

tion in three hours as had formerly been done in six, but they must not teach too fast. He did not consider five hours a-day too much, especially for those of 15 or 16. Mr. Hubbard thought the hours could not be lessened, but proposed, when necessary, to introduce hours of exercise. Instruction was not altogether a pouring in operation, but awakening the faculties of the mind. Principal Dawson pointed out the variety of conditions under which the subject had to be considered. Archdeacon Leach proposed it should be tested by experiment. If a boy exhausted his attention in half an hour, why keep him longer. Mr. Howe, said Mr. Chadwick, in England, alleged that ten minutes was the limit of sustained attention. Professor Robbins said to try the experiment it would require a complete re-organization of the school and appliances. A very long and interesting debate on this subject was continued, bringing out various points in connection with it. Principal Dawson next asked if any present had motions to make or subjects to introduce. Before the session closed he wished to bring up the conditions of membership in the Association. The Secretary was provided with a list in which all present were requested to enroll themselves. There was also a further list for all teachers not connected with any local association.

THE TEACHING OF ARITHMETIC.

Professor Robbins now introduced the subject of teaching arithmetic, contending that the text books did not contain the science of rudimentary arithmetic, and dwelling at length on the value of the distributive and commutative principles as aids in assisting children to understand the theory of elementary arithmetic. Principal Dawson remarked at the close of the discussion that arithmetic, he thought, was now much better taught than formerly, but thought much might be done in further breaking down the difficulties of learners.

ADDRESSES BY PRINCIPAL DAWSON, DR. CARPENTER, AND PROF. MILES.

Principal Dawson said this was a gathering together of local associations and teachers from all parts of the country to take counsel about educational matters, and act towards the improvement of education. This Association was still in its infancy, being only called into existence four years ago, but still it has done a great deal of good for the promotion of education in this country. Our meetings have been well attended, and have been very useful. There were some, however, who were careless and callous in the matter. The Association was in a minority in Lower Canada. But he hoped it would be a progressive minority, and would carry on in educational matters a friendly and energetic rivalry with those in this Province who are of a different origin and religion. If the education was stationary it would be scarcely necessary to act together in respect to it. The greatest advances had been made in the last half century towards the revival of education, and it was still yet demanded that further advances should be made in order to train up the young minds and fit them to take a good place in the active and useful walks of life. If the other arts have advanced in neck and neck race for improvement, surely it becomes us as educators to say that we are not behind the age, and that if we are not in advance, it is not possible for us to move in that direction at all. This was the view of educators everywhere. There was another most important question in respect to education, which, as educators, they were hardly prepared to solve. We must make up our minds to prepare the youth of our schools to enter upon the duties of life by making them acquainted with the various arts and sciences which are springing up; many go into the world entirely ignorant of these things. We must have a higher standard to meet the greater demands. It is no use for us to say that the average intelligence of the human race is not improved; that the amount of time devoted to education is not increased; that the public are desirous of shortening school hours and giving more time to physical education as well as mental. So far as possible school instruction must meet the increased demand of our day. This is the great question. It has been attempted to be solved in other cases with more or less success. It is one of the subjects for discussion in this meeting. These opinions were not thrown out by innovators who know nothing of education, and are desirous of merely introducing new modes and fancies. They were thrown out by some of the most ardent of our teachers. Some people think this has been settled long ago, and that a certain number of hours must be spent in the school every day. The question is being agitated in the mother country, and here among our own teachers and parents—what is the proper number of hours to be spent in school? Another question was—what ought to be taught in the schools; how many different subjects or studies were the scholars to be expected to learn in the school? Some people thought they should be taught everything; others thought Latin and Greek were the most important, and that it was not necessary to learn anything else. Others again limited their demands for instruction to the three R's—Reading, 'Riting, and 'Rithmetic. Then we must consider the requirements of the higher

