

*Fünfstellige Tafeln und Gegentafeln für logarithmisches und trigonometrisches Rechnen.* Herausgegeben von DR. HERMANN SCHUBERT. Leipzig, Druck und Verlag von B. G. Teubner, 1897. 8vo., 157 pp.

*Tafeln zur Berechnung der reellen Wurzeln sämtlicher trinomischer Gleichungen, etc.* Von PROFESSOR DR. S. GUNDELFINGER. Leipzig, B. G. Teubner, 1897. 4to., 15 pp.

Dr. Schubert has introduced into his Tables a feature which deserves notice, although its usefulness is open to doubt. He gives the ordinary tables of logarithms of numbers from 1 to 11,000 and of the principal trigonometrical functions. But he has also tabulated the numbers corresponding to the mantissæ from .0000 to .9999. It is difficult to see what good purpose is served by these latter tables, especially in a book evidently produced for the beginner. Except in calculations of a very special kind, tables of logarithms are only useful in so far as they assist in shortening arithmetical operations and for such purposes it is usual, whenever possible, to use five-figure tables to obtain results which are to be correct to four significant figures. We cannot, therefore, see the value of a table giving the number to five significant figures corresponding to four-place mantissæ; a four-place table is all that is required and this can be conveniently mounted on a single card. Even if four-figure tables be used to obtain results to four significant figures, there will be no time saved by looking up the mantissæ in Dr. Schubert's special tables, they can be equally well found from the ordinary tables, and errors would probably occur in the use of two sets of tables—each of the same form, notwithstanding the difference of type.

The manner in which the tables are spaced is probably a question of individual taste. The method of dividing them into blocks of five, adopted into most of the best tables, seems preferable to that given here, where we have a line between every 0 and 1, and between every 9 and 0, and an extra space between each 3 and 4, and between each 7 and 8. The type and general appearance of the book are, however, good, and it has the unusual merit of being printed on strong paper. Detailed directions and "guide-words" are given, so that the person using the tables need have no knowledge of what he is doing.

Within a space of seven octavo pages Dr. Gundelfinger gives complete tables for the solution of the "Equation with Three Terms," according to the method of Gauss, with four-place logarithms. For most purposes these are amply