

a science of pedagogics? the author grapples at the outset; and while he reaches an affirmative answer, which we believe to be the proper one, he does so in a ponderous and not very direct manner. The following chapters, some of the titles of which are 'The science of education, its nature, its method, and some of its problems,' 'Contribution to the science of education values,' 'The mode of educational progress,' 'The potency of ideas and ideals,' 'Lessons from the history of education,' 'The secularization of the school,' 'Teaching as a trade and as a profession,' 'Education as a university study,' 'The institute and the reading-circle,' offer us excellent samples of what the scope of pedagogics is; for its points of tangency with psychology, ethics, and history, as well as the fact that it includes both theory and practice, are all indicated. Professor Payne says so much and on so many subjects, that we can best give an idea of his thought and method of treatment by letting him speak for himself. For example: in protesting against the erection of infant psychology, and therefore infant education, into a science apart, he says:—

"I am very far from denying that there are differences between a child's mind and a man's mind; but I insist that these are differences in *degree* or *power*, and not in constitution. It is freely admitted that these differences in power should be observed and heeded, and that mothers and nurses may do some real service by their registration of the phenomena of infant life. What I protest against is the present tendency to exaggerate these differences, and to assume that the child's education must be considered quite apart, as though he were a being *sui generis*. I venture to express the belief that one of the most serious errors in primary teaching arises from an exaggerated notion of the differences between child mind and mature mind. Some observed difference furnishes the devoted enthusiast with a clew; and then this clew is followed up so persistently, and so far, that one section of the child's mind is aroused to preternatural activity, while another section lies unused and torpid. It is observed, for example, that the sense activities predominate in childhood. The teacher lays hold of this clew, and there is such a persistent and copious feeding of the senses, that the physical section of the child's mind becomes abnormally active, and the intellectual section as abnormally inactive. It would seem to me a great gain if there were to be a return towards the older conception that the child and the man are essentially one, and that for infancy, childhood, and youth, there should be considerable sameness in instruction" (p. 19).

"The accomplished teacher should be a man of

science in the sense that the accomplished physician is a man of science. I am persuaded that the motive which most attracts minds of the higher order into certain vocations is the opportunity for the free exercise of tact, talent, ingenuity, invention, discovery, and all the resources of a well-stored and well-disciplined mind. Minds of the better order love to take chances, to run risks, to anticipate the new, and to compass by sagacity some victory over danger and difficulty. To all such minds, the possibility of achievement is an inspiring motive of the highest order" (p. 291).

"The manifest tendency of the times is towards the secularization of the school. The modern state has become an educator, and relegates religious instruction to the family and the church" (p. 216).

Lack of space forbids our quoting further, but we recommend Professor Payne's book to all who can appreciate earnest thought on educational subjects.

DAS VOLKSSCHULWESEN IM PREUSSISCHEN STAATE.

If the three large volumes of the compilation of Schneider and von Bremen, of which the first is before us, are provided with a good index, they will be invaluable for the student of the Prussian educational system and its development. If the index should be wanting, or not thoroughly made, the immense amount of material contained in the volumes will be effectually buried. The first volume is a large octavo of nearly a thousand pages, and contains the official regulations regarding "die Stellung der Behörden und Beamten, die Ausbildung und die Stellung des Lehrers;" and it is safe to say, basing the assertion on such an examination as we have made of the book, that not a single point is left untouched. The second volume will treat of "die Organisation und Verwaltung der Schulgemeinde;" and the third, of "die Schulpflicht, der Privatunterricht, die Schulzucht, der Unterricht in den verschiedenen Volksschulen." Our information about the secondary schools and universities of Germany is usually more full and explicit than that concerning the popular schools; but, with this work of reference at hand, we need no longer be in ignorance of the minutest detail concerning the latter. It must be borne in mind, too, that the official organ of the ministry of public instruction in Prussia, the *Centralblatt für die gesammte Unterrichtsverwaltung im Preussen*, is in

Das Volksschulwesen im preussischen Staate, in Systematischer Zusammenstellung der Gesetze und Verordnungen, etc. Compiled by Dr. K. SCHNEIDER und C. VON BREMEN. Berlin, Hertz, 1886. 8°.

its twenty-seventh year of publication, and that it is difficult, if not impossible, to procure the earlier volumes. The present work, by reason of its having used the material of the *Centralblatt*, serves as a substitute for the first twenty-six volumes of the latter, and is therefore especially to be recommended to libraries which have not a set of the *Centralblatt*.

