

mentioned only in a brief introduction of nine pages, where the solution of certain problems in oscillation is reduced to expansions in terms of normal functions (Eigenfunktionen) belonging to integral equations. The entire text is then taken up with the development of the theory of the solution of linear integral equations following the method of successive approximations. This method may, however, without too much strain on the sense of the terms, be called the method of development in series of oscillating functions, and possibly this idea may have suggested the title.

The treatment is divided into three sections, presenting respectively the theory of linear integral equations with continuous, symmetric kernel, with discontinuous symmetric kernel, and Fredholm's solution of linear integral equations with any continuous kernel. In an appendix some generalizations are given for kernels with discontinuities for many-dimensional problems, and for systems of linear integral equations. The book closes with a bibliography of memoirs by the author relating to the applications of the method of successive approximations. This method owes its development to C. Neumann, Poincaré, Picard, and Korn.*

In a sense the book is an introduction to the theory of developments in series of normal functions particularly when the kernel is unsymmetric. These are, up to the present time, special investigations which each extend the field a little. In many cases of particular forms of the kernel, it is possible to develop theorems analogous to those on which is based the solution of the case of a symmetric kernel. How far this method may lead one in such investigations remains for the future to show.

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Etude sur l'Assurance complémentaire de l'Assurance sur la Vie.

By P. J. RICHARD. Paris, A. Hermann et Fils, 1911.
118 pages.

THE appearance recently in this BULLETIN of the note that "at the University of Göttingen . . . candidates in applied mathematics must henceforth be prepared to be examined in the mathematics of insurance," the approval by the Italian Chamber of Deputies of the bill providing for a state monopoly

* H. Bateman, Report on the history and present state of the theory of integral equations, page 21.