which it covers is now contained in other books on probability. However it is still an excellent introductory book to the Central Limit Theorem.

The main difference in this the Third Edition is that Liapounoff's inequality for the remainder in the Central Limit Theorem has been replaced by a sharper one due to Berry and Esseen.

S. D. SILVEY

REID, CONSTANCE, *Hilbert* (Springer Verlag, 1970), 290 pp., 75s.

This is an eminently readable biography, based on letters, extensively quoted, and on the recollections of many of Hilbert's former pupils and associates, with just enough mathematical commentary to give the story coherence. The book concludes with a reprint of H. Weyl's article in *Bull. Amer. Math. Soc.* **50** (1944), 612-654, giving a fuller account of Hilbert's contributions to invariants, number fields, axiomatics, integral equations and mathematical physics.

The author's sympathetic and authentic portrait of Hilbert in the setting of continental mathematics from the 1880's up to his death in 1943 goes far to explain the enormous influence which his unique personality no less than his mathematical work have had on subsequent developments.

R. SCHLAPP

KAPLANSKY, IRVING, *Commutative Rings* (Allyn and Bacon, Boston), x + 180 pp., $10.95.

The book is essentially an expansion of the notes which appeared under the same title in the Queen Mary College Mathematics Notes series, the major difference being that the author reverts to a traditional definition of regular local rings. No attempt is made to achieve completeness, the text consisting of a number of selected topics reflecting the author's preferences and prejudices; in particular primary decomposition is omitted. Supplementary material is contained in the numerous exercises of varying difficulty, some with hints, which occur regularly throughout the book. Conciseness is attained by a careful use of short crisp sentences which simultaneously create an impression of enthusiasm making the work highly readable. Quick reference is facilitated by the extremely attractive presentation. Although there are a number of misprints, mainly towards the centre of the book, these are not likely to confuse the reader.

The first three chapters require the reader to have only an elementary knowledge of rings and extensions of fields. Among the topics covered are the Hilbert Nullstellensatz, localisation, prime ideals in polynomial rings, prime ideals in integral extensions, Prüfer domains, Bézout domains, valuation domains, the Hilbert basis theorem, the Krull intersection theorem, Dedekind domains, rank and grade of ideals, Macaulay rings, the principal ideal theorem and regular local rings.

The fourth chapter is designed to be read in conjunction with part III of the author's " Fields and Rings "; even so a greater number of cross-references would be desirable. For example, the freeness of projective modules over local rings should be noted at its first application and the meaning of " minimal " in " minimal short FFR " should be explained. Admittedly reference to other sources becomes necessary upon the introduction of the long exact sequence for Ext but it does seem unnecessary for the author to refer to one of his papers for a proof of a result in the main text which could have been included so easily. Topics covered in the fourth chapter include unique factorisation in regular local rings, the Euler characteristic of an FFR, injective dimension and Gorenstein rings.

D. B. WEBBER

Brief Mention

COPSON, E. T., *An Introduction to the Theory of Functions of a Complex Variable* (Clarendon Press: Oxford University Press, 1970), viii + 448 pp., 30s. paper bound.

This well-known introduction to complex variable theory is now available in a paper-covered edition which will enhance its continued usefulness to students.