dromy theorem which is based on the Riemann mapping theorem. The selection of material from a rich field always involves a question of choice. An account of Riemann's classic work on the hypergeometric functions would have found a fitting niche in this chapter (cf. Ahlfors, *Complex analysis*) but its omission is certainly understandable.

The seventh chapter treats entire functions and meromorphic functions in the finite plane. The material treated includes the well-known expansion theorems of Weierstrass and Mittag-Leffler, growth questions, and the Picard theorems treated via the Bloch theorem. The remaining two chapters treat elliptic functions, the gamma and zeta functions, and Dirichlet series.

This brief account of the book indicates its scope and point of view. As we have remarked there is an abundance of exercises on which the good student may sharpen his mathematical teeth. He will have more than one occasion to test his skill with category arguments. On the other hand, the reader will note an absence of the treatment of the more delicate boundary problems which appeal either to a refined use of the topology of the plane or to methods involving Lebesgue integration. This is of course in accord with the stated program and intent of the book.

This book is a very welcome addition to the collection of texts on the theory of analytic functions which are now available in English. It will be a rewarding experience to the earnest student.

MAURICE HEINS

The stability of rotating liquid masses. By R. A. Lyttleton. Cambridge University Press, 1953. 10+150 pp. $6.50.

Ever since Newton deduced from his theory of gravitation that the shape of the earth must be an oblate spheroid, there has been intensive research into the question of the possible equilibrium shapes of rotating liquids. Maclaurin and Clairaut showed that for any value of angular momentum a spheroid is a possible equilibrium form. In 1834 Jacobi showed that if the angular momentum is greater than a certain amount an ellipsoid with three unequal axes is also a possible form of relative equilibrium.

The question of the stability of these equilibrium forms was first investigated by Poincaré in 1885. There are two different kinds of stability possible for rotating systems, known as "secular" and "ordinary" stability. To explain the distinction, consider a system rotating with constant angular velocity ω and assume it has n degrees of freedom $q=(q_1, q_2, \cdots, q_n)$ relative to a set of axes rotating with