OBSERVE THE YELL... ...AP ON THE PAPER—THE DATE ON IT INDICATES TH... TIME TO WHICH THE SUBSCRIPTION IS PAID. PROMPT REMITTANCES ARE EXPECTED FROM THOSE WHO HAVE NOT ALREADY MADE THEM.

MIRAMICHI ADVANCE.

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FOR TERMS—See Business Notice.

Miramichi Advance,

CHATHAM, - - - - - OCTOBER 14, 1880.

Fourth Annual Meeting of the Northumberland County Teachers' Institute.

On Thursday morning at 10 o'clock, the fourth annual meeting of the Teacher's Institute of Northumberland County assembled at 10 o'clock in the Academy building, in the room on the first floor used by the High School, and was largely attended some 60 teachers being present.

Mr. C. M. Hutchison, of Newcastle, Vice-President, said he was sorry he was not able to open the proceedings, as the Secretary, Mr. McCully, B.A., had not yet arrived, and he would ask them to wait a few minutes as the President Mr. Ramsay was also absent.

At 11 o'clock the Vice-President, said Mr, Ramsay, the President was still absent, though he was not prepared to say why. The matter was to be regretted, not only on account of the work to be done, but also on account of the matter of loyalty to the Institute, and in his absence, therefore, it devolved on him, the Vice-President, to open the meeting. The large attendance of Teachers shewed a decided interest in the proceedings, and he hoped that this meeting of the Institute would be as successful as those of the past. He thought their past discussions had not been participated in by the lady members sufficiently, and he hoped that during the present meeting, that this would be remedied, as the best results were arrived at by a general participation in the discussions. He had also to regret the absence of the Inspector, Mr. Cox, who was prevented from attending in consequence of an accident, and he hoped the proceedings would be characterized by the same harmony as in the past. In the absence of the Secretary, he would ask the Institute to appoint one *pro-tem.*

Mr. D. McIntosh was then appointed Secretary.

On motion of Mr. Roberts, B. A., the reading of the minutes of last session was ordered to be postponed, and the reason entered on the minutes of the present session.

The members of the Institute now came forward to pay their dues.

At 11.20 the Secretary, Mr. McCully, of Newcastle, arrived, and explaining that he was detained by missing the boat, on request, proceeded to read the minutes of last session.

It was moved and seconded that the minutes as read, stand as recorded. Passed.

AUDITING COMMITTEE.

On motion, Messrs. R. Moir, W. Sivewright and P. Morrissy were appointed auditors to examine the accounts of last year.

The Auditing Committee after examining the accounts, reported them correct in every particular.

On motion of Mr. W. H. Grindly the accounts were read, when it appeared that the disbursements were $33.39 and the receipts $36.05 leaving a balance of $2.66 in favour of the Institute. The Report of the Committee was adopted.

ELECTION OF OFFICERS.

The election of Officers which now took place, resulted as follows:—

President—P. Cox, B. A.
Vice-Pres—C. M. Hutchison.
Sec-Treas.—C. G. D. Roberts, B. A.

A *Committee* of *Management* consisting of two members, Messrs. W. A. Duke, Chatham, and W. Sivewright, Newcastle, was elected, to act with the previously elected officers.

Assistant Secretary—Mr. D. McIntosh.

The Vice-President made a few remarks, in which he thanked the Institute for his election.

FRACTIONS.

Miss Mary R. Davidson now took up the first subject on the Programme, a lesson "Developing the idea of fractions by means of objects, and illustrating the best method of teaching thereof."

She shewed her method by teaching a class of small children, a first lesson in fractions, illustrating her theory by taking parts of an apple by way of example, and representing those parts by the proper fractional symbols on the blackboard. Her method was founded on the principle that abstract truths should be deduced from concrete examples.

The roll of teachers having been called, the Vice-President invited discussion on Miss Davidson's method.

Mr. Duke thought the lesson had been given under some little difficulty, but that the method was a very good one, the trouble being to lead the children to the right idea without telling them too much.

