of the original text is retained and the original page numbers are inserted in the margin, so that reference to the original is easy.

The Introduction by Professor Braithwaite is almost as long as Gödel's paper; it is accurately and precisely written, primarily with the needs of a philosophical logician in mind. The Introduction begins by explaining the state of our knowledge of metamathematics at the time when Gödel's paper was written, and this is followed by accounts of arithmetisation, recursiveness, the " unprovability " theorem, and consistency. The final section deals with the syntactical character of Gödel's theorems.

There are accounts of Gödel's theorems in a number of books on mathematical logic. Thus this book will be valuable to mathematicians as a readily accessible source of the original paper. The Introduction by Professor Braithwaite is an account of Gödel's paper from a philosopher's point of view. The reviewer's reaction to this is perhaps what one would expect of a mathematician. The Introduction (especially the first, second, and final sections) is clear and informative, but in places one feels that a more mathematical approach is preferable.

R. M. DICKER

BURKILL, J. C., *A First Course in Mathematical Analysis* (Cambridge University Press, 1962), vi+186 pp., 22s. 6d.

This course is based on the idea of a limit and is intended for students who already have a working knowledge of the calculus. The analytical treatment of the calculus includes chapters on the Riemann integral and on differentiation of functions of several variables, but not on multiple integrals; the chapters on sequences and series exclude uniform convergence, upper and lower limits, and the general principle of convergence. There are examples after each section, and notes on these are given at the end of the book.

The author makes skilful use of informal explanations, and in general the ideas are presented extremely clearly and at a well chosen level. Thus the discussion of real numbers in the first chapter leads in a natural way to a statement of Dedekind's theorem as an axiom, and this is used to prove the existence of the supremum and infimum of a bounded set. More than average ability is necessary to follow the proofs of theorems, however, as steps have sometimes been omitted which might well have been included in an elementary textbook. Occasionally there is a serious gap; for example, the author does not prove that a convergent sequence is bounded. (This result is *assumed* on page 30; after the discussion of the sequence $1/(n-10)$ on page 24, the reader may doubt whether it is *true*).

These reservations are small, however, and it is a pleasure to be able to welcome a book on analysis written by an author who has a sense of style and who avoids the excessive use of symbolism which can make the subject unnecessarily difficult for the student.

P. HEYWOOD

DITKIN, V. A. AND PRUDNIKOV, A. P., *Operational Calculus in Two Variables and its Applications*, translated by D. M. G. WISHART (Pergamon Press, 1962), x+167 pp., 50s.

This book contains an account of the operational calculus in two variables based on the two-dimensional Laplace Transform,

$$F(p, q;\ a, b) = \int_0^a \int_0^b e^{-px-qy} f(x, y)dxdy.$$

The authors divide the text up into two distinct parts—the first part containing the