general expression for the order of the group associated with each of these figures is also given. The omission of a phrase from the theorem at the top of page 256 is easily corrected by reference to the formula at the bottom of the preceding page.

The fourth and final section treats "Die runden Polytope." In the work on the hyper-sphere one notices such topics as, the sphere passing through $n+1$ points, the sphere touching $n+1$ R_{n-1}'s, the sphere touching $n+1$ other spheres, the configuration of the centers of similitude of $n+1$ spheres, the content and surface content of the sphere, and the content of the spherical sector and segment. The hyper-cone and cylinder are similarly treated. Under general rotation figures, one finds the quadric spreads generated by revolving a flat spread about a flat spread as an axis, the torus spreads and the Guldin spreads obtained by revolving hyperspheres and linear polytops respectively.

Since the book is largely a compilation of previously known results, one regrets that references to the literature of the subject are not more numerous and specific. This second volume is better than the first in this respect, but still leaves much to be desired.

The book will doubtless prove to be a valuable reference work to those who are interested in, and have use for, the metrical formulas of higher-dimensional geometry; but many readers will doubtless share with the present writer a regret that the author's point of view has been so largely metrical, both in his choice of topics and in his method of treatment.

W. B. CARVER.

Theory of the Algebraic Functions of a Complex Variable. By J. C. FIELDS. Berlin, Mayer & Müller, 1906. v + 186 pp.

THE work before us is not intended as a treatise or text-book on the theory of algebraic functions along any of the well-established lines of treatment. It is, on the contrary, a new and distinctive mode of approach to this class of functions, although grounded on principles which in their essence are already familiar. The methods employed are purely algebraic, we might almost say arithmetic, in character, and in this respect the influence of Weierstrass may be said to predominate.

The fundamental idea on which the work is based is the notion of "order of coincidence." A given class of algebraic functions is defined as usual by a rational expression in (z, v)