earlier than the tenth of the month, in which case the Vacation will begin on the third Monday in July.

The Teachers' Institutes, instead of being each for "an Inspectorial District," are to be "County Teachers' Institutes." This is a change in name only, as each Inspectorial District heretofore consisted of one County. The Inspector is to be *ex officio* a member of the Committee of Management of each County Institute within his Inspectorial District.

An important change is made with regard to the issuing of Local Licenses. Previous to the passage of this Amendment, the Inspectors were empowered, under certain restrictions, to issue a local license of the Third Class (valid only in the School District for which it was granted, and only for one year unless renewed by permission of the Board of Education) to persons ineligible for the regular examinations for license, or desirous of engaging in teaching before the half-yearly examination. Under the amended regulation, a Local or District License may be issued by the Inspector, only in case the Board of Trustees of the District are unable to obtain a suitable licensed Teacher, and in case the Inspector then deems it necessary in the interests of the School service; such license will be valid only for one term or two terms (according as the person receiving it has or has not previously taught on a Local License in the Province), and will be granted only on condition that the person receiving it agrees, under guarantee, to attend the Normal School at the close of the term or terms. The Inspectors may also issue and renew licenses of the Third Class to persons qualified to act as class-room assistants, empowering them to act in that capacity only, and only in the School for which such licenses are

issued. "A person eligible for examination for School License, desiring to engage in teaching before the time fixed for the examination, may receive from the Chief Superintendent a license of the Third Class for the current term, on condition that such person undergo examination at the time fixed for the same."

The Westmoreland County Teachers' Institute will hold its third Annual Meeting at Dorchester, on the 12th and 13th February.

The time fixed for the Annual Meeting of the (Provincial) Educational Institute is nearly a month earlier than last year—viz., on the 13th, 14th and 15th of July.

It may not be known to many teachers that there is a revised and a greatly improved edition of the prescribed Drawing Books and Cards (Walter Smith's). In this new series, the books of which are numbered consecutively throughout, the exercises are simple, more progressive in their arrangement, and more nicely executed than in the former series. While both the paper and the execution of the work are improved, and the books are of about the same size as before, the price is not increased. The Board of Education has caused the following note to be inserted in the Course of Instruction as published recently: "The revised edition of the Cards and Drawing Books are to be secured when new Cards or Books are needed in the school. Where Cards or Books of the previous edition are on hand they may be used during the ensuing year." There is also a new edition of the Royal Reader, No. 1, containing a supplement, to which reference may be made in a future number of the JOURNAL.

NOVA SCOTIA.

The *Royal Gazette* announces the new arrangements for the Inspection of Schools as follows:

District No. 1.—The City and County of Halifax—Hinkle Congdon.

District No. 2.—The Counties of Lunenburg and Queens—Thos. R. Patillo, A. M.

District No. 3.—The Counties of Shelburne and Yarmouth—A. C. A. Doane.

District No. 4.—The Counties of Digby and Annapolis—Leander S. Morse, A. M.

District No. 5.—The Counties of Kings and Hants—Colin W. Roscoe.

District No. 6.—The Counties of Antigonish and Guysboro'—Roderick McDonald.

District No. 7.—The Counties of Cape Breton and Richmond—Alex. McKinnon.

District No. 8.—The Counties of Inverness and Victoria—John Y. Gunn.

District No. 9.—The County of Pictou, and that part of the County of Colchester not embraced in No. 10—David H. Smith, A. M.

District No. 10.—The County of Cumberland, and that part of the County of Colchester comprised by the District of Stirling and the townships of Economy and Londonderry—W. D. McKenzie.

As a rule, the Press of the Province, both secular and religious, refer to the above arrangements in commendatory terms. The *Chronicle* (Reform) hints that one appointment may have been dictated by political motives, while it candidly admits that the gentleman continued in office has proved himself a thorough good Inspector. The *Herald* (Liberal Conservative) states that "of the new Inspectors, the only one who has not previously filled that office is a Grade A teacher taken directly from the Schools, and that of the others, all with but one possible exception, were Public School Teachers before they were Inspectors." The *Presbyterian Witness*, *Wesleyan*, and *Christian Messenger* (Baptist) express general approval. The latter characterizes the movement as "a great advance."

It is stated on authority that the condition of accepting and retaining office is exclusive devotion to its duties.

The Senate of the University of Halifax met on the 6th of January, in the Legislative Council Chamber. In the absence of the Rev. Chancellor from indisposition, the chair was taken by the Vice-Chancellor, W. J. Stairs, Esq. The following members of the Senate were present, in addition to the Vice-Chancellor: Very Rev. Principal Ross, Rev. Principal Macknight, Rev. R. McDonald, Rev. J. Ambrose, Rev. E. M. Saunders, Hon. Judge Johnston, Hon. P. C. Hill, Hon. Senator Powell, Professor Higgins, President Inch, Dr. Honeyman, Dr. Lawson, the Superintendent of Education, Dr. Farrell, Dr. A. P. Reid, and Dr. R. S. Black. Much important business was transacted.