schools, and academies, and what schools there would be of a special character. There must ultimately be a gradation of schools of various descriptions for the different kinds of arts and practical pursuits in life in which the children are to be trained. The Doctor then referred to home lessons. A very great amount of the benefit derived from the study, taught depends upon impulse and assistance given to children by their parents. But some contend that after four o'clock, nothing more should be done. Parents had an opportunity of visiting the schools and thus seeing how the scholars are progressing. It was more difficult to visit boarding schools but the common schools should be visited by parents and guardians. The Doctor then adverted to the education of Taste. In older times schools was the most unpleasant, uncomfortable, and badly ventilated place in the world, and such a thing as the education of taste was never thought of. If it was educated, it was a kind of negative education. Now, however, the school-room has changed. It must be an agreeable place; it must be clean, neat, well ventilated, comfortable and pleasant, there must be pictures, flowers, statues, paintings, and all sorts of things about the school-house, to make it agreeable and pleasant. A taste for the beautiful was thus cultivated and developed. There was another question of teachers' institutes. These originated in New England, and had existed in the United States for a long time. While he was Superintendent of Education in Nova Scotia he had introduced them, where they yet flourished. Teachers formed themselves into an institute, and held meetings lasting for a week or two, and the subjects in which teachers were interested were argued and discussed until exhausted as far as possible, and a great amount of instruction was derived by the teachers holding these meetings. He hoped soon to see institutes of this kind in Canada. In conclusion, he would say that as the country was entering upon a new era in a political point of view, he hoped to see a new era in an educational point of view. He desired that this Province should maintain a high position to the other Provinces relatively, and to the world outside. He hoped the Province of Quebec would not be the least nor the last in the progress of education.—(Applause.)

Dr. Carpenter, on behalf of the Sanitary Association, wished to call the special attention of teachers to two points—1, the sanitary condition of school-rooms, and 2, the regular teaching of health laws in schools. It was bad enough when ignorant parents (in winter for the sake of warmth, in summer to save expense and trouble) deprived their children of fresh air at home; but it was much worse when those who professed to be teachers of the coming generation not only did not teach God's laws for the body, but were continually setting an example in breaking them. In his long experience as a teacher and inspector of schools, he had known many instances of fevers and other dangerous diseases breaking out and spreading because of some bad drain, offensive privy, polluted water supply, or other cause directly under the control of the managers of schools. And apart from these graver calamities, which often worked their own cure from the injuries they caused, in how many of our schools public or private, did children breathe pure air generally, in the latter part of the school hours, the school-room is actively unhealthy. The effects are shown, if not by actual disease, at least by headaches, colds, and general lassitude and restlessness. Every teacher felt bound to give good teaching for the money he received; he was equally bound to give good air to the children. Of course there were difficulties, especially in winter; but these must be overcome. How to bring a pure air without drafts, and in winter without chills, problems more important to children than those in Euclid. Frequent "recesses," during which the whole air of the room should be rapidly changed, are necessary; unless there is provision for a continual change irrespective of windows. When the walls of a room are well heated, even cold air suddenly introduced soon loses its chill. Many children are punished for inattention, which is really caused by the bad air the teachers provides. Not merely oxygen is needed for respiration, but every living body is every moment giving off poisonous gases in insensible perspiration. These, with the carbonic acid, should be removed at the top of the room, where they rise when hot, but when cooled, they descend and enter the lungs. Sulphur of iron should be thrown into all privies, sinks, and offensive drains. If we except religious teaching, there is nothing more important for everyone to know than the fundamental laws of health. Yet many of the well-educated middle class, who can write Latin and solve equations, hardly understand the structure of the lungs or the uses of the liver, and have never been taught the effects of alcohol, tobacco, and different kinds of food on the human system. Surely, as soon as children reach an understanding age they ought to learn something of the structure of their bodies, and the law which govern them. This may be taught either *viva voce* by the teacher, the scholars being required to write recollections of the lessons, or by the help of a text book. Dr. C. exhibited one lately published in England, entitled "*Health made easy for the People*;" by the oldest School Inspector." This is sold by Bentley, 13 Pater-