

The first edition of Professor Volkmann's book was reviewed in this BULLETIN, volume 4 (1898), page 355. What was said there will apply very well to the new edition. It seems superfluous, then, to do more than indicate very briefly the changes that have been made in the new edition. What in the first edition was the first lecture has in the second been incorporated in the closing lectures. The new edition begins with a historical retrospect on the development of science and its conceptions. A section on the subjective and objective elements in knowledge has been added, as well as an appendix containing two earlier papers of the author giving an appreciation, from the philosophical point of view, of the Newtonian system of mechanics. The book closes with a complete bibliography of the author's philosophical writings and very complete author and subject indexes.

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Repertorium der höheren Mathematik. Zweite Auflage, erster Band, erste Hälfte, herausgegeben von P. EPSTEIN. xv+527 pp. M. 10. Zweiter Band, erste Hälfte, herausgegeben von H. E. TIMERDING. xvi+534 pp. M. 10. Leipzig, B. G. Teubner, 1910.

THIS work is called a second edition of Pascal's *Repertorium of Higher Mathematics*.* It is, however, in many respects, a new work. The text has been thoroughly revised and greatly augmented. The half which has already appeared is nearly equal in size to the whole of the first edition. We are also informed (volume I, page viii) of a change in the purpose of the work. The aim of this edition is to give the reader, "a systematic survey of the total field of mathematics, based on genuine understanding."

As a further conspicuous departure from the original edition, which was the work of a single author, the editors have secured, as authors of the individual chapters, men particularly interested in the subjects covered by them. In the part of the work that has appeared, the authors are: in analysis, Hans Hahn, Alfred Loewy, H. E. Timerding, Paul Epstein; in geometry, J. Mollerup, H. Liebmann, H. Timerding, L. Heffter, G. Guareschi, M. Dehn, F. Dingeldey, L. Berzolari, G. Giraud, E. Ciani, H. Wieleitner. It is interesting

* A review of the first volume of the original Italian edition will be found in this BULLETIN, vol. 5 (1899), pp. 357-362.