

nations. It behoves us, however, to do something more than this. We must provide the requisites for the advancement of our children, not only that they may keep pace with, but, if possible, take precedence in the future. We have carefully examined the various educational exhibits to ascertain what our educationalists are doing in this respect, and are to be pleased to find that many of our States have adopted the Kindergarten system for very young children; but that seems to be the extent of their object teachings. The country that exhibits the finest collection of educational appliance for this important branch of education is Ontario. The exhibits of the Canadian School-apparatus Manufacturing Company, of Toronto, in the Ontario education department in the Main Building, have received the international judges' award for their excellence and cheapness. The system adopted by them to teach natural history is acknowledged to be superior to the old, dry method by books and charts; instead thereof they teach from nature. For example, take botany:—They have cabinets containing the raw and manufactured material, from which the child is gradually brought to understand the nature and uses of the plant examined. Supposing the object to be wheat, specimens of the seed, bran, flour, biscuit, macaroni, straw, straw plait, straw paper, &c., are exhibited, and, as they are properly classified, they not only are useful to teach young children the importance of common things, but they impart an important lesson in botany. These cabinets, containing, on the average 200 specimens illustrative of the animal, vegetable, and mineral kingdoms, are sold at \$12 each. The models exhibited by the company for teaching physiology and anatomy are superb. More information can be gained of the true position and the formation of the organs of circulation and respiration, the necessity of cleanliness, the importance of attention to the teeth, &c., by studying these models for a few hours than can be obtained from books in years of close study. Their system of teaching chemistry, too, is considered by experts to be very superior. This science is so simplified that children can perform experiments. They have a laboratory for boys and girls—price, \$2 containing chemicals and apparatus to perform over 120 experiments in chemistry, manufactures, domestic economy, physiology, &c. Students' laboratories are supplied at \$6 each, with a book, to perform 200 experiments. The laboratories for teachers and normal-school students, price \$12 each, are marvels of cheapness. They contain all the chemicals and apparatus to perform the ordinary experiments with the metalloids as found in elementary books on chemistry. We have no doubt that this important branch of study, which is the keystone to our manufactures, will receive an impetus and become one of the necessary studies in our school system, as we understand several of our neighboring States have already ordered samples of these laboratories for the purpose of introducing them into their schools. We wish the Canadian School Apparatus Company success in their new enterprise, and shall be glad if they consent to the wishes of some of our prominent educationalists by establishing a manufactory in the United States.—*Philadelphia Press*

The Science of Teaching.

The *Spectator*, (London, England,) has the following sensible remarks on the Science of Teaching:—

It is remarkable that "Pädagogik," or the Science of Teaching, has never yet been thought worthy in this

country of formal recognition as a subject of academic instruction. The lawyer is presumed to study the principles of jurisprudence, and the medical student to learn anatomy and therapeutics; provision is made in universities and colleges for professional instruction of this kind, and even for those profections on theology and pastoral work which are presumably necessary for the skilled minister of religion. But for the special aid of one who is to devote himself to the profession of school-keeping, no provision whatever has yet been furnished by the universities. There is among scholars a vague impression that teaching is not a science to be studied, nor an art to be learned by systematic practice, but a knack, which comes easily to men and women who know their subject, and are in earnest in their wish to teach it. Given a well-instructed master, a good text-book, and an obedient pupil, and the teaching apparatus is presumed to be complete. Yet all experience proves that the possession of knowledge is no guarantee whatever for the power to impart it; and that there is the same difference between the skilled and the unskilled teacher, as between the trained and the untrained practitioner of any other art. Much, undoubtedly, of this difference comes from temperament and natural aptitude, from the intellectual and moral sympathy which enables some men and women to know what is going on in the interior of a child's mind, and to adapt their instruction in accordance with such knowledge. No mere study of methods will ever place one who lacks these finer instincts on a level with one who possesses them. Nevertheless, there are right ways and wrong ways of presenting truth; there are principles underlying every rule of practice which a good teacher adopts, and the investigation of them is not without great value. To the average schoolmaster such knowledge is indispensable, as a means of saving him from mistakes and enabling him to economise his resources. And even of one who is exceptionally qualified by natural insight and by a love of his work, it may be safely said that his work will be done better—as all the work of life is done better—in proportion to the thought and study which have been devoted to it, and to the degree in which he has laid hold of the reasons which make one course of action wiser and more practically efficient than another.

In the sphere of primary education, this principle has been generally recognised, and the recognition of it has been attended with the happiest results. The training college system, the creation of the last thirty years, was partly founded and almost wholly sustained and developed by the operation of the Education Department of the Privy Council. It has been practically limited in its operations to the teachers of schools for the poor under Government inspection. Yet within that range its results have been very remarkable. The class of agents whom it has employed was not the most promising. The early advantages, the knowledge of the world, and the general culture of the certificated teacher, have—as is well known—been comparatively small. He has, however, proved himself to be a most valuable public servant. His knowledge may not be extensive, but what he knows he can teach; and he has acquired the art of organising and managing a school, and of giving certain useful instruction to the largest number of scholars in the shortest possible time. No one who has had opportunities of comparing the elementary schools of the present with those of the past can fail to perceive the enormous difference between them; nor to doubt that in the trained and certificated teacher we have a highly efficient instrument, whose efficiency is mainly due to the systematic study of the art and science of his profession.