furnishes a report of the papers and discussions of the New Jersey Sanitary Association, which met in Trenton during December, 1888. Reports from local boards of health, and health laws and circulars, together with vital statistics, are also given in the report.

BOOK-REVIEWS.

Psychology as a Natural Science applied to the Solution of Occult Psychic Phenomena. By C. G. RAUE, M.D. Philadelphia, Porter & Coates. 8°. $3.50.

THE author of this work is by birth a German, and as long ago as 1847 he published a little book in the German language which is the nucleus of the present treatise. His psychological views are those of Beneke, whom he regards as the real founder of scientific psychology. In this work, however, the author's special object has been to explain the various "occult phenomena," such as hypnotism, thought-transferrence, etc., which have of late attracted so much attention; and the views presented on these subjects are the result of his own researches. The earlier part of the work is simply an ordinary treatise on psychology, containing some doctrines peculiar to the school of Beneke, but on the whole traversing pretty familiar ground. The author holds that all our states of consciousness and all our mental capacities arise from two sources, — the primitive or original forces of the soul, and the stimuli of the external world; the primitive forces, as he is careful to tell us, comprising nothing but the powers of sense. These primitive forces he also divides into two classes, — those that have been modified by external stimuli, and those that have not been thus modified, and which he calls void, unoccupied primitive forces. These forces and stimuli together he calls "mobile elements," by which we suppose he means active elements. These, then, being the sole sources of knowledge and mental power, the problem is to explain by means of them the occult phenomena in question. Dr. Raue holds that physical causes are wholly inadequate to the purpose, and that nothing but psychical forces will account for the facts. The soul he defines as "an organism of psychic forces externalizing itself in the organism of material forces which constitute the body. . . . The psychic forces are spaceless. . . . They act where they are, and yet apparently on objects far away in space, because for them there exists no space" (p. 522). But how is the action of one soul upon another, as in thought-transferrence, suggestion, etc., to be accounted for? Dr. Raue devotes many pages to the discussion of this subject; but it seems to us that he gets lost in a cloud of words. Here is the essence of his doctrine, which the reader can judge for himself. "The nature of thought-transferrence consists essentially in the excitation of the modification in the recipient similar to the one excited in the agent, and is effected by mobile elements, and principally by primitive forces partially modified or charged with external stimuli. Void primitive forces determine the concentration of the mind to the modification which is to be transferred. The mobile elements (as all soul-forces are spaceless) do not move in the sense of corporeal forces from place to place: theirs is an attraction of like to like, independent of corporeal distances or interpositions" (p. 400). We cannot think that Dr. Raue has solved the problem of the occult phenomena; but there are things in his book, nevertheless, that will interest not only special students of this subject, but also general students of psychology.

Reports on Elementary Schools, 1852-1882. By MATTHEW ARNOLD. Ed. by Sir Francis Sandford. New York, Macmillan. 12°. $2.25.

WE have here the various reports that Mr. Arnold from time to time made as an inspector of schools. They are, of course, written in his usual excellent style, and contain many remarks of more than merely temporary and local interest. Every thing statistical or of transient importance is omitted, so that the matter presented relates entirely to the general principles of education, subjects of study, methods of teaching, and other topics in which educators everywhere are interested. Mr. Arnold's district at first comprised most of the midland counties of England and a large part of Wales, but schools controlled by the Anglican and Roman churches were not under his charge. At a later time he had the oversight of all classes of schools, but only in a small district consisting of Westminster and its neighborhood. Mr. Arnold was evidently not well impressed with the character of most of the schools, and he complains of the slow progress they made. He speaks of the low degree of mental culture prevailing not only in the lower schools, but also among candidates for the teachers' training-schools, all of whom were eighteen years old or over. This lack of general culture he attributes to the want of true literary training; and he affirms that all the literary culture the mass of English school-children get is the ability to read the newspapers,— a remark which, we fear, is applicable to other countries than England. He strongly recommends the study of English grammar and analysis, on the ground that "grammar is an exercise of the children's wits; all the rest of their work is in general but an exercise of their memory." Besides grammar, he would teach what the Germans call *Naturkunde*, or the leading facts and laws of nature, with geography and national history; this programme being intended for pupils not over thirteen years of age. He deprecates the evils that result from cramming for examination, some of which he predicted in advance. He seems to have had a keen eye for every thing connected with the schools, attending even to the form of the desks, the cleanliness of the rooms, etc. The book presents no theories of importance but such as readers of Mr. Arnold's other works are already familiar with; but it contains much that will be interesting to educators.

The Principles of Empirical, or Inductive, Logic. By JOHN VENN. New York, Macmillan. 8°. $4.50.

THIS work contains the substance of lectures which the author has been giving for some years past to his pupils at Cambridge University. It is a discussion rather than a treatise; and the reader must be already familiar with the rudiments of logic, both inductive and deductive, in order to understand it. It is mainly devoted to induction, though there is a chapter on the theory of the syllogism, and other chapters on weights and measures, the possibility of a universal language, and other topics not really belonging to logic. The principal fault of the book is a tendency to trifling distinctions and over-subtle refinements of thought. For instance, Mr. Venn calls attention to the fact that in some departments of investigation, especially in social affairs, our own acts have an influence on the phenomena we study; and he maintains that this is true in all departments. Even the astronomer, he says, by moving to and from his instrument and by the movements of his hand in making his calculations, alters the position of every body in the universe. Again, he inquires whether we can drop a stone twice in the same spot, and answers the question in the negative, because, even if we could hold the stone in exactly the same position the second time, and at the same height, the weight and temperature of the air would be altered, and, anyhow, the moon and stars would not be in the same position as before. The book contains a great number of these hair-splitting distinctions; and, though a few of them may have some scientific importance, the great mass are hardly more than curiosities of thought.

But, in spite of this tendency to over-subtlety, the book is an able one, and professional logicians in particular will find in it much food for thought. Mr. Venn's standpoint is essentially that of Mill; but he goes rather beyond Mill in maintaining the merely probable character of all truth obtained by induction, and he uses the term "empirical" in the title of his book for the purpose of emphasizing this view. His theory of causation is the same as Hume's; while as to the methods of induction he adopts the views of Mill with but little variation. As regards the syllogism, he differs from Mill, holding that it really gives us new knowledge. He has some interesting remarks on hypothetical and disjunctive propositions, and advances a theory of disjunctives that is, we believe, new; and, though we can hardly agree with it, it is well worthy of attention. In his concluding chapter, Mr. Venn discusses the logic of morality and the moral sciences, on which he has some important remarks. He calls attention to the fact that investigations in social matters, and especially predictions as to what will happen, are more or less vitiated by the fact that the course of events will depend in part on what the investigator himself may choose to do, and that in the case of men of genius this influence of the indi-