

ishing even to him. A complete system has spread over Japan in this period, and now he estimated the number of schools at 30,000, and the pupils at two millions. Education in Japan is not yet compulsory, but he thought that the course of human events would have that ultimatum.

In the afternoon session the subject announced for consideration was "Pedagogical Museums or Cabinets," and Dr. J. G. Hodgins, of Canada, was the first speaker. He sketched briefly the growth of the British and South Kensington Museum, in London, and then referred to the one in Toronto, Canada, which is founded on the same plan. It contains, as the result of twenty years' collection, valuable series of educational text-books and appliances, instruments, slabs from Mr. Layard's excavations at Nineveh, galleries of sculpture, paintings and casts, besides a collection of weapons, etc., of the Canadian Indians. The real value of these collections as educators is simply incalculable, while the actual cost of everything has not exceeded \$4,000 a year since its commencement. Schools obtain their books and charts here, and pay about half-price for them.

Dr. Seelhorst, of Germany, called the Industrial Museums, "the children of the International Exhibition." After the first international exhibition, Mr. Semper, a German, tried at the different German governments to find favour for the establishment of an Industrial Museum, but, as none of them would listen to him, he went to England, and Prince Albert started the South Kensington Museum under his supervision. A long time after, Vienna followed, then Stuttgart, Baden, and in 1867 Nuremberg. The last named was founded by Dr. Berg, the commissioner of the exhibition, but owing to his death and the war of 1870, the museum could not be opened until 1872. After Nuremberg, one was founded in Berlin under the direction of Dr. Julius Lessing, one of the greatest scientists of industrial art and a great critic. Dr. Seelhorst, who is one of the directors of the Nuremberg Museum, next explained the difference between his museum and the others in Germany. The object of the Nuremberg Museum is more particularly for instruction in the different branches of mechanics, and for this reason the museum is divided into different groups. First a collection of models, partly original and partly cast; the second is a collection of samples; third, a bureau for information on technical and commercial questions, with which is connected a chemical laboratory; fourth, different shops for theoretical and practical instruction in art and mechanics.

Dr. Migerka, of Austria, was the next speaker, and took for his theme the public school education in Austria, saying that the organization of their education is divided into three classes. First, primary schools. Every little town which has within four English miles, forty children between six and fourteen years of age, is compelled to send the children to school during those years. Second, the high schools or universities; and third, the middle schools. The latter are preparatory departments for the higher schools. The only lady teachers in Austria, even at the girls' schools, are those who teach needlework. In Germany it is quite different. They have already learned from the United States to appreciate the ability of the opposite sex, and there they occupy positions as teachers and directresses of some of the largest and best schools in Berlin.

The closing session was held in the Judges' Hall. The principal business done was the discussion of the question as to the holding of an International Congress in connection with the great World's Fair to be held at Paris in 1878. There was a unanimous expression of opinion as to the propriety of holding such a congress, and the United States Commissioner of Education was authorized to open a correspondence on the subject with European nations.

It should be added that one good result from the Philadelphia Conference is the fair prospect of the establishment of a Pedagogic Museum at Washington. Sweden, Brazil, Belgium, Japan and other countries have offered their whole exhibit, now at the Exposition, to assist in founding such a museum. Of course, our own Government must find a place for it.

2. EDUCATIONAL EXHIBIT OF THE PROVINCE OF ONTARIO, AT THE CENTENNIAL.

England has contributed very little to the educational department of the International Exposition. In other departments she occupies the leading place, both in the extent and quality of her exhibits, but in the matter of education she makes no attempt to show the world what she is doing. This neglect, however, is somewhat compensated for by the fine display made by her vigorous young daughter, the Province of Ontario, Canada. This province has for some thirty or forty years been making efforts to build up an efficient system of public education. At the head of the department of education for nearly the whole of that time, has stood Rev. Dr. Ryerson well known in the United States, and distin-

guished alike as a scholar, a gentleman and an enthusiastic worker in the cause of education. As a result of his wise administration, with the co-operation of the most intelligent citizens, Ontario has made such progress in her school affairs as to warrant her appearing at our Centennial Exposition to compete in respect to them with us and with the world.