The following regulation regarding Text Books was adopted:

"Where several Text Books are in any subject suggested, candidates may read any one of them, or any group of them, as the case may be; but in all such cases the candidates be required to notify the Registrar at the time of transmitting their certificates of the Text Book or Text Books used by them, and the Registrar, in his notification to the examiners in their subjects, shall give a list of all the books used by the several candidates.

The following Committees were appointed: 1.—To appoint Examiners in Arts and Science: The Chancellor, Rev. President Dart, Professor Lawson, Dr. Allison, Superintendent of Education, Rev. R. McDonald, Rev. Principal Macknight. 2.—To appoint Examiners in Law: Hon. S. L. Shannon, Hon. Judge Johnston, Hon. L. G. Power, Hon. J. S. D. Thompson, Attorney General, the Chancellor. 3.—To appoint Examiners in Medicine. Dr. R. S. Black, Dr. A. P. Reid, Dr. Farrell, the Chancellor.

Rev. Principal Macknight, Rev. R. McDonald, President Inch, and the Registrar were appointed a Committee to report subjects of examination for 1880.

The Report on first B. A. Examination showed that the first prize had not been awarded. The second prize was won by Saml. C. Murray, of Mount Allison; the third by S. Dunn Scott, of Mount Allison; the fourth by J. M. Kercher, of Montreal.

The Report on the Second B. A. Examination showed that the only candidate had failed. Some discussion arose as to whether his protest against the decision of the Examiners should be read and considered. A resolution to do so prevailed, whereupon the Senate unanimously resolved to sustain the decision of the Examiners.

The Report on Second B. S. Examination was read, showing that the degree of Bachelor of Science, with a place on the First Division, had been obtained by A. H. McKay, Esq., Principal of the Pictou Academy and B. A. of Dalhousie College.

The Report on First LL. B. Examination was approved, as also that on Second LL. B. Examination, the Degree of LL. B. being conferred on Messrs. J. H. Sinclair, J. M. Oxley and W. E. McLellan.

The Report of the Committee on Presentation, recommending that a public presentation be held this year, was adopted, and Wednesday, September 11th, fixed as the day.

A motion of Hon. Senator Power to withdraw Chemistry from the list of required subjects, and place it as an option with History and one or more of the modern languages, was debated at length. The net result of the discussion was the appointment of a Committee, composed of the Chancellor, the Superintendent of Education, Senator Power, President Dart, Professor Lawson, and Dr. Honeyman, to consider the subject and report at the next meeting of Senate, as to the propriety of modifying the B. A. Course in the above regard.

The following were appointed a standing Committee on Text Books:—The Chancellor, Dr. Allison, Rev. Principal Macknight, Prof. Lawson, Hon. L. G. Power, Dr. A. P. Reid, Prof. Higgins, Rev. Principal Dart, President Inch.

The most interesting and spirited discussion of the Session took place on President Inch's motion to open up the privileges of the University to women. The proposal was strongly supported by Professor Higgins and the Rev. Mr. Ambrose. Senator Power spoke in opposition. Professor Lawson inquired if the Statutes of the University do really discriminate against women. Finally the Committee named below was appointed to consider the subject, and report at the June meeting of the Senate:—President Inch, Rev. Principal Macknight, Dr. Lawson, Dr. Farrell, Hon. L. G. Power.

It is understood that the first meeting of the Educational Association of Nova Scotia (see Official Department) will be held at the Normal School, Truro, on the 14th and 15th of July.

There are 119 enrolled pupils at the Provincial Normal School. Of these, one is working for license of Academic Class; thirty-three for Second Class, and the remainder are either working for Third Class, or without reference to immediate obtainment of license.

QUEBEC.

The *Blue Book*, containing the Report of the Superintendent of Education of the Province of Quebec for the scholastic year 1877-78, has lately been issued from the Department of Public Instruction. The volume is quite large, and full of interesting and instructive details on the whole Educational system of the Province. Its contents are:—the Superintendent's Report, addressed to the Provincial Secretary of the Province, with five appendices.

No. I. On Reports of School Inspectors:

No. II. On Normal Schools.

No. III. Monetary Tables—i. e., amount levied for Public Instruction in the Province of Quebec for the year 1877-78; and then follows a table of superior Educational Institutions for the same period, with amounts appropriated to them.

No. IV. Minor Tables—e. g., books sent to the School Inspectors to be given as prizes, number of pupils who have attended Normal Schools, limits of each Inspection District, salaries of Inspectors, &c., &c.

No. V. Minutes of the proceedings of the Roman Catholic and Protestant Committees of the Council of Public Instruction.

We shall confine our remarks in this article to the able, clear, and in not a few of its details, satisfactory Report of the Hon. G. Ouimet, Superintendent of Public Instruction. It is pleasing to have to note such progress as the following figures incontestably establish:—

Increase in School Municipalities over previous scholastic year,	18
do. in School Divisions,	40
do. in School-houses,	119
do. in Schools (under control),	94
do. in number of pupils,	2063
do. in average attendance,	1673

In reference to the new School-houses which have been erected, the Superintendent remarks. "I would direct attention, in particular, to the fact that the 119 new school-houses erected have been built upon plans supplied or approved of by me; it suffices to say, that of this number there are none to which the severe criticisms of the Inspectors can apply."

