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I love to wander through the woodlands hoary  
In the soft light of an autumnal day,  
When summer gathers up her robes of glory  
And like a dream of beauty glides away.

SARAH HELEN WHITMAN.

**Articles : Original and Selected.**

CONSOLIDATION OF THE DISTRICT SCHOOLS

“The district-school system makes possible the poorest teaching in the market. It is not an unheard-of plan to elect “a committee” pledged in favour of one neighbour’s daughter as teacher for one term, another for a second, and some other spinster for a third. While teaching in north-western New England, I found it very difficult to keep the girls in school after they could squeeze through a weak examination qualifying them as country teachers. Cheap teachers are the curse of rural schools. But consolidation stops this. It puts the country on a level with the city. It permits better grading and allows individual pupils wider range, so that they can work to better advantage. It makes possible thorough work in special lines—nature study, writing, music, drawing. It adds the stimulus of competition and the enthusiasm of numbers. The attend-

ance is better, and the boys stay in school longer. It has a reflex influence on the inhabitants of the town, and quickens public interest in the schools.

In 1869 the Legislature of Massachusetts enacted that "any town in the Commonwealth may raise and appropriate money to be expended by the school committee at its discretion in providing for the conveyance of pupils to and from the public schools." As one of the early results of this legislation a rural town reports :

For eighteen years we have had the best attendance from the transported children. We have saved the town at least \$600 a year. All the children attend well equipped school-houses at the centre. The schools are graded and everybody is converted to the plan. This is a large town with many children to be transported, and their conveyance has been expensive.

The town of Warwick is seven miles long by four or five miles wide. Its 102 pupils now attend a graded school, in a neat, well appointed house, at the centre, the children being conveyed at public expense. In six years the town has lengthened its school year fifty per cent. ; has increased the teachers' salaries seventy-five per cent. ; has employed special teachers of drawing and music ; has improved the quality of instruction ; and has reduced the cost of the whole. These two examples tell what many other Massachusetts towns are accomplishing, even under less favorable conditions.

In 1895 the town of Buffalo Centre, Iowa, formed a school district embracing the entire township, six miles square, and erected a building of eight rooms at the village, a mile from the west boundary of the town. The closing of the sub-districts was tentative and gradual. But in April, 1899, the school board, noting the success of the venture, closed all the rural schools but the two extreme corner ones ; contracting for the conveyance of children from the four closed districts to the central school at the village. The two rural schools not closed are under the supervision of the principal of the central school, and are continued the same length of time each year. Six contracts were made for conveying the children for 1900-1, each covering one of six routes. An official report states :

The distance the children most remote from the central school, on the different routes, are conveyed is as follows : Route 1, three and one-fourth miles, Route 2, four and one-half miles ; Route 3, five and one-half miles ; Route 4, five and three-fourths miles ; Route 5, five and one-half miles ; Route 6, six and one-fourth miles. The average distance the children are conveyed on the longest route is about four miles.

This is one of the newest counties, and the roads are poorer than in older sections. When the roads are very muddy the drivers begin to collect children as early as 7.15 to 8.15 A.M., returning them to their homes at 4.45 to 5.45 P.M. The contractors are held to careful restrictions. They must furnish suitable covered vehicles, safe and strong, with comfortable seats ; strong, safe, and quiet teams, with proper harnesses ; " warm, comfortable blankets or robes sufficient for the best protection and comfort of each and all of the pupils to and from the public-school building and their respective homes "—all to be subject to the inspection and approval of the school board. They must arrive at the school-house not earlier than 8.40 A.M., or later than 8.45. They must personally drive and manage their own teams ; they may not drive faster than a trot, nor race with others ; they must conduct themselves properly, refrain from improper language in the presence of pupils, and from the use of liquor or tobacco ; and they must " keep order and report improper conduct on the part of scholars."

For the year ending 1894, this town maintained six district schools for six months, with an average daily attendance of 90 ; " for the year ending September 1900, eight teachers were employed nine months, and the average daily attendance was 290." In 1894 the total expenditure for all school purposes was \$5.03 per pupil per month ; in 1900 it was but \$2.31. Not only has this centralization given rural children a graded school in charge of well-qualified teachers, with a school year increased fifty per cent., and at much less cost, but it has made the pupils more punctual, has brought the attendance from 90 to 290, and has had a tendency to hold the larger boys in school. Of all the sub-districts in Iowa, 2,577 have not more than ten pupils in daily attendance."—C. E. BLAKE in *The Forum*.

## SOME HISTORICAL POINTS ON ARITHMETIC AND THEIR BEARING ON ITS TEACHING.\*

When one contemplates giving to the public his ideas on any given subject he should first consider whether the public will be benefited by those ideas. Now, if we ask the question, How can the teacher of arithmetic be benefited by a study of its historical development? the answer may be given that the world has learned in much the same way as the child. In the language of David Eugene Smith, "What has bothered the world usually bothers the child, and the way in which the world has overcome its difficulties is suggestive of the way in which the child may overcome similar ones in his own development."

The child's arithmetic should grow as the arithmetic of the world has grown. Do not understand me to say in the same way, however; that would be stupid, indeed, for it would dispense with the teacher entirely; and such a plan would subject the child to the same slow process in his arithmetical development that the world of necessity was subjected to in the developing of the subject. It would exclude all possibility of profiting from the experience of others. We do say, however, that the same *general* path that the world took in developing the subject should be very suggestive to the alert teacher. Lightning takes the path of least resistance. The world, unguided in its almost unconscious development of arithmetic, has, in the main, traced a path which in the light of psychology, has proven to be the path of least resistance.

The teacher of to-day has been compared to a traveler who, by much toil, has reached an eminence, and before going farther stops to rest and look over the ground he has travelled. He sees here and there where he might have done better by taking a short cut, or finding a smoother path. So a study of the development of arithmetic may be a lamp unto our feet as we attempt to guide the child, as it grows in its arithmetic. By its study we may place ourselves upon the mountain, out of the winding labyrinths and difficult passages through which we were dragged, as

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\* By Mr. Seth Harvey, teacher of mathematics in the State Normal School, Valley City, N. Dak.

we, with our teacher, laboriously followed the text-book. We shall be enabled to select the good and reject the bad. We can see how *many* chapters have crept into the arithmetic because of conditions which have long since passed away, and see how nearly alike the barriers to progress in the centuries that have passed are to the barriers to progress with which we are now confronted.

But one cannot even in a book of many pages give anything like a comprehensive review of the historical development of arithmetic. De Morgan (1806-1871), one of the most eminent of English mathematical writers, published a catalogue entitled *Arithmetical Books*. This catalogue is a list, with critical notes, of the important arithmetics in his library, and makes a goodly volume of one hundred and fifty-four pages. This gives us some idea of how extensive a complete review of the subject would be. In this paper only a glimpse here and there is all that can be expected, especially if we take space to discuss any of the conclusions. It is hoped that the perusal of these lines will act as an incentive to some teacher to a more thorough study of the subject for himself.

