

*Bibliotheca Chemico-Mathematica.* Compiled and annotated by H[einrich] Z[eitlinger] and H. C. S. London, Henry Sotheran and Co., 1921. 2 vols.: vol. I, xii + 428 pp.; vol. II, iv + 429-964 pp., numbered consecutively from vol. I; 127 plates.

This work was projected some time before the war, subscriptions being then invited, but it was not completed until the autumn of 1920, the publication taking place in the spring of 1921. It consists of a combination of catalogues of books in the large stock of Henry Sotheran and Co., of London, the well known dealers in standard treatises of various kinds, and contains more than 17,000 items. The catalogues were issued during a period of several years, and the prices represent conditions which have, in the course of events, been modified from time to time. As a sales catalogue of works on mathematics, astronomy, physics, chemistry, and allied subjects it is valuable not only because of the accuracy with which, in general, it has been compiled, but because it represents the trade conditions during a critical period of the world's history.

Of course such a work cannot, in the nature of things, be complete. This one represents simply the books that Messrs. Sotheran had in stock when the catalogues appeared. Since this stock was, however, unusually large, the work becomes a reference book of great value. This value is increased, in this instance, by the insertion of 127 plates containing 247 portraits and facsimiles, many of the latter being photographic reproductions of rare titlepages, and thus being of great help to the bibliographer.

At the close of the second volume there is an elaborate index of 96 pages, arranged by topics, a subject like geometry, for example, being subdivided into algebraic, analytic, cross-ratio, descriptive, differential, elementary, enumerative, Euclidean, four-dimensional, general, Greek, higher, infinitesimal, meta-, modern, natural, non-Euclidean, pictorial, plane, practical, projective, pure, solid, symbolic, and synthetic, with various further sub-topics of the second order.

Such an index would be of little use were it not for the fact that the catalogue is arranged alphabetically by names of authors, so that the index will not often be consulted. Even as it is, however, there is some difficulty in finding the items one wishes, owing to the fact that the work consists of a large catalogue, a supplement, a set of addenda, and several sub-catalogues. Suppose, for example, one who is unfamiliar with the work wishes to find the Scientific Papers of John Couch Adams, where would he look? The answer is, under "Further Addenda" on page 786; but what should lead him to look there is a mystery. Any reader who happens to have the work at hand might be interested to see how long it takes to run down Reuleaux's work on kinematics, published in 1876 (not the one of 1875). It is, therefore, a matter of regret that the publishers could not have given an index of authors. As between that and the one so laboriously compiled, the one by names would have been far more useful.

In spite of the annoyances that come from the index, however, the work is so valuable that it should have a place upon the shelves of all who are interested in the history or the bibliography of mathematics.

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