Miss Williston asked if unity was devided into unequal parts, whether such parts were not severally fractions of the whole.

Mr. Sivewright thought that unity might be divided into unequal parts relative to each other, but that such parts would severally be fractions of the whole.

Miss Quinlan (of Chatham) thought these parts were fractious.

Mr. R. Moir, Lower Newcastle, approved of Miss Davidson's method. The word "fractions" was derived from the Latin word *Frangere* to break, and the parts might be either equal or unequal.

Mr. Roberts said in the class before them, the idea seemed to have been developed with much success. He adhered to the definition of a fraction as given in the text-book.

Miss Williston said the definition of a fraction in the text book, "is one or more of the equal parts of a unit."

Mr. Hutchison said the broad view of a fraction was a part of anything, considered as a whole, a fraction itself might become a whole for instance, but it was not right to perplex young children with too much at first. He thought the subject had been brought within the comprehension of the children, and that the great aim ought to be to make teaching inductive.

Mr. W. H. Grindley (Blackville) would have given the child the apple to cut and then questioned the child on it.

Mr. McCully, Newcastle, thought supplying a class with apples to teach them fractions would be rather expensive.

Mr. Roberts wished to know if the definition of a fraction given in the arithmetic be sustained, as he thought there should be no questioning of it.

The discussion was continued by several members until one o'clock when the Institute adjourned.

AFTERNOON SESSION.

The roll having been called, with the consent of the Vice.-President, the discussion on fractions was continued a short time, when it was finally decided that the definition of a fraction as contained in the text-book was correct.

WORMELL'S GEOMETRY,

Mr. Duke, Chatham, read an interesting paper on Wormell's Geometry, Chap. IV.

He said "Geometry has that in itself which should make it to the young a most attractive and suitable subject. But the fact is, that instead of a love for the branch, pupils are possessed of a decided dislike towards it. They have often rather to be dragged along than induced to proceed from any feeling of interest. Mr. Duke shewed this to be the fault, not of geometry nor of the pupils, but of the manner in which the subject was presented to them. In the hands of some teachers, this branch, in itself, so apposite to the minds of most students, loses all its charms. There are some elements essential to the proper teaching of Geometry which they disregard whose pupils dislike that branch. One of the most important of those elements is this, that the learner must not only clearly apprehend the truth he is about to prove, but he should have a knowledge of it as a fact, before he attempts to reason upon it. By reference to the history of the science, this was shewn to be the true and natural order of procedure in teaching the subject. The pupil should first be made acquainted with the truth by experiment. Wormell keeps this principle constantly before him in his treatment of geometry. No reasoning is commenced until a sufficient fund of observations has first been accumulated. This is the part of Wormell's Geometry which is least understood and most frequently ignored. Many teachers regard a mere formal statement of the truth to be proved, often too vague and general for the pupil's perception, as quite sufficient for an introduction to its demonstration. But such statements of principle are not calculated to serve the purpose required, and mere mechanical work is the result. The teacher is forced again and again to supplement such enunciations by extempore explanations, which must often be of a low character, and fail to meet the desired end; the pupil becomes confused and finally finds relief by learning the whole thing by wrote. Another element which Mr. Duke referred to, was the practical application of abstract truths. No truth can be said to be well learned until it can be applied. This principle was illustrated by reference to Wormell. The more immediate subject of the paper—Wormell's Geometry, Chapter IV, was then taken up. Of its three sections, the first only, that treating of the equality of triangles, was considered. On beginning any new subject, the first thing to be done is to thoroughly memorize all definitions and statements of principles, which should afterwards be recited by the pupil again and again. Before this is done, however, there is a certain kind and amount of "teaching" to be performed. It is to a great extent the object of Wormell in the large collection of explanations which precede each chapter, to supply this "teaching." And by carefully regarding the method he adopts in developing definitions, many good lessons may be learned from his text book by teachers, as well as by pupils.