#### THE BEGINNING OF ARITHMETIC.

Arithmetic has its beginning with the origin of number, and number has its origin in the measuring of quantity. The measuring of quantity began when the savage wanted to know how many suns it was to the next camp; or, when it ceased to be a question of one group of warriors being larger than another, and began to be this group has five warriors and that has seven; or, when an ax is worth not a handful of arrowheads but a definite number of them. In other words, arithmetic began with counting, and how far back this operation dates no one can tell. If everything we need could be had for the asking, there would be no careful measuring of quantity, and consequently, no such thing as number in the strict mathematical sense. But at no stage in the history of the human family do we find such to be the case. The necessities of life are all limited, and can only be had through activity. This requires energy. Our energy is limited, which calls for a careful adaptation of means to the end in view. This requires measuring; and the unit (evidently not necessarily a "single thing")

may be a "sun," two savages, seven arrowheads, or the distance to the moon, according as the problem in hand may require.

But counting as we now do is comparatively recent. The primitive savage could only say one, two, three, "heap;" just as the child says one, two, three, "lots." It was a long struggle to know number up to ten; hence the necessity of having a well-regulated system for naming numbers above ten. Our base for counting is ten. It is evident we might take any other base as five, twelve, or twenty. The reader may decide what objection there would be to five and twenty, and why twelve would have been better than ten. It is interesting to note that in the book of *Problemata*, attributed to Aristotle, the question is asked, "Why do all men, both barbarians and Hellenes, count up to ten?" Along with many absurd answers is found the true answer, "Because all men have ten fingers." If man had not had ten fingers we should have some other base for counting, and we should not have our decimal system; all owing to the fact that man learned to count by using his fingers. This is agreed to by all. Now, if fingers were of such assistance to primitive man in the developing of the number series, what may be said of the child of to-day using his fingers for the same purpose? Evidently the first thing for the child to learn is the number series up to ten. He should be permitted to assist himself by the use of objects; they should be unattractive and familiar; nothing better than his fingers. The world mastered the difficulty in this way; the child should be permitted to do likewise.

#### SECOND STEP—CALCULATING.

The next step the world took was calculating—the simplest operations. This the child should be led to do, making, of course, no combinations higher than ten. When the child has found that two pieces of chalk and two pieces of chalk make four pieces of chalk, or that two fingers and three fingers make five fingers (by whatever method he may choose), then he should be held responsible for those combinations and be given drill in them. In the same exercise would come subtraction, incidentally. Now representing each piece of chalk or the fingers, by dots or marks, since he

has been doing rational work in his oral adding and subtracting, the child may be shown how it may be represented, thus:  $\dots + \dots = \dots$ , or  $\dots + \dots = \dots$ . Following this would come  $\dots - \dots = \dots$ , or  $\dots - \dots = \dots$ . When the child by the handling of objects (guided by the teacher) has discovered that three objects taken twice or two objects taken three times is equal to six objects taken once; or when he has found that in separating a pile containing six blocks into two piles containing an equal number he has three blocks in each,—then he should be given oral drill in those operations, after which he may be shown how to represent them thus:  $\dots \times \dots = \dots$ , or  $\dots \times \dots = \dots$ , or  $\dots \div \dots = \dots$ . All these statements the child should read just as he has been making them orally.

It may be asked, "Why not use the symbols"? Because it is all important that we make it as easy as possible for the child to think in number and not in symbols. This question has been discussed for the past century; those opposed to the method saying that we impose upon the child something the mathematician will not take upon himself. It is true the mathematician takes delight in manipulating figures and signs, and making all kinds of abstruse reductions. The writer has read with increasing interest a few pages himself where he was compelled to give two hours to the line. La Place by the use of symbols was often enabled to say, "From which it easily follows;" then would follow a reduction covering half a page or more. However, those who attempted to read after him were required to insert whole pages to see whether it followed at all or not. This simply shows the wonderful lever the mathematician has in his symbols. But we are only dealing with the mathematician in embryo when we are dealing with the child, and the tools which the skilled workman may use are not always safe instruments to put into the hands of the child.

A knowledge of number can only be had through sense-perception; and since there is nothing in the symbol suggestive of number it becomes at this stage of the child's development a blind to the idea of number. We are not trying just now to make expert jugglers with symbols, or even to develop power to perform the operations rapidly. The primary object now is to develop as well as we can the

most easily conceived idea of number—the multitude idea, and to produce in his mind a bent in the proper direction. It is simply carrying out the well-known rule, “First a thing in itself, and then the way of it, matter before form.” The only question is, How long should the form be postponed? Pestalozzi’s plan was in some respects similar to the one here suggested, but it is here agreed that he postponed the form too long.

It is asked, Why use such symbols as +, —, etc., and not use a symbol like 4? This is easily answered. There is no way of representing the operations save by words or symbols, and in fact neither word nor symbol is *suggestive* of any special operation; so it is just as well and better to use the sign, for it is shorter and nothing is sacrificed; whereas all will acknowledge that . . . . is a representation of the multitude idea intended to be conveyed by the number four. The symbol 4 represents the idea no better than the symbol 5. I would not have the reader understand that by *any* representation can we see number, for it is not an object of sense-perception. The idea of number can only be had by reflection, an activity of the mind; and this activity is quickened *through* sense-perception, which calls for objects or their representation and not symbols.

As a last resort, those who object to this plan say that we should consider the difficulty which children have in connecting the number with the proper symbol, and especially with the proper name in the number series; and hence we should present number-picture, name, and symbol simultaneously, in order that we may make the greatest use possible of the law of association. It is very probable that the child would meet with some trouble in connecting the number with the proper name in the series, when he may have the idea that the fourth piece of chalk is four, or when his mind has been cumbered with the symbol. But the connecting of the proper symbol with name or number-picture is an easy matter when he has the number idea fairly well established.

In the making of the number systems we find that all the operations have been used; but that addition and multiplication stand out prominently. For example, in Latin 18 is called *decem et octo* (10 + 8); in French, *dix-huit* (10, 8 or 10 + 8); in German, *Acht-Zehn* (8, 10 or + 10); in

Lower Briton, *tri-omch* ( $3 \times 6$ ); in Welsh, *dew-naw* ( $2 \times 9$ ). In English we have it as it is in German; while by one system we find 50 called half-hundred. This shows that the use of operations dates back to the time of the forming of the number systems.

### THIRD STEP—NOTATION.

The next step in the development of arithmetic was writing numbers. The primitive plan was to cut notches on a stick or to make scratches on a stone. But of scientific plans there are only a few; viz., the Egyptian, Babylonian, Greek, Roman and the Hindu (Arabian). It is interesting to note that in nearly all the systems the orders diminish in value in the direction in which they are written: the Roman method being the striking exception. In some of the systems the symbols are written from left to right, in others from right to left, while the Chinese write from the top downward.

Among the Egyptians we find the numbers written from right to left. In this system different symbols are used for the first nine numbers, likewise for all the ten-units, all the hundred-units, and all the thousand-units.

In the Babylonian system the cuneiform inscriptions proceed from left to right. The symbols used are the horizontal wedge, the vertical wedge and a combination of the two. The additive and multiplicative principles are both used.