It might be supposed, on reference to the statistics, that, in respect to Academies and Model Schools there has been a falling off, but on this point the learned Superintendent says:—"I think it my duty to explain that it would be wrong to conclude from this circumstance that we have retrograded. In one of my past reports, and in my circulars, I have insisted on a better classification of our schools. I had perceived that several institutions, styling themselves Model Schools or Academies, were far from meriting these titles. Consequently, the Council of Public Instruction, in making the distribution of the Superior Education Fund, according to the Inspectors' reports, thought it right to increase the list of Elementary Schools, by curtailing that of Model Schools and Academies. In reality, therefore, there has been no diminution, but a rectification." There is further evidence of progress in the past scholastic year over the previous one in the great increase of pupils studying the principal subjects of the compulsory programme. That increase is very marked in the following subjects:—

In History,	5,532
" Arithmetic,	6,193
" Book-keeping,	1,758
" Geography,	4,852
" Agriculture,	2,960
" Mechanical Drawing,	12,563

These facts prove that the Province of Quebec is not stationary in the great work of Education, notwithstanding the great difficulties with which it is beset. The next subject referred to in the Superintendent's Report is School Inspection, and on this head there is no uncertain sound. The Superintendent speaks emphatically on the benefits and necessity of thorough School Inspection to the growth and efficiency of our educational system. "Without inspection," he says, "it is impossible to work a system of Schools any more than any other public organization." "The inspection bulletins are the new weapon placed in the hands of the Superintendent."

A specimen inspection bulletin is then given. "The Inspector," continues the Superintendent, "fills up his formula after his visit to each school, and, when he has completed his tour through a municipality, he is obliged to forward me, under cover, the bulletins of all the schools in such municipality. By means of this system, the Superintendent can always arrive at an understanding of the manner in which the local authorities fulfil their duties, and of the spirit with which they are animated."

The law requires that the Inspector shall visit each school in his district twice a year, and the Council of Public Instruction has laid down the principle that each Inspector should not have more than 100 schools to visit; "but," continues the Superintendent, "it has been necessary to depart from this principle, and a double visit is still an impossibility for more than one Inspector. There is, therefore, reason, I repeat, to increase the Inspection staff." With respect to the Inspection system itself, it only requires to be completed by the appointment of two general Inspectors.

After some remarks in regard to the Book Depository, the ques-

tion of Scholastic Exhibitions was taken up. The success of the Provincial Scholastic Exhibition at the last grand universal congress held at Paris is referred to with commendable pride, and all Educational Institutions throughout the Province of Quebec are earnestly recommended "to take measures immediately for contributing to the Provincial Exhibition, to be held next September at Montreal, or to a General Exhibition at Ottawa."

The Canadian Academy of Art, advocated by the Governor General last summer in a speech delivered before the Ontario Society of Artists, is said to be far in process of formation. A Constitution has been drawn up, and arrangements are in progress for holding the first annual exhibition at Ottawa during the approaching Session of Parliament. Subsequent annual exhibitions are proposed to be held in the cities of Halifax, St. John, Quebec, Montreal and Toronto.

Official Department.

NOVA SCOTIA.

The Council of Public Instruction has adopted the following Regulation, providing for the organization of an Educational Association under Provincial sanction and encouragement:

THE EDUCATIONAL ASSOCIATION OF NOVA SCOTIA.

The Superintendent of Education shall have authority to assemble annually in either Halifax or Truro, or at any other place which may be approved of by two-thirds of the Executive Committee hereinafter provided for, an Educational Association, whose object shall be to promote the efficient operation of our Public School System, and the professional improvement of its own members by the discussion of educational questions.

I. The Association shall be composed as follows:

1. The Superintendent of Education, the Principal and Professors of the Normal School, the Provincial Examiners for Teachers' Licenses, and the Inspectors of Schools, shall be *ex officio* members of the Association.

2. All members of the late (voluntary) Educational Association, all licensed Teachers, the Chancellor and Fellows of the University of Halifax, and the Presidents and members of the Faculties of the various Colleges affiliated therewith, may become members of the Association by enrolment and the payment of such fee (not exceeding one dollar) as the Association itself may determine.

II. The Association shall be directed as follows:

1. The Superintendent of Education, the Principal of the Normal School, and seven persons chosen annually by the Association from among its members, shall constitute an Executive Committee. This Committee shall have control of all funds raised by the Association, and shall appoint its own Secretary-Treasurer to receive those funds and disburse them under the direction of the Committee. The Committee shall also determine the days of the year on which the Annual Meeting of the Association shall be held, and the programme of exercises for each meeting (*vid. infra*, 6).

2. The Association shall appoint a Secretary, and, if necessary, an Assistant Secretary, who shall keep a record of the proceedings of each meeting, and forward a report to the Minister of Education.

3. The Superintendent of Education shall preside at the meetings of the Association and of the Executive Committee. At his request another member may preside, and in his absence the Association or Committee shall choose its own presiding officer.