The method adopted by Wormell in developing the idea of a definition by deducing the abstract from the concrete, the general from the particular, was then illustrated and contrasted with that formerly in use. After the definitions have been taught in the manner stated, the class may next be introduced to the propositions—the kernel of the subject.

A preliminary talk as a preface to each lesson was recommended, in which the truths afterwards to be stated in formal proposition should be explained in familiar terms so that their significance and application could be understood. By repeated experiments, the class is led to find true, in one or more cases, what will be shown by proof to be always true. The matter which Wormell supplies for this preliminary talk and his method of teaching it, was next taken up and illustrated. Care should be taken to procure neat and accurate workmanship. When drawings are necessary they should be placed on the board by the pupil without prompting from any source. It is an excellent plan to cause the pupils occasionally to go over the proof without the aid of a diagram. But there is danger of this exercise degenerating into a mere aid to rote learning. To young pupils, it is far more easy to learn the whole thing by rote, than to reason it out, and accordingly unless great pains are taken to prevent it, all teaching will be vitiated by this evil. Some observations were made as to the best means of avoiding this practice, amongst others it was most strongly recommended that the child's own judgment be appealed to. Having finished the theorms, the problems founded upon them should receive careful attention. These who underrate the problems of geometry lose the most potent means of rendering the previous work intelligible, and of retaining it in the memory. When a series of propositions was finished, a careful and thorough review should take place, the nature of which was fully explained.

In closing Mr. Duke recapitulated the leading points he had made, and remarked that though it was necessary to gather together and to memorize facts, yet the teacher should always regard that as subordinate. The main purpose of all our education was to grasp principles, and it is only valuable in proportion to the great ideas it gives."

Mr. McCully thought Geometry was the most difficult of all subjects to teach, especially in the first awakening of the geometrical idea in the mind of the child. In Chapter 4th he thought objects, or paper triangles should be used. He had found it a good plan to place the figures before the children and let them write out the matter on their slates, and afterwards on the blackboard. The subject required a deal of illustration and teaching, both in the advanced and other classes.

Mr. Moir said he had listened to the paper with interest, but the study was not included in the course of country schools. The idea dealt with in Chapter IV was that of triangles, which exemplified the power of three. This might be illustrated by sticks of wood, two or four of which, whose ends were joined together, might be moved in any direction, while a third would render the frame fixed. Nothing strengthened the memory and reason so much as this science.

The Vice-President said he had previously introduced this subject to the Institute, and had since been identified with it. The paper just read met with his approval. He thought Mr. Duke would have done himself more justice, however, had he illustrated his paper by using the black-board. It was evident that he clearly grasped Wormell's method, which was to first present abstract truth (axioms and theorems), by means of simple experiments, but the absence of the inductive system had been very hurtful. He thought that Wormell's Geometry was a hard book to teach. Mathematics could not be taught by rote, but the mathematical idea and the reasoning powers must be developed. When a boy could read mathematics, a great point was gained.

Mr. Roberts said the impression was, that Mr. Duke did not illustrate his paper on the black board, because it might be thought a too close imitation of the text-book.

Mr. J. Hamilton also spoke of the advantage of using the blackboard to illustrate such a paper as Mr. Duke's.

SIGHT SINGING.

The Vice-President gave an interesting address on "Sight singing or Practical Music for schoo's." He said "he had made no preparation, and only intended to give an outline of the subject, as a sort of entrance wedge to be followed up at a future time." He deprecated the teaching and use of dry scientic principles, as uninteresting and unnecessary. He was not prepared to say how far this could be made a practical branch in schools, but singing at sight was a very great accomplishment, also to be able to write the music of a song one had heard. He believed that this could be done by an easier method that the usual scientific one, with which pupils became disgusted. There was one tone on the scale to which the others were all related, and therefore, there were only seven tones to master. Signatures and keys might be dispensed with. Mr. Hutchison illustrated his subject by means of examples on the organ by Miss Thomson of Newcastle, vocal examples by Miss Haviland and Miss Thomson from the "First Series of National Music Charts by Mason," and by written characteristics of notes on the blackboard. Mr. Hutchison said that each note had special characteristics responding to the sentiments of the mind, by a knowledge of which, their sound might be produced. The notes of the organ were produced in succession from one governing tone, and why could not those of the human voice be produced in the same way. He thought that musical education was neglected, but that any one who acquired these seven tones could soon read music at sight. He trusted to be able to do the subject more justice at a future opportunity."