The Ontario exhibit contains several rotary stands, to which are hung a considerable number of photographs and drawings of school houses. There are in it several specimens of school desks and seats. These we do not like nearly so well as the best ones made in this country. In scholars' work the exhibit is very poor, there being only a few specimens of drawing, map drawing, and writing. This is a great defect. But that in which the Ontario exhibit equals if it does not excel all others on the ground, is its fine display of school apparatus and appliances.

The Ontario Educational Department is well arranged. There is for a background a wall built like an archway, 100 feet long and 30 feet high, covered with maps, relief maps, drawings, charts, illustrations in natural science, engravings, etc. Immediately in front of this wall stand eleven large glass cases filled with the exhibited articles. The general character of these articles is presented in the following extract which we take from a recent issue of a Philadelphia newspaper:

"Two cases are devoted to the display of articles used in object teaching, one of which is employed in the higher grades of schools, and including a collection of Mammalia, birds, reptiles and fishes, all Canadian and American in character. For ethnological instruction, there are busts of celebrated men representing every country, which are constantly before the pupils while they are studying, and help to serve to make firm impressions upon the memories. For botanical tuition, models of flowers and plants are used in connection with Gray's book of botany. For teaching Zoology, Mineralogy and Conchology, small cabinets are used showing specimens of the principal minerals and shells and their applications to the arts and sciences. In the schools where natural history is taught, cabinets containing two hundred specimens of useful substances of food, medicine and clothing are employed, and for the chemical departments another cabinet is used, provided with apparatus for performing two hundred experiments. As an indication of their cheapness, it may be said that the former are disposed of to the schools for \$5, while they would cost \$5 in England; and the latter for the same price, while they would bring \$40 at retail here. The kindergarten system is illustrated by diminutive models of bridges, railroads and mining operations, which are beautiful in themselves, and must be highly attractive to the youthful eye. Electricity, magnetism, galvanism and light, are created by instruments displayed in another case, and adjacent to it is one containing pneumatic apparatus, embracing an air pump in which the cylinders are constructed of glass, the movement of the piston thereby being visible, also objects to show the employment of heat and steam, the appliances of mechanics, hydrostatics and hydraulics. In the teaching of geography and astronomy, globes and atlases are freely employed and a full line of these are displayed, as is also a new instrument devoted to instruction in the latter branch of science, entitled the Heliocentric Expositor of Terrestrial Motion, which is esteemed an admirable addition to the improvements being made with such rapidity in Educational pursuits."

The prominence given to the preparation of school apparatus and appliances in Ontario, is owing to the existence of what is called an *Educational Depository* established by the Government at Toronto. From it all the schools of the Province are supplied at half-price, or less, with school books and all articles of school furniture and apparatus. The intelligent officers in charge of the Depository have in the course of years collected and had manufactured, a large supply of the kinds of articles that have been forwarded to the Exposition. This Depository and its working we desire by and by to make the subject of a special editorial in *The Journal*.

That the Canadians are quite well aware of their success at the Exposition will appear from the following paragraph cut from the *Toronto Globe*: "Meritorious as the Pennsylvania display is, it falls far short of our own in some respects, while in general effect it has only the advantages derivable from greater extent and a better opportunity for arranging articles in an artistic fashion. The exhibition of apparatus of every kind from Ontario is far ahead of any exhibit from any other country, and will almost equal the whole of them put together. Of specimens of pupils' work, on the other hand, we make comparatively a poor show, and exhibiting institutions being comparatively few."—*Pennsylvania School Journal*.

CANADA.—*Le Courrier des Etats-Unis*, in speaking of the part taken by the Dominion of Canada at the Centennial Exhibition, expresses itself thus: "The Canadian exhibition or department has, over, the American one (to which it can only be compared in