

The Religion of Science. By DR. PAUL CARUS. Chicago, The Open Court Pub. Co. 12mo. paper.

In this work Dr. Carus has undertaken to expound what he believes is to be the religion of the future. He disbelieves, as our readers doubtless know, in anything supernatural, but holds fast to the ethical teachings of Christianity and to the Christian ideal of character. It is true that he uses the Divine name frequently; but he expressly teaches that God is not a person, but merely the eternal and all-controlling power in nature. Sometimes he uses the language of pantheism; yet he insists that his doctrine is not pantheism but, as he terms it, entheism. He denies the existence of the soul as a distinct entity, and of course disbelieves in its immortality. Everything in the old religions that savors of the supernatural he regards as mythology, and maintains that it is destined to pass away, leaving nothing but the moral teachings and aspirations bequeathed to us by the prophets of old. He holds his creed with unquestioning faith, and is rather intolerant of those who still cling to the ancient creeds. "What the Roman church claims to be," he says, "the religion of science is. The religion of science is the catholic and orthodox religion." He is rather bitter against the churches for their adherence to forms and ceremonies and to what he deems erroneous doctrines, and declares that their religion is radically different from that of Christ himself. With much that he says we fully agree, and we respect the moral earnestness with which he discusses the problems of life and duty; but we are not prepared to follow him in rejecting theism, and we have much less confidence than he seems to have in some of the doctrines and criticisms that are put forth in the name of science. Yet we have read his book with interest, and we cordially echo the sentiment he expresses that "blessed is he who trusts in the truth, who hearkens to its behests, and leads a life in which obedience to truth is exemplified."

The work here noticed is to be published with others in a series entitled "The Religion of Science Library," the volumes of which will be issued bi-monthly in paper covers at 25 cents each or \$1.50 a year. The first number in the series, which bears the date of September, 1893, is a reissue of Max Müller's "Three Introductory Lectures on the Science of Thought," which was noticed in these columns when it first appeared some years ago; and other works new and old will follow in due season.

Heat. By MARK R. WRIGHT. Longmans, Green & Co., N. Y., 1893, 336 p. 12 mo. \$1.50.

This text-book of heat and thermodynamics is a well-planned and well-executed work, suitable for the classes of high schools and colleges in which an elementary course has been given, as introductory to this subject, in the usual first lessons in physics. It is made up with a view to use in connection with instruction in the laboratory, as well as in the lecture-room, and contains an excellent outline of the thermal and thermodynamic principles constituting the modern science of heat, illustrated by experiment, and enforced by numerical examples, not numerous but very carefully selected, and in every case apposite to the text. The book is, in physics, what Remsen's text-book is in chemistry, a well-prepared outline of the theory and experimental method of exposition of the science. The units employed are both the British and the metric, the C. G. S. systems. Students about to take up the applications of such principles in the advanced classes of colleges, and especially of the technical schools, will find this an excellent preparatory course. In the introduction to the chapters on thermodynamics, the work of Rumford and of Davy is given proper place, and more credit is given the former than is usual in earlier treat-

ises. Regnault's work is quite fully discussed, and the algebraic treatment of the thermodynamics of gases and vapors is unusually satisfactory. The book is printed on heavy paper, in excellent type, is well illustrated, and well bound.

Outlines of Pedagogics. By PROFESSOR W. REIN. Translated by C. C. and Ida J. Van Liew. London, Swan Sonnenschein & Co.; Syracuse, N. Y., C. W. Bardeen. 12mo. \$1.25.

This work, by the director of the pedagogical seminary at the University of Jena, is written from the standpoint of the Herbartian philosophy, and is designed to set forth Herbart's theory of education as developed and modified by his disciples. The work, like so many others that come to us from Germany, is not always easy to understand; and, though it contains much that is sound and suggestive, we doubt if it will effect any radical change either in the theory or in the practice of English and American educators. The whole book is written from a German point of view and with reference to German needs; and the division of the school system according to the German division of society into classes is assumed as something final. The parts of the book that are likely to be most interesting to American teachers are those in which the author discusses the end and aim of education and the subjects and method of instruction. The end at which all education ought to be directed is, in Professor Rein's opinion, the formation of character; and he lays such exclusive stress upon the training of the will that he almost forgets that the intellect and the feelings are entitled to consideration on their own account. Nor do we find that he offers anything essentially new as to the means of forming character; for, though he devotes considerable space to the subject, he suggests nothing to the purpose except the study of good literature and the employment of teachers of excellent character. With regard to instruction Professor Rein holds opinions somewhat different from any now prevalent in this country; and, while we cannot endorse all that he says on the subject, there is much in it that is suggestive. He holds, with Comte and others, that the education of the child ought to follow the steps that the race has taken in its historical development; but, notwithstanding the authorities that may be cited in support of this theory, we venture to think that an education based upon it would be ill adapted to the requirements of a civilized age. The importance of the right method in teaching is a subject on which the author lays great stress, and practical teachers can hardly fail to get from him some hints and warnings that will be useful. The book will serve a good purpose in drawing renewed attention to the importance of moral training, and also by presenting certain aspects of educational work that have not been generally discussed in America.

Birds of Michigan. By A. J. COOK. Bulletin No 94, Michigan Agricultural College. 148p. illus. 8vo.

This Bulletin marks something of a departure in the work of experiment stations. Most of the bulletins issued under the auspices of these wards of the Government are devoted to purely agricultural topics such as feeding of pigs or cows, dairying, planting potatoes, cultivation of corn, value of fertilizers, spraying for fungous or insect diseases and kindred subjects. Some few of the stations publish work of a high character, work which shows some originality. It must be confessed, however, that too much of the station work is of a very poor quality. Often it is a rehash of some previously issued experiments, in which the errors are copied along with the correct statements. Often it consists of descriptions of hastily made experiments which lead to no practical results; or else it may be an account of some experiment which had been tried with negative results years before, but of which the