Mr. W. Sivewright spoke of the import of music, and thought it was not attended to sufficiently in our schools. He thought that the thanks of the Institute were due to the Vice-President for his interesting address, for he had told them they could all sing, therefore all that was needed were good lungs and proper instruction.

After some discussion relative to an evening session, it was finally decided that as the Inspector, Mr. Cox, was unable to give his lecture in the Masonic Hall, that in accordance with the suggestion of Dr. Rand, the children from the different grades should be assembled in the evening for work involving manual exercises, with slate and pencil.

EVENING SESSION.

The Institute opened at 7.30, in accordance with the motion passed at the afternoon session. The children of the various grades, 6 from each, to the number of 48 were present. Each of the three town districts was represented in proportion to its number of pupils. The children came provided with slates and pencils, all being prepared to do any question in the work of their grade. The different grades were arranged round the room in order, and a number of teachers were selected to question them, viz., Mr. Duke, grade 8; Miss Quinlan, grade 7; Miss Williston, grade 6; Misses Haviland and Flanigan, grades 3, 4, and 5; Misses Reed and Davidson, grades 1 and 2. The exercises consisted of narrative composition, map drawing, printing, etc. The work being finished, the teachers examined it, and expressed much satisfaction with the result. At the close of the exercise, nuts and raisins were distributed to the children, after which they were dismissed and the Institute adjourned to meet at 9 o'clock the following morning.

FRIDAY MORNING.

The roll having been called and the minutes read and confirmed: Mr. Roberts B. A. of the Grammar School, read a paper on "Canadian History—how best to teach the authorized text book." Mr. Roberts commenced by speaking of method in studying history in general, as a vital point to be attended to. In the study of the arts and sciences and civilization, it was necessary to divide the subject into periods more or less extended, all bearing relation to some particular series of facts, connected with some leading idea. Generally this leading idea was the succession of the rulers of the nation, whose history was studied, and each period was made coextensive with the sovereign's reign. But sovereigns were not always the best men, and it was perhaps preferable to take men of genius, who had the power of solving the pressing questions of the hour. But whatever might be the influence of the sway of kings who died and succeeded each other, the development of civilization still proceeded, although at times it might be retarded or accelerated by the different conditions under which it took place, and should obstacles interpose, or a higher level be required, then the great man came forth for the occasion. It would be more advisable, therefore, to take the stages of some particular line of development in science or politics, connected with some leading idea. In tracing the course of civilization our ideas did not group themselves round the sovereigns of any period, but rather round the great men who flourished during their reigns, such as a Frances Bacon, an Isaac Newton or James Watt, and so in the same way with subordinate subjects. All progress towards relative perfection was made by stages, and this was plainly shewn in the growth of natural life as exhibited by the science of geology. The same principle might be found underlying all kinds of progress, and might be applied to literature, for instance, in the advance of which the national characteristics and experience were pourtrayed, shewing the life of the people, and laying bare the very heart of history. Such a method was peculiarly calculated to interest children, and impart to them vivid conceptions and a logical chain of knowledge, which they could grasp and retain, but in order to do this, the teacher himself must adopt a philosophical method of study. The history of our own country was of primary importance as a study, as being essential to a rational patriotism and a comprehension of its growth and outlook. They were required to instil this knowledge through the means of Archer's History of Canada, which many of them had found from experience ill-adapted for the purpose, and requiring such radical changes as would involve a new work. As a literary effort he considered Archer's

(Continued on third page.)