4. The Superintendent of Education is authorized to use the Normal School Building and appliances for the meetings of the Association when they are held in Truro, and the Principal and Professors will aid to the extent of their power in promoting the success of such meetings. The Pupil-Teachers will be admitted to the exercises, but not as members of the Association, save when enrolled under Section I. 2.

5. Teachers can claim the same privileges in respect of attendance at meetings of the Association, as are given them by regulation in regard to attendance at District Associations.

6. The Superintendent of Education shall have, in respect to the first meeting of the Association, the power conferred on Executive Committee by I. 1.

ONTARIO.

On and from the 1st day of January, 1880, it is proposed to only allow thirty-three and a-third per cent on all sums appropriated by the Trustees for purchases from the Educational Depository or Booksellers.

S. P. MAY,
Depository Superintendent.

31st December, 1879.

Readings and Recitations.

LET IT PASS.

Be not swift to take offence ;
Let it pass !
Anger is a foe to sense !
Let it pass !
Brood not darkly o'er a wrong ;
Which will disappear ere long ;
Rather sing this cheery song -
Let it pass !
Let it pass !

Strife corrodes the purest mind ;
Let it pass !
As the unregarded wind,
Let it pass !
Any vulgar souls that live,
May condemn without reprove ;
'Tis the noble who forgive.
Let it pass !
Let it pass !

Echo not an angry word ;
Let it pass !
Think how often you have erred ;
Let it pass !
Since our joys must pass away
Like the dew-drops on the spray,
Wherefore should our sorrows stay ?
Let it pass !
Let it pass !

If for good you've taken ill ;
Let it pass !
Oh, be kind and gentle still !
Let it pass !
Time at last makes all things straight ;
Let us not resent, but wait,
And our triumph shall be great,
Let it pass !
Let it pass !

Bid your anger to depart ;
Let it pass !
Lay those homely words to heart ;
"Let it pass !"
Follow not the giddy throng ;
Better to be wronged than wrong ;
Therefore sing the cheery song—
Let it pass !
Let it pass !

—All the Year Round.

THE LESSON.

A teacher sat in a pleasant room,
In the waning light alone ;
Her head was bowed in anxious thought ;
With the work and care the day had brought,
She had faint and weary grown.
And the task that seemed light in the morning's ray.
As she thought of it now, at the close of the day,
When weary with toil, and faint with care,
Seemed more than human strength could bear.

Since the scholars had left her, one by one,
Nearly an hour had flown,
She had given them each a kind good night,
And while they lingered her eyes were bright,
But they dimmed with tears when alone.
She had borne the burden the day had brought,
The daily task she had faithfully wrought,
And now, to solace her weary mind,
A lesson of life she sought to find.

The work and cares of the day she scans,
But no lesson from them receives.
"The day had no lesson for me," she said :
"A lesson, I'll read in the Book instead,"
And she opened her Bible leaves.
When lo! the lesson she had sought in vain,
To draw from her fainting and weary brain,

At once from the holy page she drew,
Though always the same, yet ever new.

"Establish Thou the work of our hands ;"
'Twas this that met her gaze—
The words went up from her lips like prayer ;
And as she read she treasured there
A lesson for many days.
Not alone for her let the lesson be,
May it come as well to you and me.
Let our prayer be the words of holy writ,
"Yea, the work of our hands establish Thou it."

Exchange Department.

In this department questions submitted by teachers will be inserted, that they may be discussed by those who are desirous of either giving or receiving light in regard to them.

1. Is the word "ordinary" correctly used in the following sentence from Dr. Morell:—"An ordinary prosperous Englishman?"—*T. H. C.*

2. Should not the word "to" be replaced by the word "till" in the sentence, "To the middle of the 15th century?"—*T. H. C.*

3. Is the word "previous" correctly used in this sentence? "The raft into which the timber is formed previous to being floated down the river, etc."—*T. H. C.*

4. How should the voice be managed at the exclamation point when reading? In some cases should not the voice be allowed to fall at a period? as in this example:

"God! let the torrents, like a shout of nations,"

"Answer! and let the ice plains echo, God!"

Would it be a fault to let the voice fall at the end of the second line? The piece from which my example is taken (Hymn in the vale of Chamouni) has nearly every line ending with an exclamation point, and to my ear it does not seem well to keep the voice always on the rising inflection.—*M. D.*

5. How should "the while" be parsed in this example: "And tears are in her eyes the while she makes her humble plaint."

Should it be parsed as an adverb relative to makes, or as a noun (meaning "the time") and governed, by some preposition understood, as "during"?

6. In this example:

"If I could cry away mine eyes,"

"My tears would flow in vain;"

Should "If I could cry" be parsed as Subjunctive, Past, and "would flow" as Potential, Past? And in all cases is the presence of a conjunction before a verb sufficient to place it in the subjunctive, or must it express futurity as well as contingency?—*M. D.*

7. I would like some one to give the best methods of keeping school registers through the columns of the JOURNAL.

8. After examining "Mason's Grammar," I do not exactly understand when the auxiliaries *would*, *should*, *may* and *might*, of what is often called the potential mood, should be used as principal or as auxiliary verbs. I would be thankful to receive some light on this subject through the columns of the C. S. JOURNAL.