The oldest Greek numerals were the initial letters of the numbers 1, 5, 10, 100, 1,000, 10,000, etc.; but about 500 B. C. another system arose, and the numbers were represented by the letters of the Greek alphabet. The first eight letters with one extra stood for the single units; the next eight with one extra for the ten-units; and the rest with one extra for the hundred-units. By this system it will readily be seen that all numbers below 1,000 can be written with few symbols. For example, while the Romans wrote 488 thus, CCCCLXXXVIII, the Greeks wrote it  $\text{ϰπη}$ .

All are familiar with the additive, subtractive and multiplicative principles used in the Roman system. For example, VIII =  $5 + 3$ , IX =  $10 - 1$ , XXX =  $(10 + 10 + 10) \times 1000$ . The bar, however, was very seldom used by the Romans.

The large numbers were usually written out in words. This shows that when for practical purposes the Romans preferred to write out the large numbers in words to using their own system of notation, it is a very bad use of time, to say the least, to require the children of to-day to write numbers by this method beyond a thousand. The origin of the symbols has been a question long disputed, but it is generally believed that they are modified forms of old Greek letters.

The Hindu system can be traced back to certain inscriptions found in Bombay, India, and first made known to the world in 1877. These inscriptions date from about 300 B. C. At that time, and for several centuries following, the system was no improvement over many others. The zero was not then used, and as a consequence the place value of numbers which now makes the system superior to all others was then wanting, being somewhat similar to that used by the early Greeks. If the Arabs invented the zero and introduced it along with the place value element into the system it deserves to be called Arabian; but it is hardly probable that they did more than to help disseminate the system through the borders of the country lying west of them. The zero appeared about 300 A. D., and the first known use of it in a document dates over four hundred years later. It was not until 1500 A. D., near the time of the invention of the printing press, that it began to get a firm footing in the schools. But so late as 1658 the Roman numerals were commonly used, and we find such instruction in the arithmetics of the time as the following: "If you would add  $\frac{II}{III}$  and  $\frac{III}{III}$  write them crosswise on the abacus; then by multiplying,  $III \times III$  is  $IX$ , and  $II \times III$  is  $VIII$ ; add the  $VIII$  and  $IX$  getting  $XVII$ . This is the numerator; then multiplying the denominators,  $III \times III$  is  $XII$ ; write the  $XII$  under the  $XVII$  and make a line between, thus  $\frac{XVII}{XII}$  which equals one and  $\frac{V}{XII}$ ."

So, we see that from the time of the introduction of the zero and the place value element into the Hindu system, which made it so vastly superior to all others, to the time of its universal adoption through the West, was about fourteen hundred years. However, the real time of competition

between the Hindu and Roman systems [dates from about 1200 A. D., when the Hindu system was first brought to Italy, to 1700 A. D., or about five hundred years. Is it not strange that it should take five hundred years for the one system to supplant the other when there was no comparison between their utility? It seems to us now to emphasize the truth of the old maxim, "Possession is nine points in the law." The struggle between the two is not unlike the present struggle (if such it may be called) between the English and metric systems of measuring. The staying qualities of the Roman system remind one of the "stick-to-itiveness" of such subjects in the arithmetic as equation of payments, alligation, profit and loss (the problems being merely ordinary percentage problems not worthy of a separate chapter), arbitrated exchange, annual and compound interest (beyond the mere ability to compute such interest), and compound proportion. The question as to the conditions existing when these were given a place in the arithmetic, and as to the influences which keep them there, we will have to omit in this article. We find, however, that for many centuries the examination has been a barrier to progress of this nature, and all know that such, to a great extent, is true at the present time.

The next step in the development of arithmetic, after the writing of integers, was that leading to a knowledge of fractions. But the discussion of this step with subsequent ones we will leave to be brought out at another time.

Let it be understood that this treatment of the development of arithmetic, taking it up by successive steps as we have done, is not to teach that the child's arithmetic should be developed by the conscious taking up of the successive steps, as steps, as herein indicated. In fact, the easy development of most of these can only be accomplished through a certain amount of knowledge of the succeeding ones. We do wish to show, however, the general order of progress best fitted for the child mind.—*Education.*

### Editorial Notes and Comments.

—IN the admirable report on Protestant Schools in the Province of Quebec, by Prof. Adams, to which brief reference was made last month, he does not ignore the specially difficult conditions under which these schools are

maintained. He says that "the educational problem in the Province is greatly complicated by the gradual westward and southward movement of the Protestant population." He observes, too, the consequence of the disproportionately large migration of the younger men and women in that "those who remain have much smaller families than was formerly the case." So, to quote the words of our author, "In one fairly populous school district I found that there were only six children of school age. In two of the districts under the Phillipsburg Commissioners there are only *six* children of school age, *i.e.*, there are two schools with only three children available for each." Again, "Of the schools thus visited" by the author, "I find that 35 per cent had an average attendance of 10 or less than 10." "Six per cent of the whole number of schools visited had an average attendance of 5 or less than 5. One school, I was informed by the inspector of the district, has been kept open for two years with an attendance of only two." The author finds "that more than 60 per cent of the (Protestant) Elementary Schools have an attendance of 15 or less, considerably more than a half of these having an average of 10 or less." Under the immitigable slow pressure of the ecclesiastical system of the Province, the Protestant population is retreating from rural Quebec, and the maintenance of schools in the outposts of our language and religion involves sacrifices, the severity of which is known only to those who endure them.

Another serious difficulty is the smallness of the legislative grant for education, and the consequent feebleness of central control. The inadequate grant, so inadequate that the annual share for each school in one municipality was found to be but \$5 and in another but \$6.70, cripples the whole system. "The grant is so small that the threat of withholding it carries little weight." Hence there are School Commissioners who neglect or defy regulations, do not visit their schools, do not keep their accounts in the authorized form, do not submit their books to audit, do not exact bonds from their Secretary-Treasurers, employ teachers without diplomas, keep schools open but a few months, four months or less, in a year, still board teachers around, who, in short, generally omit or carelessly perform "the duties implied in sections 98-128 of the Regulations of

the Protestant Committee." One Secretary Treasurer snaps his fingers at Government regulations, and "asserts that his trustees regard the whole educational system as a humbug." Says our author, "Several Secretary-Treasurers whom I met unblushingly recommended their Commissioners to cut themselves off from the Department altogether, and run the schools in their own way."

Not only is the legislative grant too small, but it is evident, to Prof. Adams that the method of its apportionment is faulty. Its distribution to each municipality rigidly in proportion to population, precludes the use of the Government subsidy as a stimulus to local endeavour. The remedy is pointed out in a pregnant paragraph which we quote: "The effect of the distribution of the money recently allocated to the poor municipalities is most instructive. Almost without exception the municipalities involved have made unusual exertions to meet departmental requirements, because the grants offered, though small in themselves, were, relatively to the local resources, valuable. The almost unanimous recommendation of earnest Commissioners, when I asked their opinion, was: Give us two things, (1.) Compulsory Education, and (2) a larger Government grant, and the position is secured. There are serious difficulties in the way of both, no doubt. But with regard to the grant it is worth noting how much would be necessary, however improbable it may be that it will ever be available. An additional annual grant of \$20,000, placed at the disposal of the Committee to be used to enforce the regulations that are really important, would go very far to put the Protestant Elementary Education of the Province on a satisfactory footing. The policy to be followed in any case is certainly that of aiding local effort by a *pro rata* contribution."

