

more and more into the deliberations of our organization as a national court of appeal in such issues. The association truly has a solemn duty to perform in keeping in touch with the changing social and educational conditions in our national life and in seeing to it that the interests of psychology are adjusted to them. In spite of the experimental showing made in our statistical studies above, somewhere answer must be found for the questions persistently raised by the fact that the laboratory of psychology has not held its men like the other types of laboratory developed by science.

All these and several other vital questions relating to the efficiency of the association must be passed over to give place for a final suggestion. I doubt whether any person outside the council ever reads the reports dutifully presented by the treasurer. At the close of ten years we are in possession of a fund of some sixteen hundred dollars. The current expenses of the organization being kept reduced to a nominal minimum, the fund receives at the present rate an annual accumulation of nearly four hundred dollars. Should this rate of increase continue, the fund will be almost doubled in four years. Herein the association finds itself happily invested with both an obligation and an opportunity. This fund should be so administered as to yield the most stimulating returns in influence upon the growth of our science, especially in America. This can be done, not by burying or dissipating it in minor projects, worthy perhaps in their way and for the time being, but only by aiming high. The best effort the association can make seems to me to lie in the direction of establishing a *Prize Gold Medal in psychology*—a suggestion for which I take pleasure in thanking our president. The interest in-

come of our fund four years hence would be sufficient to warrant the awarding of the medal every three years, or four at most. This medal should be awarded by the association only for the best piece of work done in psychology, either in research or in some other specific mode of advancing its multiple interests. The association might control the direction of the immediately future psychological thinking by setting a prize problem, or it might stimulate general efficiency on the part of psychologists by selecting the best work in unspecified lines for the high honor going with the medal distinction. The field of competition might be restricted to American psychologists, or left open to the world. This prize gold medal might even be designated by the honored name of some past or present American psychologist. But my suggestion does not include a draft of rules regulating the award of the medal. It remains for me only to express my deep conviction that more enthusiasm and inspiration would be infused into American psychology through such a foundation, which is perfectly possible, than through any other detailed project that could be suggested at the present time. Its great virtue resides in the fact that it would keep each worker looking forward and upward, and that through it the association would do a thing of great and lasting moment.

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SCIENTIFIC BOOKS.

Standard Polyphase Apparatus and Systems.

By MAURICE A. OUDIN. Third edition, revised. New York, D. Van Nostrand Company. Crown 8vo. Pp. 289. \$3.00.

Students of electrical engineering have welcomed this up-to-date revision of Oudin's book on polyphase machinery, covering, as it

does in a very satisfactory manner, the chief features of the most recent developments in electrical engineering.

Chapter I. is devoted to definitions of terms and Chapters XII., XIII. and XIV. are devoted to the more or less theoretical questions of choice of frequency, weights of copper for various systems and calculation of transmission lines. The remaining chapters II. to XI. are devoted to the details of structure and operation of alternating current machinery of the polyphase type; and in an appendix is given the full report of the committee on standardization (of electrical machinery) of the American Institute of Electrical Engineers.

The author gives expression in his preface to a statement which has been current among electrical engineers for some time, namely that the most progressive engineering work of the day is that of switchboard design. The truth of this statement may be realized if we remember that the switchboard in a station includes all the controlling, regulating and safety devices, and that with the coming of our enormously powerful high-voltage generators the switchboard designer faces some of the most perplexing problems that have ever confronted electrical engineers.

W. S. FRANKLIN.

Arithmetic of Electrical Measurements. By W. R. P. HOBBS. Ninth edition, revised by RICHARD WORMELL. London, Thomas Murby. 1902. Crown 8vo. Pp. 112. 50 cents.

This is an excellent collection of simple problems illustrating the principles of current electricity. The problems are arranged in thirteen chapters and at the beginning of each chapter is given a series of explanatory paragraphs. An undue proportion of the problems are devoted to battery calculations such as grow out of series and parallel connections, while many important phases of modern electrical engineering are wholly untouched.

W. S. FRANKLIN.

SCIENTIFIC JOURNALS AND ARTICLES.

The American Naturalist for June contains the first instalment of an article on 'The

Colors of Northern Gamopetalous Flowers,' John H. Lowell; this is devoted mainly to a presentation of the character and colors of the flowers of the various orders of the group, though at the close we have a hint that bees have been largely instrumental in bringing about the survival of certain colored flowers. J. H. Powers discusses 'The Causes of Acceleration and Retardation in the Metamorphosis of *Amblystoma tigrinum*,' bringing forward a number of facts to show that the chief factor in change is a reduction in the food supply and not an insufficient supply of water for respiration by gills. Bradley Moore Davis considers at some length 'The Origin of the Sporophyte' and the balance of the number is devoted to notes and reviews.

The Popular Science Monthly for August opens with an article by Sir Oliver Lodge, on 'Modern Views on Matter,' the Romanes Lecture at Oxford; David Starr Jordan considers 'The Training of a Physician' and W. LeConte Stevens 'American Titles and Distinctions,' implying that here they are all too cheap. C. C. Nutting describes, with the aid of illustrations, 'The Bird Rookeries on the Island of Laysan'; Albert Schneider discusses 'Bacteria in Modern Agriculture,' showing what it is hoped to do by the aid of bacteria rather than what has actually been accomplished; and J. E. G. de Montmorency gives the second part of 'The Story of English Education,' bringing the subject down to date. Frederick A. Bushee has an article on 'The Declining Birth Rate and its Cause,' and J. A. Fleming the third instalment of a paper on 'Hertzian Wave Wireless Telegraphy.' There are many matters of interest discussed in 'The Progress of Science.'

The Museums Journal of Great Britain for June brings to a close the second volume of this valuable periodical, which comprises some 375 pages, besides the full index, and supplementary pages devoted to a directory of the Museums of Great Britain. Mr. Hoyle is to be complimented on the regularity with which the *Journal* has appeared and congratulated on the fact that he has made it a financial success.