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.

WATERLOO.—The next meeting will be held in the Central School, Berlin, on the 30th and 31st January, 1880. Programme: Arithmetic, R. Alexander; Reading, S. S. Horner; Grammar, E. Ruby; Should the Provincial Teachers' Association be made Representative? W. F. Chapman; Is Provincial Uniformity in Text Books desirable? T. Hilliard; Chemistry, D. Forsyth; Essayists, Misses Gray and Young; Selection of time for next promotion examination. An hour for general business each day. Natural Philosophy (Moments), M. Hallman. Question Drawer. On Friday evening Jas. Hughes, Esq., I. P. S., Toronto, will deliver a lecture in the Town Hall on the Kindergarten, and on Saturday will take up Industrial Drawing, Phonio Reading and Object Lessons. C. B. LINTON, Secretary. R. ALEXANDER, President.

THURSDAY.—February 5th and 6th, 1880. Thursday.—10 a.m., Roll Call and Reading Minutes, Correspondence. Appointment of Committees. 11 a.m., Address, Mr. P. Jordan. 11:30 a.m., Teachers' Library, Mr. A. C. Smith. 1:30 p.m., "The Teacher," Mr. O. Castleman. 2 p.m., "Township Boards," Mr. A. Brown, I.P.S. 2:30 p.m., "School Law," Mr. A. Allison, Jr. 3 p.m., "Drawing," Mr. L. Welch. 3:30 p.m., Questions, Drawer. Friday.—10 a.m.,

"Geography," Mr. A. C. Casselman. 10 30 a.m., "Grammar," S. Woods, Esq., Kingston. 11.30 a.m., "Grammar," Mr. A. H. Woogant. 1.30 p.m., "Arithmetic," Mr. A. A. Whitaker. 2.30 p.m., "Competitive Examinations," 3 p.m., "Partial Payments," Mr. W. H. Irvine, B.A. 8.30 p.m., Question Drawer. S. Woods, Esq., M.A., late Rector of Coll. Institute, Kingston, will deliver his popular lecture on the "Life and Times of Goldsmith," on Thursday evening, February 5th, 8 p.m., in Merkey's Opera Hall.
A. BROWN, President. IRWIN STUART, Secretary.
Morrisburg, Jan. 15, 1890.

NORTH PERTH.—Semi-annual meeting in the Central School, Listowel, on the 20th and 21st days of February, 1890. *Programme*.—1. Natural Philosophy, J. Crozier, B.A.; 2. Introductory Algebra, J. Draper; 3. English History (4th Class P. S.), D. D. Ellis; 4. Reading by Convention (The Prairies), page 49, IV. Book, B. Rothwell; 5. Physical Science as an Educator, R. A. Coleman, B.A.; 6. Pupils' Reports, S. Ranton; 7. Mode of Conducting Promotion Examinations, R. Muuro; 8. Analysis of Gray's Elegy by Convention, page 356, IV. Book, J. Wilson, B.A.; 9. Geography of British Empire, S. J. Kilpatrick; 10. Shall the Provincial Association be made representative? H. Dickenson; 11. Election of Delegates to Provincial Association. An Entertainment on Friday evening. Return tickets on Stratford & Huron R'y at one and a third fare on presentation of Secretary's certificate at beginning of journey. Teachers are requested to bring Fourth Readers, and are expected to come prepared to discuss the above programme, especially subjects 4 and 8.
R. ROTHWELL, Pres., Listowel. H. DICKENSON, Sec'y, Stratford

WEST VICTORIA.—The teachers of West Victoria held their half-yearly meeting at Woodville on Dec. 29th and 30th, 1879.

In the absence of Mr. Wood, President, Mr. Reazin, Inspector, was moved into the chair.

Mr. Cundal opened the Convention by discussing the subject of Arithmetic. Mr. Gilchrist, of Woodville, then gave a lesson on Grammar. His lecture was very interesting. In the afternoon, Mr. Reazin explained his method of introducing reading; to junior classes; this called forth considerable discussion. Mr. Dobson, of Lindsay High School, then gave some useful hints on factoring in Algebra, after which Geometry was discussed by Mr. F. McEachron; both gentlemen evoked considerable discussion. In the evening Mr. Dobson gave a very instructive and interesting lecture on "Canadian Literature" to a very large and attentive audience.

On the second day, Mr. Knight, of East Victoria, read an essay on Composition, and Mr. Shaw, of Omamee, read one on Prosody. Each gentleman treated his subject in a masterly manner. At the close of the business of the Convention, the following motion was made, which met the approbation of all present. Moved by Mr. Cundal, and seconded by Mr. Gilchrist.—That this Convention very much regrets that Mr. Dobson is about to leave our midst; and as he has always cheerfully rendered us material assistance at our meetings, the thanks of this Convention are tendered to him. Although the Convention was held during the holidays, it was a decided success.
JOHN CUNDAL, Secretary.