Evidently the disadvantages that result from our system of school municipalities containing many schools and administered by School Commissioners, not specially interested in each school, in contrast with the Ontario system of administration by a Board of Trustees in each school, are apparent to Prof. Adams, although he does not explicitly trace them to their necessary source. Such Commissioners, unless they be, as many of them are, men of the highest moral qualities, will yield to the parsimonious instincts of

their electors, and will guard themselves against the charge of favouritism to one locality or school by reducing all schools to the same low uniformity. All schools will be alike incommensurable, all teachers will be paid alike, the hope before parents will be low taxes, before good teachers, escape from the municipality. A striking illustration of this kind of mal-administration is thus quoted: "Mr. C. A. Jenkins, the Secretary-Treasurer of the Municipality of the Township of Stanstead, told me that of the thirty-three schools under his Commissioners, three were now closed, while of the remaining thirty, exactly one-half were taught by teachers without diploma. All the thirty teachers, whether holding Model Diplomas, Elementary Diplomas or no diploma at all, receive exactly the same salary, \$16 per month."

In conclusion, without expressing an opinion of our own, we quote the heads of the Summary with which the report concludes:—

1. There is need of a more rational classification of the schools of the Province.

2. More money is urgently needed to enable the Protestant Committee to give effect to its regulations.

3. Education might now be made compulsory.

4. Some form of consolidation of small schools is urgently needed.

5. The prevailing bookishness of school education is to be remedied not so much by a change of curriculum as by a change in the methods of treating the various subjects.

6. It would be a great advantage if there were a Chief Inspector of Schools who had the power to introduce a greater measure of system than at present exists, particularly in the higher schools.

7. In order that capable men and women may be kept in the profession, better salaries must be paid than at present. In order that capable men and women may make the most of their capacity, they must be trained.

8. We must look to the University to maintain the status of teachers in the Province.

It is with satisfaction that we hear a note of dissatisfaction with the present sanitary arrangements of even the best of schools. Dissatisfaction makes for progress and points to reform. Satisfaction makes for stagnation and

points to permanence of poor methods. Mrs. Richards, of Boston, believes that modern school-houses are not all they should be to ensure the physical well-being of the children. She says :

“ More fresh air is needed in the schools. So long as Boston spends \$1,000 a year on feather dusters we cannot pose as reformers. Our school-houses are built to be an ornament of the city, perhaps, and a deathtrap for the helpless children, or they are copies of some other city's blunders, or the contractor bungles the fairly good plans.

In almost every case it is the children who are sacrificed, who are dragged by the truant officers from the sunlight and fresh air of the streets into dens of stagnant, dusty, ill-smelling air, which no respectable board of charity would allow in an almshouse. My experience would prove that this is no exaggeration. Lunch-rooms, with all facilities for food, both hot and cold, must be included in the twentieth century school-house. I believe the day is not far off when the lower schools, with two sessions, will provide a noon luncheon, without sending the small children through what are often wet, muddy streets to a home from which the mother may be absent, to pick up as they may such food as they find.”

—THE departure of Mr. Chamberlain for South Africa, the present passive attitude of the Irish members towards the Educational Bill, and the united approval of the Bill by Roman Catholics, are taken as indications that the remainder of its passage through the House will be attended with no storms, and by but few gusts of wind. Possibly the Nonconformist opposition is greater than appears at present.

—THE Convention of Protestant Teachers of the Province of Quebec, held in Montreal last October, was successful from all points of view. The reports to Convention were unusually good, showing that important work had been done during the interim between conventions; the papers read were of a high order and of practical use in bettering the teaching in the Province; the discussions were not so animated as in former years, but were to the point, and the addresses were thoughtful, showing that interest in education is not confined to teachers alone. The attendance

was good, but might have been better. No teacher who attended the Convention returned home disappointed. Ideals were raised and enthusiasm increased. The result of this Convention must be a distinct uplift of educational work throughout the Province. If Canadian history, to cite one example, is not better taught in the future than it has been in the past, it will not be the fault of the Executive Committee of the Teachers' Association, of Dr. Colby, of McGill University, of Dr. Whitney, of Bishop's College, Lennoxville, or of Mr. Gammel, of the High School, Montreal.

### Current Events.

#### REPORT OF JUDGES ON SCHOOL EXHIBITS— OCTOBER 1902.

The judges appointed by your Committee beg to report as follows:—

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|-----------------------------|------------------------|
| A first prize is awarded to | Lachute Academy.       |
| A second “                  | “ Cowansville Academy. |
| A first “                   | “ Howick No. 2.        |
| A second “                  | “ Hinchinbrook No. 10. |

A prize is awarded to Ann Street School for special exhibit of classwork in cabinet.

A prize is awarded to Girls' High School of Montreal for special exhibit of classwork and work in drawing and painting.

A certificate of Honour is awarded to the High School of Montreal for exhibit of classwork.

A certificate of Honour is awarded to the Senior School of Montreal for exhibit of work in applied design.

A certificate of Honour is awarded to the McGill Model School for Girls for special exhibit in sewing and cooking.

Certificate of Honour to all the schools exhibiting as the Macdonald Manual Training School:—

- |                       |                           |
|-----------------------|---------------------------|
| McGill Normal School. | King's School, Westmount. |
| McGill Model School.  | Aberdeen School.          |
| Westmount Academy.    | Mount Royal School.       |
| Knowlton Academy.     | Berthelet Street School.  |
| Waterloo Academy.     | Lansdowne School.         |
| Bedford Academy.      | Dufferin School.          |

A certificate of Honour is awarded to the Berthelet Street School for special exhibit of classwork in a cabinet.

A certificate of Honour is awarded to Aberdeen School for exhibit of classwork in a cabinet.

A certificate of Honour is awarded to Sherbrooke Academy.

Certificates of Honour are awarded to

Hinchinbrooke No. 8.	} for exhibits of classwork.
Godmanchester No. 2	
Elgin No. 5.	
Ormstown No. 1.	
Elgin No. 3.	

It must be pointed out that the following schools, having won prizes within the last three years, are debarred from competing this year; but all their exhibits are of surpassing excellence, viz., the High School of Montreal, Sherbrooke Academy, McGill Model School for Girls (special), Hinchinbrooke No. 8, and Berthelet Street School and Aberdeen School, Montreal.

No prize has been given for work from Model Schools, as no exhibits were received that complied with the regulations. This is much to be regretted, as in more than one instance the work sent in was beautiful, and highly creditable to pupils and teacher.

