The congruence is of order 3 and class 2, dual to the congruence of axes in a linear sheaf of complexes. The discussion of the distribution of the lines on ∞^1 coaxial hyperboloids and their association to the conjugate congruences (*i. e.*, such that every complex of the first sheaf is in involution with all those of the second) is followed by a more thorough study of the parametric hyperboloids themselves. The pedal surface is coincident with the mean surface; it is a particular form of the Steiner surface. The focal surface is the same for both congruences; it is of order 6 and class 4. This surface is exhaustively discussed, first geometrically, then by means of elliptic functions.

After the treatment of the general case is completed, each particular case is fully discussed. In these 70 pages is found not only a systematic and far-reaching discussion of the configuration named, but also a large number of other problems suggested that might furnish themes for further investigation. The treatment differs essentially from that of other authors in the emphasis put upon particular and degenerate forms. While others confine their attention to the so-called "general case" — a case which in many applications does not exist at all — the present work concerns itself much more with each particular type, so that in the applications no exceptions are presented.

In conclusion we would say that the author has produced a work that will for some time furnish material for study and reflection. The style is not inviting, and the treatment is frequently involved, but the author has presented a new field of mathematics. Many commentaries will be necessary to make the work generally accessible, but they will surely come.

VIRGIL SNYDER.

CORNELL UNIVERSITY,
October 12, 1903.

ENCYKLOPÄDIE DER ELEMENTAR-MATHEMATIK.

Ein Handbuch für Lehrer und Studierende. Von HEINRICH WEBER und JOSEF WELLSTEIN. Erster Band. Elementare Algebra und Analysis. Von H. WEBER. Leipzig, Teubner, 1903. xiv + 447 pp.

IT was with much interest that scholars learned, a few years ago, of the proposed appearance of an Encyklopädie der Mathe-