EAST KENT.—The Association met in Ridgeway on Friday, October 31st and Saturday, November 1st, 1879, with the President, Mr. Masales, in the chair. There was a large number of teachers present, who entered into the discussion of the subjects on the programme with lively interest. An excellent essay on "Consecutive Thought" was read by Mr. Masales. The essay will be published. "Amusements in Public Schools," by Mr. Ward, called forth remarks from the majority of the fraternity present. "Geography" was taken up by Mr. Fraughton, who treated it in his usual lively manner, Mr. McGillivray followed with "Factors and Multiples in Arithmetic." "Studies in Public Schools" was next discussed, and a resolution was passed that this Association concur with the resolution relating to optional subjects on second class programme passed by the West Bruce Teachers' Association at their last meeting. "Prizes in Public Schools" was taken up by Mr. Harrison, I. P. S., who was followed by several teachers. An entertainment was given by the teachers on Friday evening in the Porter Opera Hall.
WAL. S. McBRAYNE, Secretary.

REVIEWS.

THE WINTER'S TALE. Edited, with notes, by Wm J. Rolfe. New York: Harper & Brothers. The preceding volumes of Rolfe's school edition of Shakespeare's plays have been highly commended by the most competent critics of the day. The *Winter's Tale* is quite equal to the other volumes of this excellent series, and is in every respect admirable. The introduction, the critical comments and notes are just what they ought to be for the purposes of the school-room, and render the volume equally acceptable to the general reader, whether his taste inclines to linguistic or æsthetic criticism. We heartily recommend the work to the student, the teacher, and the general reader.

AN ELEMENTARY GREEK GRAMMAR. By William W. Goodwin, Ph. D., Eliot Professor of Greek Literature in Harvard College. Second Edition. Boston: Ginn and Heath, 1879. Pp. xxviii. and 393, octavo. This is a piece of scholarly work done by a competent man. In the etymological

part the author follows the *Schulgrammatik* of Crotius closely. The syntax of the moods and tenses is very good. Other valuable features are: A catalogue of the verbs used in classic Greek, which present difficulties to the learner on account of peculiarities in their conjugation; a short but good account of Greek versification, and full indexes. Judgment has been displayed throughout in the arrangement and selection of the matter. The printers have done their part well. On the whole, we are not acquainted with any better Greek grammar of the same size.

A SYSTEM OF MORAL SCIENCE. By Laurens P. Hickok, D.D., LL.D. Revised with the co-operation of Julius H. Seelye, D.D., LL.D., President of Amherst College. Boston: Published by Ginn & Heath, 1890. pp. 298, octavo. This is a revised edition of a college text-book which has been in use for twenty-five years in the United States. We pity the students who have been compelled to study it. In the first place, the language used frequently lacks clearness, and is sometimes ungrammatical. Then the proportion which reasoning bears to assumption throughout the volume, reminds us of the ratio between Falstaff's meat and drink—"but one half-ponnyworth of bread to this intolerable deal of sack." Again, some of the few attempts at reasoning it contains are rendered invalid by confusion of thought.

"The ultimate Rule of Right has been deemed obscure to some, and thought to involve a self-contradiction by others, but which is now so presented as scarcely to admit of partial or mistaken apprehension."—*Preface to the Revised Edition.*

"Widely different and very conflicting theories have been advanced; and as this is so fundamental for the science of morality, the system has of course received its whole character from its foundation-principles."—*Page 23.*

The redeeming features of the work are that the printers have done their part well, and that it gives a tolerably fair account of what we ought and ought not to do.

THE TEACHER'S HAND-BOOK OF ALGEBRA; containing *Methods, Solutions, and Exercises illustrating the latest and best Treatment of the Elements of Algebra*, by J. A. McLellan, M.A., LL.D., High School Inspector for Ontario. When some months ago it was rumored that a mathematical treatise was being prepared by Dr. McLellan, scepticism existed as to the extent to which even he could impart freshness to so threadbare a subject as elementary algebra. The book has appeared, and the scepticism has disappeared. We venture to say that neither in England, the United States, nor Canada has a work been published covering the same ground in which will be found so much originality, such elegance of methods and such vigor of treatment; in either of the former countries, if properly introduced, the book will be in as great demand as in our own. It is not a formal treatise on Algebra, but consists rather of a series of essays on branches of the subject which are of great importance, but which are strangely ignored in all other text books. The first four chapters are on Substitution and Horner's Division, Symmetry, Factoring, Measures and Multiples; the fifth and sixth are on Equations; and the last consists of a collection of miscellaneous examples. The short and refined methods which add so much to the interest of the subject and to its value as an instrument of mental training, but which heretofore have been known only to our best teachers, will be found in some part of the book. As one amongst many examples of elegant reasoning we recommend our readers to page 87. Some of the neatest solutions we have had the pleasure to meet we found in Chapters V. and VII. The chapters on Symmetry and Factoring mean a fresh intellectual life in mathematics to those who have not enjoyed the advantages of having the best instructors. The work is perhaps but the natural product of the great revolution in the mathematics of our High Schools which has taken place within the last few years, and which Dr. McLellan has done so much to bring about. Half a dozen years ago such a publication would have been out of place in Canada. Examiners received any solution of a problem, and were glad to get it; but now, and especially in Algebra, every competent examiner will distinguish between a candidate whose answers are marred by neatness and elegance, and one whose awkwardness almost destroys the merit of being right. Dr. McLellan's work should be in the hands of all teachers of mathematics, and in

those of their senior pupils. All candidates at the examinations for Teachers, and the Intermediate and Matriculation Examinations, should be acquainted with its methods.

