given probability w, with $0<w<1$, a Bernoulli sequence can be constructed; in fact, for the same w, a set of sequences having the power of the continuum. The "law of large numbers" and the "fundamental law of probability" leading to the "normal" probability function and its integral are then established. The Lexis dispersion theory concludes the text proper. Then follow: a one-page 4-place probability integral table; answers to the 18 exercises given in the text; a short list of important books and papers; an index for authors and subjects.

Kamke's book is by no means an elementary text. Though it presupposes no knowledge of conventional probability material, the reader should be well grounded in analysis. Kamke regards probability, not as a mysterious field closely allied to philosophy, but simply as a branch of function-theory directed toward infinite sequences of designated types. The book is compact; but it is extremely well written, and it is also surprisingly free from typographical imperfections. In the opinion of the reviewer, this is one of the most distinctive and important treatises on probability that have appeared in recent years.

E. L. DODD

DUBISLAV ON FOUNDATIONS

Die Philosophie der Mathematik in der Gegenwart. By Walter Dubislav. (Philosophische Forschungsberichte, Heft 13.) Berlin, Junker und Dünnhaupt Verlag, 1932. vi+88 pp. R.M. 3.80.

Die Definition. By Walter Dubislav. Third, revised and augmented edition. (Beihefte der *Erkenntnis*, Heft 1.) Leipzig, Felix Meiner, 1931. viii+160 pp. R.M. 14.00.

In the little book *Die Philosophie der Mathematik in der Gegenwart,* Dubislav gives an incisive discussion of certain problems of the foundations of mathematics. The problems, "What is mathematics?" and "What can it claim to prove?" are subjects of vigorous controversy; our author gives the word to all contenders, and then has his own wise comments on the views of each.

After a presentation of elements of symbolic logic—a tool essential to further progress—he devotes a section to the "metamathematical" group of problems. The very fact that the word is used indicates Dubislav's place in the camp of Hilbert. As Ramsey puts it,* metamathematics consists of real, meaningful assertions about mathematics, which is itself meaningless; and, precisely, the main problems—those which this book deals with—are those of consistency, of the possibility of decision (general validity and fulfillability), and of completeness. The treatment in a work of this size must, of course, be fragmentary, and Dubislav chooses to emphasize the latest results obtained by the Hilbertians—for instance, Gödel's proof that all logico-mathematical calculi which comprise arithmetic contain indeterminable statements, one of which asserts the self-consistency of the system,† and Dubislav's own contribution to the problem of decision.

* *The Foundations of Mathematics,* p. 68.

† Kurt Gödel, *Über formal unentscheidbare Sätze der Principia Mathematica und verwandter Systeme,* Monatshefte für Mathematik und Physik, vol. 38 (1931), p. 173.