The school-laws are here codified according to their place in the system, and not chronologically, which is an undoubted gain, especially to the foreign reader; and, as the dates of the various laws are always appended, nothing is lost by the change. As is the case with most compilations of this character, we are obliged to read a great deal that we care nothing about in order to reach the data of which we may be in search. But we should be willing to put up even with German prolixity and minuteness in order to gain so indispensable a work of reference as this is.

DAWSON'S ZOÖLOGY.

ONE dislikes to severely criticise a book bearing on its titlepage such a widely and justly honored name as that of Sir J. W. Dawson, and yet it is difficult to see what good purpose is to be served by this work. The author sets forth his object as, "to furnish to students, collectors, and summer tourists in Canada, an outline of the classification of the animal kingdom, with examples taken, as far as possible, from species found in this country." From the footnote on p. 6, it would also seem that it is intended as a text-book. Eighteen small pages are devoted to a consideration of the animal tissues and functions, twelve more to the subject of classification in general, and the remainder of the book to 'descriptive zoölogy.' As may be inferred, the account of the tissues, etc., is very inadequate; and such a statement as that protoplasm is albumen (p. 6.) does not tend to give confidence in the accuracy of the work. There is not a satisfactory account given of the structure of any single animal or group: the most important thing to be learned of an animal would seem to be its name, and the name and definition of the group to which it belongs. Nor are the views of classification, in some cases, such as will find general acceptance among naturalists.

As a text-book, this work will not, we fear, prove satisfactory; the amateur will not find it easy to identify his collections by its aid; and, while there may be in it "many facts derived from original observation, and not otherwise ac-

cessible," it is not likely to become a valuable help to the specialist.

The illustrations are in most cases badly executed and sometimes misleading.

DR. WASHINGTON MATTHEWS, surgeon in the U. S. army, has made a valuable contribution on the causes which are at work in carrying off the Indians of our country. One of the most important of these he finds to be consumption. From the census of 1880 we learn, that, while the death-rate among Europeans is 17.74 per thousand, and that among Africans 17.28, the rate among the Indians is no less than 23.6. In diarrhoeal diseases the Indian death-rate is not greatly in excess of that of the other classes. Measles gives a mortality of 61.78 per thousand. But it is under the head of consumption that the difference between the Indians and the blacks is most conspicuous; the rate among the former being 286 as compared with 186 among the latter, while among the whites it is but 166 in the thousand. Dr. Matthews finds, that, where the Indians have been longest under civilizing influences, the consumption-rate is the highest; meaning by the term 'consumption-rate' the number of deaths from consumption in a thousand deaths from all known causes. Thus the rate among reservation Indians in Nevada is 45; in Dakota, 200; in Michigan, 333; and in New York, 625. The evidence appears to show that consumption increases among Indians under the influence of civilization,—i.e., under a compulsory endeavor to accustom themselves to the food and the habits of an alien and more advanced race,—and that climate is no calculable factor of this increase. It is a general supposition on the frontier that it is change of diet which is the most potent remote cause of consumption among the Indians. Dr. Matthews says he once knew of a previously healthy Indian camp of about two thousand people, where, in one winter, when the buffalo left their country, and they subsisted on flour and bacon furnished by the government, the majority were attacked by scurvy, and about seventy died of the disease. It is, however, also ascertained that the consumption-rate is high at agencies where the supply of beef is liberal, and, as has already been said, especially high among the Indians of New York and Michigan, whose diet is by no means a restricted one. It is evident that the true explanation for this remarkable predisposition of the red-man to pulmonary tuberculosis has not yet been given, and that a fruitful field is open to those whose qualifications and tastes lead them into such investigations as these.