The judges are pleased that their suggestion of last year, "That subjects be grouped together rather than the different specimens of one pupil," has been so generally adopted, and their work thereby much facilitated. It would seem desirable to limit the specimens to the number required by regulations 2 and 3.

As usual the judges have found some difficulty in selecting the best from such uniformly good work, and the marked improvement in the quality of the exhibits from year to year, more especially from the country districts, is most gratifying.

The judges desire to draw special attention to the fact that work, especially drawing, which shows the individual perception and execution of the pupil, even though faulty, is of greater educational value than more perfect work obtained usually by mechanical or other aid. In examining the work sent up from country schools, the judges have found many evidences that the visiting teachers derive valuable assistance from a study of the classwork shown at these conventions.

They would again impress upon inspectors and teachers the necessity of strictly complying with the regulations in arranging exhibits in order to secure consideration of their work.

Respectfully submitted,

(Signed) J. MACNAUGHTON,  
HELEN CARMICHAEL,  
MARY M. PHILLIPS.

—ONE notable feature in connection with the annual exhibit at the Convention of Protestant Teachers of the Province of Quebec, held in the High School last month, was the really fine display of The Steinberger, Hendry Company, who make and deal in almost everything in the way of school supplies and apparatus. Their exhibit in the High School gymnasium attracted a great deal of attention and elicited favourable comment from teachers and visitors alike, and was certainly of great educational value. We very much regret that all the school trustees of the Province, but particularly the unprogressive, excessively economical ones, were not there to see it; it would have been an eye-opener to them. Many teachers, however, will carry reports to their trustee boards regarding it, we have no doubt. The globes, maps, and charts of various kinds, alone, would have made a good exhibit, but when we consider, in addition, the school furniture, chemical, physical, and laboratory apparatus, as well as the kindergarten supplies shown, we begin to have some idea of the extent to which invention and research are applied to education in our day.

--FOUR hundred and thirty teachers from Toronto attended the Teachers' Convention held last month at Detroit.

--A COURSE especially to benefit farmers has been designed by the directors of Wesley College, Winnipeg. The subjects taught will have reference particularly to the needs of farmers, and will include arithmetic, book-keeping, English literature, grammar, law, writing, practical mechanics, practical farming, fruit-growing, rotation of crops, farm buildings, stock-raising, farm hygiene, and public speaking.

--AT a meeting of the Corporation of McGill University, the registrar reported the following attendance in the

various faculties: Law, 39, a decrease of 8 over the figures of last year; Arts, 298, of whom 180 are undergraduates, 119 men and 61 women; 98 are partials, 36 men and 62 women; 16 are conditional, 11 men and 5 women; 4 are graduates; Applied Science, 280; Comparative Medicine, 16. The applied science faculty has the largest freshman class on record; there are 93 in the first year, and many of the 24 partials are also taking the same lectures, so that the increase in the entry is reckoned at over 50 per cent.

In the faculty of medicine the attendance is in the neighbourhood of 400. The total number of students at the University this year is therefore a little over 1,000.

—THE Federal Government proposes to build a school at Caughnawaga for the benefit of Indian children, in exchange for the Doncaster reserve.

—THE programme for the Teachers' Lecture Course this season is as follows:

- 1 The Nebulæ and the Nebular Theory, Illustrated.  
Prof. E. E. Barnard, Yerkes Observatory.
2. Paris. Illustrated by Bickmore Slides.
3. Jamaica and Porto Rico. Illustrated by Bickmore Slides.
4. The Waterways of Canada, with special reference to the Trent Canal. Illustrated.  
R. B. Rogers, Esq., Chief Engineer of the Trent Canal.
5. Commercial Education.  
Dr. W. P. Wilson, Director of the Commercial Museum, Philadelphia.
6. Mosquitoes in Relation to the Propagation of Disease. Illustrated.  
Dr. J. G. Adami.

—THERE should be an Education Day (holiday) to give the teachers a recognition. It should be a day when Uncle Sam himself would hire carriages, the best in the land, and drawn by the grandest horses, too, and attended by the militia and all the brass bands in the country, that the public school teachers may be borne through the streets with all the pomp and ceremony befitting these foster mothers and fathers of the nation. The least appreciated of all workers in the community is the school teacher.—*H. H. Cahoon in the Primary Education.*

The recognition desired by the teachers of the Province of Quebec is of a more utilitarian and less public and noisy character.

### THE LATE SIR JOHN GEORGE BOURINOT.

Another of our great Canadians has passed away in the person of Sir John George Bourinot, who died on the evening of the 13th of October, after an illness which lasted for several months. In his capacity of Clerk of the Dominion House of Commons, he has been a prominent figure for nearly thirty years.

The Brooklyn *Daily Eagle* says:—

“Despatches from Canada record the death of Sir John G. Bourinot, Clerk of the Canadian House of Commons and an historical writer of wide repute and admirable attainments. Had he not chosen to concern himself with literary matters Dr. Bourinot would have been distinguished through his capacity for public service in and out of Parliament. His devotion to historical research and writing, however, brought to him a larger reward than he could have commanded in the field of politics; it gave to him the appreciation and esteem, not only of his fellow countrymen, but of thousands of Americans and Englishmen who have profited by his work. ‘The Story of Canada’ was a revelation to those who believed that the early history of the Dominion’s provinces had been thoroughly threshed out by Parkman and his French prototypes. As to style, Dr. Bourinot’s productions leave little to be desired. As to accuracy of statement they have not yet been successfully challenged. As to the fairness of the opinions expressed in their pages one can only say that the balance between conflicting facts upon which those opinions are based has been delicately and deftly preserved. The loss to Canada in Dr. Bourinot’s death is shared wherever the history of that country has a single student.

The late John George Bourinot was born at Sydney, N. S., on Oct. 24, 1837, and was the eldest son of the late Hon. J. Bourinot, senator, and grandson of Judge Marshall, son of a U. E. Loyalist on his mother’s side.

Dr. Bourinot was an authority on parliamentary practice and author of a large work on parliamentary procedure, of ‘Federal Government in Canada,’ ‘How Canada is Governed,’

'The Story of Canada' (National Series), 'Cape Breton and its Memorials of the French Régime,' 'Procedure of Municipal Councils and Public Meetings,' besides other works on constitutional and historical subjects. He was a frequent contributor to 'Johns Hopkins University Political Studies,' the 'Quarterly Review,' 'Blackwood,' the 'Arena' and other periodicals. He was created a C.M.G. on Jan. 1, 1890, and a K.C.M.G. in 1896. In 1886 he received the honorary degree of LL.D. from Queen's University, Kingston; in 1888, D.C.L. from Trinity University, Toronto; in 1890, D.C.L. from King's College, Windsor; in 1890, Docteur de Lettres from Laval University, and in 1895, D.C.L. from Bishop's College, Lennoxville."

### Correspondence.

#### PROBLEMS

We have been asked by "Young Teacher in Trouble" to solve the following problems:

1. How much farther will a horse have to run in going round the sides of a square mile of land than in going round the same area in the form of a circle.

Solution: If the area of a square is one square mile, the perimeter is four sq. mls.