MAGAZINES.

THE CONTEMPORARY REVIEW for January has been received from Strahan & Co., Paternoster Row, London, and contains: "England in the Eighteenth century," by Karl Hillebrand, an able vindication of the much calumniate 18th century, which the writer considers "the most truly human and fruitful of all the ages"—an "era of increased political liberty, of revival in literature, and of remarkable religious development. In "Landlords and Laws," Professor Blackie discusses, with characteristic eloquence and force, some of the burning questions connected with landed property and the ownership of the soil. He argues that no man "is, by the law of nature, entitled to make a testament so as to have it respected after his death." The general tenor of the article is in condemnation of "large properties," and certainly the Professor makes out a very good case. "Justinian," by Robert Buchanan, is a poem that all will read with interest. The lesson of the poem, taught by no feeble poetic power, is that pure rationalism is unable to satisfy the deep yearnings of the soul, notwithstanding its announcement that

"Pan and Apollon and great Zeus are dead,
And Jesus Christ hangs cold upon the cross.
Nay more, the light of Science newly born
Hath slain the night of the Divine Idea.

Henceforth a grievous shadow gaits the earth,
While men, the fruits and the flower of things,
Walks fetterless and free."

"Herbert Spencer on the Data of Ethics" is an able criticism, by Professor Calderwood, of Spencer's "Data of Ethics." The other articles are: "The Letters of Charles Dickens," by Matthew Brown; "The Character and Writings of Cyrus the Great, in connection with a recent discovery," by Canon Rawlinson; "The Relation of Animals and Plants to Time," by Professor Mivart; "The Chinese Drama," by Robert A. Douglas; "Philosophy in the last Forty Years," first article, by Professor Lotze; "Contemporary Life and Thought in Italy," by Signor Roberto Stuart. On the whole this is a most able and interesting number of a periodical which has few equals and no superiors.

THE NORTH AMERICAN REVIEW has been received from D. Appleton & Co., N.Y. It contains: "The Catholic Church and Modern Society," by Cardinal Manning; "The Third Term," by T. V. Houx; "M. De Lesseps and his Canal," by Rear-Admiral Daniel Ammen; "Now and Then in America," by G. A. Saba; "The Emancipation Proclamation," by James C. Willing; "Recent English Books," by Mayo W. Hazeltine.

THE WESTERN, January-February, has been received from the publishers G. I. Jones & Co., St. Louis. "My Lorelei" is an interesting story by Octavo Thanet; "Women as Architects," by Martha N. McKay, considers how much women are needed and what they can do as architects, it a thoughtful and suggestive article. In "The Spelling Reform," M. B. C. Truo utters some wholesome truths which the advocates of the so-called "reform" would do well to ponder; "Nagasaki," by Wm. M. Bryant, is a very readable account of a Buddhist drama of that name. There are, besides, Book Reviews and Current Notes.

THE JOURNAL OF SPECULATIVE PHILOSOPHY has been received from G. I. Jones, St. Louis. Its contents are: "Kant a Critique of Pure Reason," criticised and explained by himself, by A. E. Kroeger; "The Method of Thought," by Meeds Tutill; "Professor Carl on Kant," by Dr. Stirling; "Kant's Deduction of the Categories, with special reference to the views of Dr. Stirling," by Prof. Caird; "Notes and Discussions and Book Notices." We can confidently recommend the Journal not only to students of Philosophy, but to all who wish to keep "posted" on the very latest phases of speculative philosophy.

The February number of the *Atlantic Monthly* contains, besides 144 pages of the usual interesting *melange* of poetry, prose, fiction, history, criticism, and miscellaneous essays, a supplement of 24 pages, which is filled with an account of the breakfast given by the publishers of the magazine in honor of the seventieth birthday of Oliver Wendell Holmes. This entertainment appears to have been a great success, and the poems and speeches are well worth reading. Dr. Holmes's poem, "The Iron Gate," read in response to the toast of "The Autocrat of the Breakfast Table," is a remarkable production for a man of three score years and ten. Among the other contents is an able, readable and very instructive article on "Pessimism," by Goldwin Smith, which is likely, we fancy, to prove distasteful to the official defenders of the "established creed." Mr. Howells' novel, "The Undiscovered Country," continues to increase in interest. The remaining articles are exceedingly interesting.

