

Completing the Index is a Table of Contents of Proceedings, which gives the contents of the final eleven individual volumes. In this volume the titles of papers have been distinguished by quotation marks, and committee reports and specifications have been indexed under subjects appropriate to their titles. Prefixed to the Index is a list of key-words under which these subjects have been indexed; and the Index itself is classified under subjects and authors. The publication is issued by the society at the University of Pennsylvania, Philadelphia, Pa.

**The Cobalt-Nickel Arsenides and Silver Deposits of Temiskaming, Report of the Bureau of Mines (Fourth Edition).**—279 pages, 7 x 10 inches, fully illustrated and well supplied with inset maps. The book is divided into three chapters and four appendices. Chapter I. contains 132 pages, and deals with the district of Cobalt proper, the character and origin of its veins, ores and minerals. Chapter II. considers for 63 pages the Outlying Cobalt Areas, and a like discussion of their mineral products. Chapter III. gives in 30 pages an analysis of Lake Superior silver deposits, other Canadian Nickel-Cobalt ores, and foreign Cobalt deposits. The four appendices discuss respectively the Paleozoic Rocks of Lake Temiskaming, a profile from Toronto to Hudson Bay slope, the early history of the Cobalt industry in Saxony, and mining and concentrating methods at Cobalt. In this edition little is added to the economic geological description given in former editions; but some features have been treated more fully, such as underground work in the mines, which has furnished many details concerning the structural relations and the character of the veins.

**Twentieth Annual Report of the Massachusetts Highway Commission, 1912.**—333 pages, 6 x 9 inches, with map appended, containing Parts I. and II; the former dealing with State highways and motor vehicles; the latter, with the supervision of telephone and telegraph companies. Part I. comprises in 200 pages the report of the Massachusetts Highway Commission, consisting of Wm. D. Shier, chairman, F. D. Kemp, and J. W. Synan; the report of Chief Engineer A. W. Dean, as Appendix A; and twelve additional appendices. A thorough discussion of the department's work upon State roads and in the supervision of automobiles marks the first portion of Part I. as most valuable, though the traffic census is also discussed at length, and constitutes a special phase of the book, which is elaborated in Appendix L by 28 pages of traffic records. Part II. consists of the annual report of the Massachusetts Highway Commission concerning companies engaged in the transmission of intelligence by electricity, which is supplemented by three appendices. There are three half-tone illustrations, two showing improved roads, and the third is of a 42-foot span reinforced concrete bridge. The appendaged map shows in tones of red the roads petitioned for, roads laid out, and town roads improved in Massachusetts. Wright & Potter Printing Company, Boston, Mass.

### CATALOGUES RECEIVED.

**Fractional Horse-Power Motors and Applications.**—Illustrated leaflet, showing the various forms of fractional horse-power motors offered by the Canadian General Electric Company, Toronto.

**Universal Bulletin.**—Illustrated monthly, showing use of Portland cement in concrete bridges and buildings of various kinds. Published by the Universal Portland Cement Company, of Chicago, Ill.

**A Thousand Uses for Gas.**—The September number of an illustrated periodical issued to manufacturers by the Industrial Division of the United Gas Improvement Company, Philadelphia, Pa.

**Efficient Roundhouse Lighting** is the subject of a small pamphlet published by the Canadian General Electric Company, Limited, Toronto, and dealing with a type of reflector for use in roundhouses.

**Incineration.**—A neat 22-page pamphlet descriptive of some of the plants of the Decarie incinerator for the disposal of garbage and refuse. Published by the Decarie Incinerator Company, Minneapolis, Minn.

**Steam-Driven Compressors.**—A 12-page catalogue is published by the Canadian Pneumatic Tool Company, descriptive of Class "M" Chicago Pneumatic Corliss type compressor. It is Bulletin No. 24-T.

**Country Sewage Purification.**—Tuke & Bell, Limited, Sewage Specialists, London, E.C., describe their semi-septic system of sewage purification which they install for cottages, country houses, institutions, etc.

**Condulets.**—New types for railway requirements are listed and illustrated in Bulletin 101 of the Crouse-Hinds Company of Canada, Limited, of which Canadian General Electric Company are the selling agents.

**Annual Report of the Quebec Railway, Light, Heat and Power Company, Limited.**—An illustrated pamphlet, including maps, giving the report for the fiscal year ending June 30th, 1913, adopted by the company at its third annual meeting.

**Mesta Gas Engines.**—The Mesta Machine Company, Pittsburg, Pa., have issued a bulletin descriptive of their gas engines, which they build for any gas fuel—producer, blast furnace, coke oven, or natural, and in sizes from 350 B.H.P. upwards.

**Catalogue "C" of the DeLaval Steam Turbine Company** describes class "C" velocity-stage type. It is a catalogue of 108 pages, well illustrated and full of interesting data. The Turbine Equipment Company, Limited, Toronto, look after the sale in Canada.

**Smut Diseases of Cultivated Plants.**—Illustrated bulletin, giving a description of the different varieties, their history and treatment. Issued by H. T. Güsson, Dominion Botanist, and published by direction of Hon. Martin Burrell, Minister of Agriculture, Ottawa.

**Illumination of Construction Work.**—This is an illustrated description of the G. E. Type "W" flame arc lamp, and of its suitability for use by the modern contractor on his night-work jobs. The Canadian General Electric Company, Toronto, are selling agents.

**Hand-Drills and Portable Compressors.**—Illustrated pamphlet dealing with the Chicago Valveless Hand-Drill and the "Chicago Pneumatic" Portable Gasoline Engine-Driven Air-Compressor. Published by Chicago Pneumatic Tool Company, of Chicago and New York.

**Wizard Rock Drills.**—This product of the McKiernan-Terry Drill Company, New York, is described in a 12-page illustrated booklet. Prices and specifications of the various types and of their duplicate parts are given. Canadian Allis-Chalmers, Limited, Toronto, are agents.

**Coal-Mine Fatalities in the United States.**—A catalogue of tables, giving statistics of July coal-mine fatalities, and revised figures for preceding months. Compiled by Albert H. Fay, and published under the direction of the Bureau of Mines, United States Government, Washington, D.C.

**Multi-Stage Type DeLaval Steam Turbines.**—Described in Catalogue "D." The book is a 120-page description of the field, design, construction, and adaptation of the multi-stage DeLaval Turbine. A section of the catalogue is devoted to the company's double-helical speed-reduction gear. The catalogue is educative in the information which it contains, and shows, among other important details, the use of the DeLaval diagram and steam scale for determining the consumption of an engine or turbine under given steam conditions.