As the area of the circle is  $\pi r^2$ ,

$$\pi r^2 = 1 \text{ sq. ml.}$$

$$\therefore r^2 = \frac{1}{\pi}$$

$$\therefore r = \sqrt{\frac{1}{\pi}}$$

But the circumference of the circle is  $2\pi r$   $\therefore$  is  $2\pi \sqrt{\frac{1}{\pi}}$  by the substitution of  $\sqrt{\frac{1}{\pi}}$  for  $r$ . Now if  $\pi$  be taken as  $\frac{22}{7}$  the circumference will be  $\frac{44}{7} \sqrt{\frac{1}{\frac{22}{7}}} = \frac{44}{7} \sqrt{\frac{7}{22}} = 3.5456$  mls. The difference therefore between the perimeter of the square and the perimeter of the circle is .4544 of a mile. If  $\pi$  be taken as  $\frac{355}{113}$  a closer approximation to the true answer is reached; if  $\pi$  be taken as 3.14159 a still nearer approximation is obtained.

The above is not the shortest method of solving the problem, but it is better understood by the immature mind than the following:

$$\text{Cir.} = 2\pi r \text{ but } r = \sqrt{\frac{1}{\pi}}$$

$$\therefore \text{Cir.} = 2\pi \sqrt{\frac{1}{\pi}} = 2\sqrt{\pi} = 2\sqrt{\frac{22}{7}} = \frac{2}{7}\sqrt{154}$$

$$= 3.5456. \therefore \text{diff.} = 4 - 3.5456 = .4544.$$

2. The pressure of the atmosphere on a certain day was  $14\frac{3}{4}$  lbs. avoirdupois to the square inch. What would be the corresponding pressure in kilograms to the square centimetre ?

In order to obtain the answer (1.03575) that you send to us it would be necessary to know the equivalents used in making the reductions. The equivalents are given in varying degrees of exactness in the different text-books. The value of the kilogram is given as 2.20462125 lbs. in some arithmetics, in others as  $2\frac{1}{2}$  lbs., the latter being near enough for all ordinary purposes ; the sq. in. is given as .06452 sq. metres in some texts, in others as  $\frac{6}{100}$  sq. m. These facts account for the variety of answer possible.

The *method* of solution is as follows :

$$1 \text{ gram} = 15.432 \text{ grains.}$$

$$\therefore 1 \text{ kilogram} = 15432 \text{ grains} = 2.20462125 \text{ lbs.}$$

$$\therefore \frac{1}{2.2046 \text{ etc.}} \text{ kilogram} = 1 \text{ lb.}$$

$$\therefore \frac{14.75}{2.2046 \text{ etc.}} \text{ kg.} = 14.75 \text{ lbs., that is to the sq. in.}$$

$$\text{But the sq. in.} = .06452 \text{ sq. meters} = 6.452 \text{ sq. centimetres.}$$

$$\therefore 14.75 \text{ lbs. to the sq. in.} = \frac{14.75}{2.2046 \text{ etc.}} \text{ kilograms to the sq. meter} = \frac{14.75}{2.2046 \text{ etc.} \times 6.452} \text{ kilograms to the sq. centimetre} = 1.037105 + \text{ kilograms.}$$

—WE have been again asked to answer the following question which was solved in the January 1901 number of THE RECORD.

The Record ought to be filed each month, not consigned to the waste paper basket, and should be left in the school on the retirement of the teacher to fill another position.

A boy on counting his marbles 3 at a time, or 4 at a time, or 5 at a time, has always one marble over ; but on counting them 7 at a time he has none over. What is the least number of marbles he can have ?

In the first place it may be remarked that the above question is not within the grasp of children. It can be solved by them by a process of "trial and error" in a more or less systematic way. But this method has no value educationally. It is not used in arithmetic except in those cases that come within the limits of the multiplication table. Questions of this nature should be relegated to the sphere of "fancy gymnastics."

Solutions :

1st. The L. C. M. of 3, 4 and 5 is 60. The number 61 would therefore leave a remainder of 1. when divided by 3, 4 or 5. As each sixty is exactly divisible by 3, 4 or 5, 60 and 61 would leave 1 remainder. If sixties be added to 61 until a number divisible by 7 is obtained, the sum will be the required number ;

$61 + 60 + 60 + 60 + 60 = 301$ . Because each sixty when divided by 7 leaves a remainder of 4, 5 sixties may be considered as leaving a remainder of 20. The 61 will leave another one remainder, in all 21, which is itself divisible by 7; therefore the whole number 280 and 21 or 301 is divisible by 7. It is evident from this that we are seeking the sum of a series of which the first term is 61, the common difference 60 and the number of terms, 5, calculable.

2nd. The following method requires least trial :

The number is divisible by 7, but when divided by 3, 4 or 5 leaves a remainder of 1,  $\therefore$  1 less than the number is a multiple of 60; that is, it is a multiple of 6 by some number ending in 0. But this latter number when divided by 7 leaves a remainder of 6,  $\therefore$  7 less than the original number is a multiple of 6 by some number ending in 9. But this multiple of 6 by some number ending in 9 is divisible by 7  $\therefore$  this number ending in 9 is divisible by 7. But the smallest number ending in 9 that is divisible by 7 is 49. Therefore 7 less than the original number is  $6 \times 49 = 294$ , and the original number is  $294 \times 7 = 301$ .

### Official Department.

#### DEPARTMENT OF PUBLIC INSTRUCTION.

Quebec, September 26th, 1902.

On which date the regular quarterly meeting of the Protestant Committee of the Council of Public Instruction was held.

Present:—The Reverend W. I. Shaw, LL.D., D.C.L., in the chair; George L. Masten, Esq.; Professor A. W. Kneeland, M.A., B.C.L.; the Reverend A. T. Love, B.A.; the Right Reverend A. Hunter Dunn, D.D., Lord Bishop of Quebec; H. B. Ames, Esq., B.A.; W. S. Maclaren, Esq., M.P.; Gavin J. Walker, Esq.; Dr. C. L. Cotton, the Reverend E. I. Rexford, M.A.; Principal S. P. Robins, LL.D., D.C.L.; John Whyte, Esq.; James Dunbar, Esq., K.C., D.C.L.; W. L. Shurtleff, Esq., LL.M.; H. J. Silver, Esq., B.A.

The meeting opened with prayer by the Rev. E. I. Rexford.

Apologies for the enforced absence of Principal Peterson, LL.D., C.M.G., the Hon. S. A. Fisher, B.A., M.P., the Hon. H. T. Duffy, K.C., LL.D., M.P.P., and Samuel Finley, Esq., were submitted.

The minutes of the last meeting were read and confirmed.

The report of the Secretary in regard to his conferences with Professor Robertson with a view to the establishment of centres for Nature Study and for consolidation of schools was read. It was ordered that the report be printed in the RECORD.

The minutes of the meeting of the Inspectors with the Secretary in July were read.

