

tance, and then attempting to repeat the motion. The general result was, that the reproduced motion was larger than the original, when the motion was made on the hand's own side,—for the right hand on the right side, and for the left hand on the left.

In conclusion, Dr. Loeb asks the question, "On what basis does the mind conclude that the motions of the two hands are equal?" He answers that it is due to the time element. There is an unconscious attempt to translate space into time, because we can judge the latter more accurately; and, in several series of experiments in which the time was recorded, it was found, that, even when the two hands moved quite different distances, the times of the two motions were approximately the same. The mind, then, judges two motions to be the same when they are innervated by equally intense impulses, and consume equal times; and the asymmetry is referred to the fact (due to increased practice, or what not) that an equal impulse will impart a larger motion to the one (the preferred) hand. That other factors enter into the problem is not to be doubted: for example, if one thread is rough and the other smooth, the same distance on each will seem longer on the rough thread, by more frequently stimulating the skin. Dr. Loeb promises a continuation of the observations.

FALSE TESTIMONY OF CHILDREN.—The trial at Tisza-Eszlar is probably sufficiently well in mind to serve as a type of the false evidence given by children. Dr. A. Motet has collected a number of similar cases, and shows very distinctly that the children in question are quite generally the subjects of morbid tendencies. Frequently they are the offspring of a degenerate stock, and are characterized by weakness of will, and a love for excitement. The analogy between these suggestions accepted and elaborated by these children in a waking condition, and precisely the same phenomena in hypnotic states, is evident. Dr. Motet suggests several hints by which such testimony can be prevented from imposing upon the courts, and urges that a careful physician be summoned when any such suspicious testimony by a child is deposed. It illustrates anew the close connection between responsibility and nervous affections as well as between the doctor's study and the court's dictum.

SMELL AND TOUCH VERSUS SIGHT.—Dr. Fauvelle calls attention to the inverse relation between the development of the visual and the olfactory apparatus, and holds that smell, when supported by touch, can in some forms of life outweigh sight. The snout, when it occurs, is always at the most anterior portion of the body in progression, and through this heralding position becomes endowed with a most delicate sensibility, often of mobility too, and at the same time brings into prominence the olfactory mechanism. The changes in the form of this naso-labial organ of touch follow all the changes in the prominence of the organ of smell, and prevent a special development of the organ of vision. In man and the primates this loses its importance and yields to sight, which superiority is assigned to the parallelism of the visual axes, and establishing of the biped position, where the organ of smell is no longer at a prominently anterior position of the body.

BOOK-REVIEWS.

Industrial Education, a Guide to Manual Training. By SAMUEL G. LOVE. New York and Chicago, E. L. Kellogg & Co. 8°.

It is inevitable that there should spring up in the earlier stages of a movement for educational reform a large literature. Some of this will naturally be good; but much of it, owing to superficial knowledge or misconception, will be bad. Public opinion on the reform in question is in large measure formed by these early books, and for that reason, if for none other, the critic should scan them with great care.

Mr. Love's book is one of the first in this country that undertakes to explain in detail what manual training really means; and, as a great many people are just now asking the very question which it professes to answer, it will naturally have a large number of readers. But it is extremely important that only correct information should be given concerning manual training, and that one or two sources of general confusion as to its purpose and aim should be removed.

We have read Mr. Love's book carefully with these points in view. The book is divided into five parts and an introduction. The first part discusses the claims of manual training, and the second describes what has been done in Jamestown, N.Y.,—in which town Mr. Love is superintendent of schools,—in development of this training, and gives the course of study pursued therein. The third, fourth, and fifth parts discuss the organization and carrying-out of manual training in the various grades of the primary, grammar, and high schools, respectively. Mr. Love has worked conscientiously, and has beyond question accomplished a great deal of good. His fellow-citizens seem (pp. 27-29) to approve his work, and to be in harmony with his ideas. But, we regret to say, taking Mr. Love's own language as the expression of his ideas, he himself is still very much in the dark as to what the movement in favor of manual training really signifies.

Those persons who have an insight into the real aim of manual training know how difficult it is to make others understand that the manual training urged is mental training: for no one who understands our public-school education would for a moment urge that any thing which is not purely and simply educational should find a place in it. Manual training would not train the hand *per se*, but the hand as the servant of the mind, and as one of the mind's agents of expression. Manual training, which is technical and not mental, must be provided for, but apart from and not in the public schools. This has been insisted upon so often lately, that we had hoped the point was clear to all, and it is extremely discouraging to find Superintendent Love marking off his manual training as something foreign to mental training, as he explicitly does in several passages of his introduction, and impliedly does throughout the book. In fact, the author's idea is that manual training should be added on to the school course, as a matter of privilege. The correct idea is that manual training should be incorporated in the common-school course as a matter of right. The two conceptions differ widely in theory, and still more in practice. For example: the clear-sighted advocate of manual training would never urge, as does the author (p. 7), that it should be introduced because "very many children dislike books." This argument, if pursued logically, would create havoc in any system of education.

Every once in a while the author seems to approximate the proper point of view, as when (p. 33 *et passim*) he classifies writing, drawing, gymnastics, and card-board work together under the head of manual training. But when we turn to his carpentry course, and see how wholly blind he is to the proper relation of drawing to constructive work, we despair again.

Minor criticisms might be passed on various portions of the book, but this fatal misconception of manual training in general renders them unnecessary.

Superintendent Love has proved to the satisfaction of himself and his townsmen that the old-fashioned curriculum does not satisfy the educational demands of to-day, and in adopting manual training he did a wise thing; but his book proves that he adopted it for the wrong reasons and in the wrong way.

Philosophy of Theism. By BORDEN P. BOWNE. New York, Harper. 8°.

PROFESSOR BOWNE'S reputation as a thinker rests on a secure foundation, and that alone would entitle this his latest volume to careful consideration. But the 'Philosophy of Theism' will command attention and respect on its own account, for it is in many ways a remarkable book.

In the first place, it is a new evidence of the interest now being taken in the philosophy of religion, and may well take a place beside the volumes of Flint, Diman, Fisher, and others as a masterly exposition of the theistic argument. It is superior in profundity to the recent philosophico-religious books of Royce and Abbott, although we miss in it some of the flashes of brilliancy which make the latter books such interesting reading and constitute so much of their charm.

But Professor Bowne's aim in the work before us is not, as it seems to us, wholly religious. He aims to show that both theism and modern science stand upon a common substructure; namely, the philosophy of belief or faith. Indeed, the author goes even