tory and discusses the applications of psychology to science and art. He indicates the line of demarcation between psychology and the human sciences as follows: The understanding of mental operations is valuable in the study of history, sociology, etc., but the interpretation of the subject-matter in each case belongs to the special science and not to psychology. In his closing chapters the author considers the applications of psychological data and methods to education, law, economics, medicine and culture. To this applied field he gives the name psychotechnics. These chapters offer a most interesting presentation of the recent progress in applied psychology, a line of development which seems likely to bring about a closer connection between psychology and the professions.

Whether or not the reader agrees with Professor Münsterberg's fundamental positions, he will find the present work most stimulating and suggestive.

HOWARD C. WARREN
PRINCETON UNIVERSITY

Design of Polyphase Generators and Motors. By HENRY M. HOBART. McGraw-Hill Book Company.

In "Design of Polyphase Generators and Motors," Mr. Hobart takes up the design of a simple three-phase generator and an induction motor from the standpoint of a designing engineer. This occupies the major portion of the book, but there are in addition two chapters devoted to a comparison of synchronous motors and induction motors and to the induction generator. Much useful information and many valuable tables compiled from empirical data obtained from existing machines are included.

The book follows the plan, outlined by the author in its preface, of taking up immediately without any preliminary discussion the design of a three-phase generator of definite rating, introducing the principles involved when required as the design progresses. In addition to the design of a three-phase generator, the design of a polyphase induction motor is also considered. The book should be valuable to the young designer who has a fair knowledge of the principles underlying operation and design of electrical machinery.

It is to be regretted that a portion of the book is not devoted to a simple analytical study of the effect on the operating characteristics of machines of modifying their dimensions and windings in order that the young designer might learn to analyze existing designs and to be able to judge the fitness of any particular design for a definite class of service.

Two appendices give a full bibliography of the papers dealing with polyphase generators and motors which have been printed in the *Proceedings* of the American Institute of Electrical Engineers and in the *Journal* of the British Institute of Electrical Engineers.

RALPH R. LAWRENCE

Synchronous Motors and Converters. By ANDRÉ BLONDEL. Translated from the French by C. O. MAILLOUX. McGraw Hill Book Co. 1913.

"Synchronous Motors and Converters" is a translation of the admirable little book by André Blondel entitled "Moteurs Synchrone à Currents Alternatifs." Several chapters have been added to the translation in order to increase the scope of the book and to bring it up to date. The translation is divided into three parts. Part I. is a translation of the original book with one chapter added by Professor C. A. Adams, of Harvard University. Part II. relates to Rotary Converters and is made of new material by Professor Blondel and a translation of papers presented by him at the Paris Congress in 1900. Professor Adams has also added a chapter to this section relating to the split-pole converter. Part III. contains reprints of papers presented by Professor Blondel at the St. Louis Electrical Congress in 1904, relating to his "two reaction" method of treating the armature reaction of alternators.

The first part of the book takes up the general principles of synchronous motors and a study of their operation under different conditions, and is particularly valuable in giving the development of well-known Blondel bi-