The Secretary reported that in virtue of the will of the late Hon. Cecil Rhodes, a Scholarship tenable for three years of £300 per year, would be offered annually in the Province of Quebec to enable the winner thereof to pursue his studies in Oxford. The terms of the competition will be announced by the Executors of the will later, but the legatee gives directions as follows, in part:—

“My desire being that the students who shall be elected to the Scholarship shall not be merely bookworms, I direct that in the election of a student to a Scholarship regard shall be had to (I) his literary and scholastic attainments, (II) his fondness of and success in manly outdoor sports, such as cricket, football and the like, (III) his qualities of manhood, truth, courage, devotion to duty, sympathy for the protection of the weak, kindness, unselfishness and fellowship, and (IV) his exhibition during school days of moral force of character and of instincts to lead and to take an interest in his school-mates, for those latter attributes will be likely in afterlife to guide him to esteem the performance of public duties as his highest aim.”

The report of the sub-committee on the distribution of the superior education grants was submitted, and after discussion it was adopted in the following form, and the Secretary was instructed to transmit it to the Lieutenant-Governor in Council for approval under articles 444-450 of the school law :

September 26th, 1902.

Your sub-committee begs to report that it held two sessions yesterday, at both of which the following members of the sub-committee were present, namely:—the Rev. Dr. Shaw, the Rev. A. T. Love, G. L. Masten, Esq., and H. J. Silver, Esq.

The sub-committee regretted the loss of the valuable assistance of the other member of the committee, the Rev. E. I. Rexford, through his enforced absence.

(1.) In examining the returns of the Inspector of Superior Schools and in preparing a provisional scheme for the distribution of the Superior Education Funds, your sub-committee had the valuable assistance of the English Secretary of the Department and of the Inspector of Superior Schools. Moreover, the work of your sub-committee was greatly facilitated by the carefully prepared tabular summaries submitted by the Inspector of Superior Schools.

(2.) We hereby recommend that, as last year, one-half the amount arising from Marriage License Fees be given to the Poor Municipality Fund, and the other half to Superior Education.

(3.) In accordance with the method followed last year, your sub-committee recommends (*a*) that sixteen academies and three special schools receive \$200 each as basal grants, and that the five remaining academies and one special school receive \$150 each as basal grants, and (*b*) that seven model schools receive a basal grant, of \$75 each, that eight receive \$60 each, and the remaining twenty-four model schools \$50 each, and (*c*) that seven model schools be placed on the special list with grants as follows:—

Paspebiac .....	\$ 100
New Richmond .....	100
Gaspé Basin .....	100
Longueuil .....	50 *
Arundel .....	50 *
Maple Grove .....	50 *
Chicoutimi .....	50 *

\* Granted conditionally.

Your sub-committee begs to recommend (*a*) that the grant to Longueuil be paid by the Department as soon as evidence is placed in its hands by the Longueuil School Board that the putting up of a new school building is an assured fact; (*b*) that the grant to Arundel be continued only on condition that a new building be erected for the consolidation of the schools of Arundel; (*c*) that conditions do not justify the admission of the Maple Grove School to the rank of a model school until there is more satisfactory

evidence of its permanency as such; that the grant be continued to Chicoutimi if the attendance is satisfactory to the Department.

(4). The bonus grants and equipment grants, as proposed, have been determined strictly in accordance with the regulation of your Committee adopted last February.

(5). The following scheme for this distribution of the amount available for superior education has been prepared in accordance with the foregoing principles, and is recommended for the approval of the Committee.

### STATEMENT OF REVENUE.

Share of the Legislative Grant of \$71,000 .....	\$ 8,800 20
Specific " " for Protestants..	2,000 00
Interest on Jesuits' Estate Settlement.....	2,518 44
Interest on Marriage License Fund.....	1,400 00
Marriage License Fees, net.....	7,391 92
	\$22,110 56

### FIXED CHARGES.

Prizes for well kept school grounds.....	\$ 175
Teachers' Association.....	200
A. A. Examiners.....	500
On Inspector's Salary.....	700
Assist. Examiners for June examinations.	600
Printing examination papers, express, postage, stationery, &c., &c.....	500
	2,675 00
	\$2,675
Available for distribution.....	\$19,435 56

### GRANTS FOR 1902.

#### UNIVERSITIES.

McGill .....	\$ 2,075 00
Bishop's .....	1,125 00
	\$3,200 00

## ACADEMIES.

	Grants.	Bonuses.	Eq. Grants.	Total.
✓ Lachute.....	\$200 ✓	\$110	\$75	\$385
✓ Waterloo .....	200 ✓	99	50	349
✓ Sherbrooke.....	200	96	75	371
✓ Huntingdon .....	200 ✓	96	60	356
✓ Coaticook .....	200	91	75	366
✓ Cookshire.....	200 ✓	88	40	328
✓ Granby.....	200 ✓	84	75	359
Stanstead .....	200 ✓	82	60	342
✓ Knowlton .....	200 ✓	80	50	330
✓ Inverness .....	200 ✓	77	25	302
✓ Valleyfield.....	200	77	75	352
✓ Ormstown .....	200 ✓	77	50	327
✓ Shawville.....	200 ✓	73	25	298
✓ Danville .....	200	71	60	331
✓ Sutton .....	200 ✓	71	40	311
Aylmer.....	200 ✓	66	25	291
✓ Lennoxville.....	150 ✓	61	50	261
✓ St. Francis.....	150	60	50	260
✓ Three Rivers.....	150	56	40	246
✓ Bedford... ..	150 ✓	51	25	226
✓ Cowansville .....	150 ✓	51	50	251
	<hr/>	<hr/>	<hr/>	<hr/>
	\$3,950	\$1,617	\$1,975	\$6,642

## SPECIAL ACADEMIES.

✓ King's Hall.....	\$ 200
✓ Dunham Ladies' College...✓ .....	200
Girls' High School, Quebec.....	200
✓ St. John's High School...✓ .....	150
	<hr/>
	\$750

## MODEL SCHOOLS.

	Grants.	Bonuses.	Eq. Grants.	Total
✓ Lachine .....	\$75	\$21	\$60	\$156
✓ Farnham.....	60 ✓	20	40	120
✓ Buckingham .....	75 ✓	19	50	144

