

MASTER MECHANICS' ASSOCIATION: GENERAL INDEX TO THE ANNUAL REPORTS. *Covering the Reports from the First to the Twenty-third, Inclusive—1868-90.* Prepared by Angus Sinclair, Secretary. (The Association, New York.)

The preparation of this Index was undertaken by Secretary Sinclair in accordance with a resolution passed by the Association last year. It is hardly necessary to say that it will be of great service to those members and others who preserve their reports and have occasion to refer to them. An editor especially appreciates the time and labor spent in searching for a report or paper through a series of volumes; and he also appreciates thoroughly the care with which Mr. Sinclair's work has been performed, and the time and trouble required for such a task.

TRADE CATALOGUES.

Central Station Electric Lighting Plants and Electric Railroads of the United States. The Thomson-Houston Electric Company, Boston.

This book consists of a series of outline maps of the United States, showing the cities where electric lighting plants are in operation, the marks on the map indicating what system is in use in each place. A second series, on a somewhat smaller scale, shows the cities which are provided with electric railroads, the system in use being also indicated on these maps. These maps are accompanied by some pages of tables, giving the number of central-station lighting plants of different systems, and also the number of electric railroads in operation.

The map is very convenient for use by those who are interested in electrical matters. The maps are interspersed with advertising pages, which are chiefly taken up by manufacturers of electrical apparatus, and of steam-engines and other auxiliary machinery.

Staunton, Virginia: its Past, Present, and Future. The Staunton Development Company.

This book is intended to make known to the world the advantages and prospects of the town of Staunton and the adjacent country. This is done by a well-written historical sketch and a general description. The best part of the book, however, is the illustration, which includes a number of views in and about the town and in the adjoining country. Most of these are from photographs, and they include some of the best work of the kind we have ever seen. They certainly give the reader an excellent idea of the place, and are a most attractive advertisement.

Illustrated Catalogue of the Decauville Portable Railroad. Petit-Bourg, France; La Société Decauville Aîné.

Van Vranken's Automatic Flush Tank for Flushing Sewers, Drains, etc. Schenectady, N. Y.; Benjamin Van Vranken.

BOOKS RECEIVED.

Reports of the Consuls of the United States to the State Department: No. 122, November, 1890. Washington; Government Printing Office.

European Emigration: Studies in Europe: by F. L. Dingley, Special Consular Report to the State Department. Washington; Government Printing Office.

Compound Locomotives: by Professor Arthur T. Woods, M.E. New York; R. M. Van Arsdale (price, \$2). This book is received too late to give it the comment which it deserves, in the present issue.

Annual Report of the Postmaster-General of the United States

for the Fiscal Year Ending June 30, 1890. Washington; Government Printing Office.

Cornell University, College of Agriculture: Bulletin of the Agricultural Experiment Station, No. XXV, December, 1890. Ithaca, N. Y.; published by the University.

Proposed Tennessee Highway Law. Nashville, Tenn.; the Nashville Commercial Club. This is a draft of a very excellent act prepared by a committee of the Nashville Commercial Club, and submitted to the Tennessee Legislature.

Eighteenth Annual Report of the Commissioner of Railroads, State of Michigan, for the Year 1890: John T. Rich, Commissioner. Lansing, Mich.; State Printers.

Facts and Figures about Norfolk, Va. Compiled and issued by the Chamber of Commerce.

Report of Committee on Roads and Draft of Proposed Road Law. Pittsburgh, Pa.; the Western Society of Engineers.

American Shipbuilding and Lake Transportation: by Joseph Oldham, C.E., Naval Architect. Cleveland, O. This is a comparison between the design, construction and general efficiency of the freight steamers used on the great lakes and foreign cargo steamers.

Eighth Annual Report of the Board of Railroad Commissioners of Kansas, for the year ending December 1, 1890: James Humphrey, George T. Anthony, Albert R. Greene, Commissioners. Topeka, Kan.; State Printers.

ABOUT BOOKS AND PERIODICALS.

IN the POPULAR SCIENCE MONTHLY for February, Mr. Durfee's articles on the Developments of the Iron Industry in America are continued by a paper on Iron Smelting by Modern Methods, which, like the previous articles, is very fully illustrated. Another illustrated article is on Progress in Agricultural Science; and Mr. Charles Morris has an interesting paper on the Storage of Cold. The Editor makes a strong appeal in favor of the International Copyright Bill.

The military article in OUTING for February gives a description of the Active Militia of Canada. The Racing Canoe and its development are discussed by Mr. Vaux, and the articles on Photography are continued.

The third of Sir Edward Arnold's articles on Japan appears in SCRIBNER'S MAGAZINE for February. These articles will be concluded in the March number of this Magazine, and in that number also will be an account of the National Geographic Society's Explorations of Mount St. Elias, made last summer. The Practical Means of Ornamenting Ponds and Lakes will be discussed by Samuel Parsons, Jr., Superintendent of the New York Parks.

The STEVENS INDICATOR for January includes articles on Cable Traction on Elevated Railroads, by Charles W. Thomas; Marine Governors, by J. Hansen; Measurement of High Temperature, by W. A. Ebsen and E. W. Frazar, with several other articles of interest, including the Use of Electricity in operating cranes and machine tools, and a note on the performance of the double-screw ferry-boat *Bergen*.

In the ARENA for February, M. Camille Flammarion, one of the most eminent of European astronomers, writes on New Discoveries on Mars, the paper being accompanied by a full-page map of that star, and smaller maps showing recent apparent changes on its surface. Mr. C. Wood Davis discusses the Farmer, the Investor and the Railroad, studying the railroad problem from a point of view which is rather that of the farmer than of the railroad owner or manager, but presenting some facts and arguments which deserve consideration.