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THE AMERICAN FEDERAL STATE. A Text-book in Civics for High Schools and Academies. By Roscoe Lewis Ashley, A.M. New York: The Macmillan Company, London: Macmillan & Co., Ltd. 1902. 16mo. Pp. i-xlv, 599.

Mr. Ashley has produced a book of the kind that one loves to handle and to read. It is scholarly in its treatment, yet simple in its explanations. It is a textbook intended not only to describe the organization and work of the different American governments, but to emphasize the relation of citizens to the government and to one another. For that reason, Mr. Ashley informs us in his preface, he has approached the subject from the standpoint of the State; that is, of the whole body of citizens considered as an organized unit, rather than from the point of view of government or of the individual citizen. How well he has succeeded even a cursory examination of his book will show.

HANDBOOK ON ENGINEERING. By Henry C. Tulley. Second Edition, Revised and Enlarged. St. Louis: Henry C. Tulley & Co. 1902. 16mo. Pp. 827. Price \$3.50.

This is the second edition of a book which has been found of considerable service to the practical engineer. The author's claim that before the publication of the volume, it was difficult to find a plain and practical treatise on the steam-boller, steam-pump, steam-engine, and dynamo, and how to care for them, is only too well founded. His own work seems to fill this want in a particularly happy manner. He has given particular attention to the latest improvements in all classes of steam engineering and their proportioning according to the best modern practice.

BAKING POWDERS. A Treatise on the Character, Methods for the Determination of the Values, etc. With Special Reference to Recent Improvements in Phosphate Powders. By Charles A. Catlin, B.S., Ph.B., F.A.A.S. Providence, R. I.: Rumford Chemical Works. 1899. Pp. 44.

Mr. Catlin has prepared an interesting monograph on baking powders which will commend itself both to the chemist and to the baker for the thoroughness of its treatment and the trustworthiness of its information.

PRACTICAL SANITARY ENGINEERING. By Francis Wood. Philadelphia: J. B. Lippincott Company. London: Charles Griffin & Co. 1902. 16mo. Pp. i to vii, 304.

Mr. Wood's work deals with the science of sanitary engineering in an elementary form. As the author states in his introductory chapter, the material formed the basis of a series of lectures given before a few private engineering friends, and is now offered more especially to engineering students. It cannot be denied that the work is both instructive and trustworthy. Its illustrations might, however, be improved here and there.

ELECTRICAL ENGINEERING TESTING. A Practical Work for Second and Third Year Students, Engineers and Others. By G. D. Aspinall Parr, M.Inst. E.E., A.M.I. Mech.E. 218 Diagrams of Connections and Illustrations of Appliances, Constants, Logarithms, Squares, etc. Philadelphia: J. B. Lippincott Company. London: Chapman & Hall, Ltd. 1902. 8vo. Pp. 474. Price \$3.50 net.

Electrical periodicals from time to time have published articles on the testing of electrical engineering apparatus. So far as we know, the present book is the first earnest effort to treat the more advanced and practical portions of the subject in a systematic manner and to collect scattered information not readily accessible. The book embodies most of the experimental work that is usually done at colleges, and includes many tests of heavy electrical machinery, together with a course on jointing electric light cables. The author's hope that his book may be suitable to guide the student in electrical laboratory practice in the second and third years of a complete course of instruction in electrical engineering deserves to be fulfilled.

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With the publication of the fourth instalment, the Cyclopaedia of Horticulture is now complete. In the retrospect which forms the preface of this last volume, the author has shown convincingly how laborious has been his task and how carefully he has endeavored to perform it. So far as we are aware, the book

(Continued on page 319)

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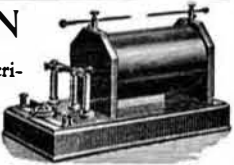
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AMERICAN NEWSPAPER ANNUAL, 1902.
Philadelphia: N. W. Ayer & Son.
1902. Crown 8vo. Pp. 1601.

Perhaps the most exhaustive and the most trustworthy business directory of newspapers published in the United States is that issued by the well-known advertising agents, N. W. Ayer & Son, of Philadelphia. The volume before us follows the general plan which has been adopted in past annuals—a plan which experience has shown to be in every way the most adequate. The 1902 annual contains a carefully prepared list of the newspapers and periodicals published in the United States, Territories, Dominion of Canada, Cuba and the West Indian Islands, and gives valuable information regarding these periodicals, such as circulation, issue, date of establishment, names of editors and publishers, and addresses, together with the population of the counties and places in which the papers are published. Furthermore, the book contains a description of every place in the United States and Canada in which a newspaper is published, including railroads, telegraph stations and banking facilities as well as maps of the United States and its possessions, Canadian provinces and the West Indian Islands. A list of the newspapers of the United States and Canada is arranged in counties and a description is given of each State, Territory, province and county, as well as the location, use, character of surface and soil. Chief products and manufactures are also mentioned. The work, containing as it does information of the most varied and useful character, constitutes a valuable guide for the judicious placing of advertisements.

FUNDAMENTAL PRINCIPLES OF ASCERTAINING COST OF MANUFACTURING APPLIED TO MANUFACTURING PRINTING. APPLICABLE TO ALL OTHER KINDS OF MANUFACTURING. By J. Cliff Dando. Philadelphia: Dando Printing and Publishing Company. 1901. Quarto. Pp. 88. Price \$10.

The cost of manufacturing is an unknown quantity, depending upon a variable amount of manufacturing done each year by any factory. It never has, it never can and it never will be absolutely fixed, but with the aid of this splendid book there should be no difficulty in ascertaining, as far as possible, the knowable; and if Dando's system is carried out, we will see fewer printing offices for sale. Printing is a business which is figured so closely that it affords admirable examples for comparison with other lines of business, and its usefulness is by no means impaired by various items and computations being made on the basis of a printing business.

POWER TRANSMISSION. By E. W. Kerr, M. E. New York: John Wiley & Sons. 1902. 8vo. Pp. 356. Price \$2.

The author has taken an old subject, which has been worn threadbare, and has acquitted himself in an excellent manner. The contents are largely the subject matter of lectures delivered by the author to students of the elementary principles of engineering. The examples for practice are excellent. The book is well illustrated.

THE TRAINING OF THE BODY FOR GAMES, ATHLETICS, GYMNASTICS, ETC. By F. A. Schmidt, M. D., and Eustace H. Miles, M. A. New York: E. P. Dutton & Co. 1901. 8vo. Pp. 520. Price \$2.50 net.

The volume contains hints that will be valuable for all those who are interested in sports and out-of-door games. The authors' special object is to point out the peculiarities of the different forms of exercises and their relation to a perfect, all round development. The authors take up the subject matter from new points of view, and the explanations are so lucid that they can be readily comprehended by the lay mind. The illustrations are particularly unique.

MARINE PAINTING IN WATER COLOR WITH TWENTY-FOUR EXAMPLES IN COLOR. By W. L. Wyllie, A. R. A. London and New York: Cassell & Co.

The examples are admirable and the explanations are most simple. The book is one that can be especially commended to all amateur artists.

THE MASTERY OF THE PACIFIC. By Archibald R. Colquhoun. New York: The Macmillan Company. 1902. 8vo. Pp. 440. Price \$4.

The writer is well known as a traveler in foreign lands, and a student of foreign affairs, but more especially of the questions which find their focus in the Far East. Among the changings and shiftings of human activity which have taken place in the world's history, none have been more striking than those which are rapidly transforming the great ocean zone of the Pacific. The book is admirably written and is profusely illustrated by unique photographs, and it is especially recommended to persons who wish to post themselves upon one of the vital questions of the day.

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