	Grants.	Bonuses.	Eq. Grants.	Total .
✓ Gould.....	\$50 ✓	\$19	\$40	\$109
✓ Clarenceville .....	60 ✓	19	40	119
✓ St. Lambert.....	75	18	60	153
✓ Sawyerville.....	60 ✓	16	40	116
✓ Como .....	50 ✓	16	40	106
✓ Portage du Fort.....	50 ✓	16	40	106
✓ Fairmount.....	75	16	50	141
✓ Bishop's Crossing....	60 ✓	16	35	111
✓ Scotstown.....	50 ✓	16	30	96
✓ Bury .. .....	50 ✓	15	40	105
✓ Waterville .....	60	15	50	125
✓ Hemmingford.....	50 ✓	15	35	100
✓ Clarendon .....	50 ✓	15	40	105
✓ Lacolle.....	50 ✓	15	30	95
✓ Windsor Mills .....	50	14	35	99
✓ Mansonville.....	75 ✓	14	40	129
✓ Leeds.....	50 ✓	14	40	104
✓ Montreal West.....	60	14	50	124
✓ Beebe Plain.....	50 ✓	12	30	92
✓ Marbleton .....	50 ✓	12	30	92
✓ Frelighsburg.....	50 ✓	12	60	122
✓ Megantic.....	60 ✓	11	35	126
✓ Stanbridge E .....	50 ✓	11	40	101
✓ Hull.....	75 ✓	11	50	136
✓ St. Andrews.....	50 ✓	11	40	101
✓ South Durham.....	50 ✓	10	40	100
✓ Rawdon .....	50 ✓	10	35	95
✓ East Angus .....	60 ✓	10	30	100
✓ St. Sylvester .....	50 ✓	10	30	90
✓ East Hatley.....	50	10	35	95
✓ Compton .....	50	10	35	95
✓ Ulverton.....	50	10	40	100
✓ St. Hyacinthe.....	50 ✓	9	35	94
✓ Barnston .....	50	9	40	99
✓ Magog.....	75	9	40	124
✓ Kinnear's Mills.....	50 ✓	8	30	88
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	\$2,205	\$528	\$1,560	\$4,293

## SPECIAL MODEL SCHOOLS.

Paspebiac.....	\$ 100
New Richmond.....	100
Gaspé Basin.....	100
Maple Grove.....	50
Longueuil.....	50
Arundel.....	50
Chicoutimi.....	50
	<hr/>
	\$500

## SUMMARY.

Awarded to Poor Municipalities.....	\$ 3,695 00
Universities.....	3,200 00
Academies (Grants).....	3,950 00
“ (Bonuses).....	1,617 00
“ (Equipment Grant).....	1,075 00
Model Schools (Grants).....	2,205 00
“ “ (Bonuses).....	528 00
“ “ (Equipment Grant).....	1,560 00
Special Academy Grants.....	750 00
“ Model School Grants.....	500 00
	<hr/>
Total.....	\$19,080 00

The report of the supervisors of the June examinations was read and referred to the standing sub committee on June examinations.

Mr. Margolese, of Montreal, appeared with a petition from the School Committee of the Corporation of Spanish and Portuguese Jews asking that the Hebrew language be included in the list of optional subjects in the curriculum of the Public Schools under the control of the Protestant Board of School Commissioners of Montreal.

It was proposed by the Lord Bishop of Quebec, seconded by Alderman Ames, that the teaching of Hebrew be included in the authorized list of optional subjects for the schools of this Province. After discussion it was decided that the whole matter be laid on the table, and that the Secretary be instructed to elicit information from the Protestant Board

of School Commissioners of Montreal, from the various Hebrew Synagogues, and from other sources before next meeting.

The motion of the Lord Bishop and Alderman Ames was converted into a notice of motion.

Moved by the Lord Bishop of Quebec, seconded by the Reverend A. T. Love, that a sub-committee be appointed to consider what means can be adopted to procure for the Secretary such assistance as may be necessary in order that he may be able to spend a due proportion of his time in presiding at educational meetings in the various inspectorates.—Carried.

On motion the Chairman submitted the names of the following as the sub-committee for the above purpose:—The Lord Bishop of Quebec, the Reverend Mr. Love, Dr. Dunbar, Mr. Maclaren, Mr. Whyte, Dr. Cotton, Mr. Walker, Hon. Mr. Fisher. The nomination was confirmed.

The Secretary reported that the sum of \$200, which is annually voted by the Legislature for the Protestant Teachers' Association, had been placed to the credit of the Committee at the close of the last fiscal year. He was authorized to transfer this sum to the Protestant Teachers' Association under article 63.

Applications were received from various model schools asking permission to do academy work. Inasmuch as they did not in any case fulfil the conditions of regulation 87, the permission was not given.

It was resolved to amend regulation 87 by adding the words, "But this restriction shall not apply to the model schools of the counties of Gaspé and Bonaventure."

It was also resolved that the Inspector of Superior Schools be instructed not to send academy papers to model schools, except to such as are authorized by this Committee to do academy work.

For the information of the Protestant Committee, a resolution of the Protestant Teachers' Association was read in favor of the adoption in Canada of the metric system of weights and measures.

The report of the Inspector of Superior Schools was received.

A petition from Chambly, for permission to do first grade model school work in the elementary school, was referred to the Department for reply.

Applications were received from Ireland South and North Hatley, for permission to raise one of their elementary schools to the rank of a model school. It was resolved that the Inspector of Superior Schools be instructed to visit these schools and to report thereon.

Various applications for diplomas under regulation 23 were submitted, but owing to lack of time necessary for the consideration of them, it was resolved that such applications be presented, as a rule, only at the November or February meeting.

The report of the sub-committee on the special and general complaints regarding the inspection of superior schools was read by Mr. Shurtleff, the Commissioner, for taking the evidence. The report was adopted, and it was ordered that the general report be communicated to Dr. Harper, that the appendix be laid on the table, and that the sub-committee be asked to formulate such recommendations as they think the facts will justify.

A unanimous vote of thanks was passed for the valuable services of Mr. Shurleff in conducting the investigation and in preparing his comprehensive and judicial report.

Mr. Rexford read a report for the sub-committee on the course of study, which was adopted.

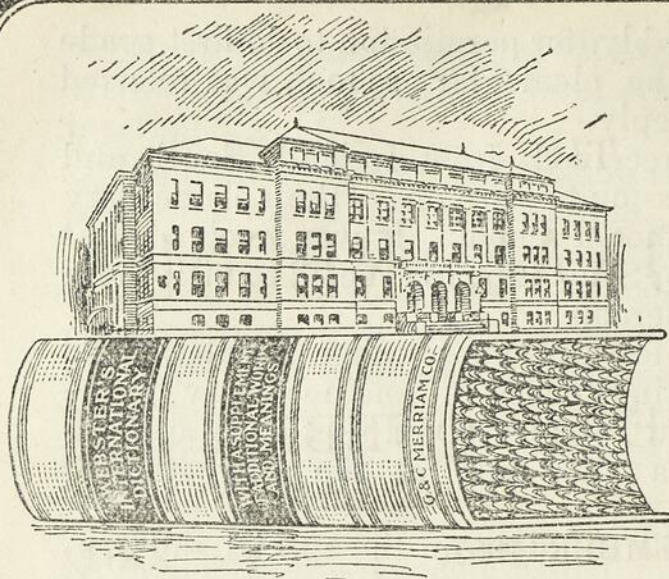
The Secretary was instructed to communicate to the University authorities the reference to changes in the A. A. course of study.

On motion of Professor Kneeland, it was unanimously resolved :—

“That the congratulations of this Committee be hereby extended to our Secretary, Dr. G. W. Parmelee, upon the well-earned recognition of his work and merits, by the authorities of Bishop's College, by conferring upon him the degree of Doctor of Civil Law.”

The rough minutes were then read, and the meeting adjourned until Friday, the 28th day of November, unless called earlier by the Chairman.

GEO. W. PARMELEE,  
Secretary,



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