THE ENGLISH PRIMITIVE METHODIST MAGAZINE comes to our table with an inviting and varied bill of fare. As may be seen by its topics, the reader has much to stimulate his intellectual and enrich his spiritual nature. The January number is adorned with a portrait and several engravings. "Councillor Kerwood's Investment and what came of it" is a very readable article, by the Rev. George Law. George Warren has his fifth chapter on "Revivals of Religion," which is written with great ability. Many will be interested in the "Historical Setting of Select Hymns."

SUNDAY AT HOME, with its brief but beautiful homily for each Sunday in the month, will afford suitable matter for meditation to such as are prevented from attending the ministrations of the house of God, while it cannot but be read with delight by a much larger class. We have only glanced at a few of the many subjects contained in this useful monthly.

APPLETON'S JOURNAL for February contains "A Stroke of Diplomacy," from the French of Victor Chorbulez (conclusion); "The Comedy Writers of the Restoration;" "Miracles, Prayer, and Law," by J. Boyd Kinnear; "Life in Brittany;" "The Seamy Side," by Walter Besant and James Rice; "Teaching Grandmother—Grandmother's Teaching," by Alfred Austin; "The Russian Gypsies," by Charles G. Leland; "First Impressions of the New World," by the Duke of Argyll; "Editor's Table" and "Books of the Day."

THE POPULAR SCIENCE MONTHLY.—The February *Popular Science Monthly* is of rare excellence, its invoice of fresh scientific discussion is most attractive, and in real instructive essays puts it beyond all its competitors. The first article, on "The Origin of the Criminal Law," by William W. Billson, will be equally interesting to lawyers and to the public. It is a striking chapter in the science of social progress, and brings out a view as novel as it is important. The second paper, illustrated, on "Laporte's World of Plants before the Appearance of Man," develops a new view of the relations of primitive life, which is of remarkable interest. "How Typhoid Fever is Conveyed," by Dr. T. J. MacLagan, is a sanitary discussion of great moment to all households. One of the most charming papers in this number is by Walter Nordhoff, on "Hauverian Village Life." It is a vivid picture of the quaint and curious usages that continue as they have gone on for centuries in the social organism of a primitive German community. "Maps and Map-making before Mercator," by Judge Daly, President of the American Geographical Society, is a very instructive essay on the early progress of geography and the art of its representation. It is full of good illustrations. Dr. H. Carrington Bolton gives an instructive account of "Ancient Methods of Filtration," which will attract all interested in chemistry and the development of the arts. Professor Bain closes his analysis of the character and works of Mill, and Dr. S. Austen Pearce contributes an important paper on the science of music, under the title of "Imperfections of Modern Harmony." "Daylight in the Schoolroom," "Hygiene in the Higher Education of Women," by Dr. A. Hughes Bennett, and "Artisan Wells and the Great Sahara," by Lieutenant Scroeder, are papers of equal and varied interest, as are also "The Origin of the Gypsies," and "Prehistoric Records." There are a sketch and portrait of Professor Benjamin Silliman and the editorials and popular miscellany are unusually full and attractive. The conductors of this valuable periodical seem determined to keep the lead in their supply of entertaining and substantial reading for the people.

HOW THE EARTH WAS FIRST MAPPED OUT.

What these early maps were we do not know, but can form a reasonable conjecture. The earth at that time was supposed to be a flat circular plain, or disk, the broadest part being from east to west, which was entirely surrounded by an ocean, or great river, that washed it upon all sides. In about the centre of this plain Greece was supposed to be situated. The great central sea of the inhabited region was the Mediterranean. The farthest point known at the west was the Straits of Gibraltar, then called the Pillars of Hercules. The southern part comprised the north of Africa as far as the deserts, while the region north embraced the countries bordering upon the Mediterranean, and an unknown hyperborean land farther to the north, with the Euxine and Caspian Seas at the northeast. The farthest eastern point known was about the western limit of India. This was what would then be contained in a map as a representation of the earth. The sun was supposed to pass under and around this flat plain, which was then the mode of accounting for the changes of day and night. The space beneath was supposed to be a great vault, called Tartarus, the abode of the spirits of the wicked among men, as the region corresponding to it, above the plain, was the heaven, or abode of the gods. The unknown regions beyond the Pillars of Hercules was filled up with creatures of the fertile imaginations of the Greeks. To the northwest and north were the Cimmerians, a people living in perpetual darkness; and the hyperboreans, a race supposed to be exempt from toil, disease, or wars, who enjoyed life for a thousand years in a state of undisturbed serenity. To the west of Sicily were the enchanted islands of Circe and Calypso, and the floating island of Eolus. A little to the north of the Pillars of Hercules was the entrance to the infernal regions; and far out in the Western Ocean, beyond the limits of the known earth, was the happy region called Elysium, a land of perpetual summer, where a gentle zephyr constantly blew, where tempests were unknown, and where the spirits of those whose lives had been approved by the gods dwelt in perpetual felicity. Here, also, were the gardens of the Hesperides, with their golden apples guarded by the singing nymphs, who dwelt on the River Oceanus, which was in the extreme west, and the position of which was constantly shifted as geographical knowledge increased.—From "Maps and Map-making before Mercator," by Chief-Justice Daly, in *Popular Science Monthly* for February.