Mathematische Formelsammlung. By O. Th. Bürklen, revised by F. Ringleb. Berlin and Leipzig, Walter de Gruyter, 1927. 241 pp.

This little volume of the Sammlung Göschen contains a very complete list of the important formulas and theorems of what the mathematician would call elementary mathematics. The subjects included are arithmetic, algebra, elementary theory of numbers, plane and solid geometry, plane and spherical trigonometry with applications to geography and astronomy, plane and solid analytic geometry, differential and integral calculus, differential geometry, and differential equations.

The table of contents and a brief index make it very easy to locate a formula or theorem and the typography is excellent. The book may be recommended as a convenient source for those of us who hesitate to trust our memories for formulas and theorems which we seldom use.

Under the heading "Literatur" there occurs only one citation, namely, the new edition of Pascal's Repertorium by Salkowski and Timerding, which is likely to form the basis of any other collection of mathematical formules.

W. R. LONGLEY

Les Bases de la Géométrie et de la Physique. L'Invariance de L'Espace Euclidien. Par Clément Laurès. Paris, Blanchard, 1928. 125 pp.

According to a statement on page 1, the physicist will say that the remarkable usefulness of euclidean geometry in physics is due to the fact that it investigates the relations of invariable solid bodies, and that measurements made in accordance with it reveal veritable constants of nature; while the mathematician will affirm that there is an infinitude of systems of geometry all equally possible and that the basis of choice among them rests on considerations of convenience, and not on logical necessity. To M. Laurès, the latter answer is unsatisfactory; and that of the relativists is still more so. If the parallel postulate of Euclid is indemonstrable, then (according to the author, p. 4) geometry has no solid foundation. To show how to demonstrate this postulate is the avowed purpose of the book—a purpose which the author (p. 5) "presents with confidence to the enlightened public." He says (p. 5): "The indemonstrability of this postulate is the first article of the contemporary *Credo* of science. The reader will see how this Credo is false on this point." "The non-euclidean geometries were one of the most stupid inventions of the nineteenth century." "The human reason is sick." And here the author undertakes to administer that intellectual remedy which shall restore it to health. With this restoration he would also remove the "stupidity" of relativity from modern science. "Whatever contains truth," he says on page 5, "can be very simply explained by means of invariant euclidean space." It is improbable that any mathematical reader will now be seriously interested in an argument whose avowed purpose is to demonstrate the parallel postulate of Euclid.

R. D. CARMICHAEL