

*Das Wissen der Gegenwart in Mathematik und Naturwissenschaft.* By EMILE PICARD. Authorized German edition von F. und L. LINDEMANN. Leipzig und Berlin, B. G. Teubner, 1913. 8vo. iv+292 pp.

THIS volume has for its prime object a sweeping survey of the state of the various sciences at the beginning of the twentieth century, with the intent of making very prominent the capital importance of what the scientist calls "theories." Their significance for the advance of science and what they may rationally be expected to yield is the subject for discussion. In addition to these, the rôle that the "concept" has to play, its yielding character under the influence of new facts and of the progress of new thought, is to be kept prominently in the front as one of the main features of the discussion. Science is viewed as an asymptotic approximation towards knowledge, the convergence of which is an undemonstrable postulate and may become as slow as that of certain series. The value of science is due to the fact that it is the child of the indissoluble marriage of the beautiful and the useful. Just as Carnot in studying heat-engines founded the science of thermodynamics, and Sainte-Claire-Deville in studying platinum founded the science of chemical mechanics; or on the other hand, as Newton in writing the *Principia* made it possible for navigators to sail unknown seas in greater security, or Ampère and Faraday with their interest in the action of currents upon currents made the modern electric power station a possibility; so in all ages science has proceeded from two parents: the love of order and harmony in thought, and the desire for those useful inventions that would make life more comfortable and powerful.

The book is practically a translation of Picard's *La Science moderne et son Etat actuel*, but the Introduction has been condensed and modified, and the first chapter has had some changes. In our judgment the Introduction to the original could very profitably have been kept, inasmuch as it states in a more definite way the exact point of view from which the subject is to be examined. We will therefore extract somewhat from this original source in order to show the capital importance of the book itself for all thinkers, and particularly for those who are inclined to yield to the seductions of a certain will-o'-the-wisp, which lures them to hunt for an ultimate and completely finished philosophy of the universe.