

Telegraph, Telephone and Cable Matters.

The Western Union Telegraph Co. has decided to build an enlarged and permanent cable station at Bay Roberts, Nfld., for the accommodation of its trans-Atlantic cables. It will also build a number of modern dwellings for its staff there.

A New Westminster press report states that the Dominion Government telegraph line to Queen Charlotte Islands, an appropriation for which was included in the estimates at the last session of the Dominion Parliament, will be taken in hand at once and rushed through at the earliest possible moment.

A Montreal press dispatch states that the C.P.R. is pushing the completion of the largest contract for the erection of telegraph wires that has been carried out in the Dominion in a short time. It is stated that 4,775 miles of new wires will be strung during the next five months, and the work is now proceeding, although all the contracts have not been let.

The British Government is arranging the details of an agreement for the erection of a series of wireless telegraph stations throughout the Empire, a prior agreement with the Marconi Wireless Telegraph Co. having been cancelled. It is the intention to inspect other systems before coming to a definite decision on the matter, but it is anticipated that a new agreement will be made with the Marconi Company for the carrying out of the work.

It is announced that the Universal Radio Syndicate, Ltd., London, Eng., has acquired about 57 acres of land at Newcastle, N.B., for the erection of a wireless telegraph station, in connection with the system which it intends operating across the Atlantic Ocean, by agreement with the Dominion Government, as mentioned in our last issue. It is also stated that the contract for the building and installation has been let to a Montreal firm, and that the steel tower, 500 ft. high, is being built in England.

It is reported that the Dominion Government will probably erect a wireless telegraph station on Mount Royal, Montreal, to consist of two wooden masts, each 180 ft. high, placed 450 ft. apart, and an operating station house 40 by 20 ft. Application has been made to the city to reserve land, 800 by 200 ft., for the purpose. The station will have sufficient power to enable communication to be made with Quebec, on the east, and Kingston, on the west, and will form one of a series of similar stations connecting Port Arthur, at the head of the lakes, with the Belle Isle Strait.

Book Reviews.

Any of the books reviewed may be obtained through Canadian Railway and Marine World at the published price.

THE PROPERTIES OF SATURATED and Superheated Ammonia Vapour.—By G. A. Goodenough and W. E. Mosher. 94 pages, 6x9 ins. 12 illustrations. University of Illinois Engineering Experiment Station, Urbana, Ill. 50 cts.

This latest bulletin, no. 66, from the experiment station is a highly technical book, full of elaborate thermodynamic deductions. Numerous tables of properties are included in the manner usual in tables of steam properties. The method of deducing the results obtained is outlined and explained.

STEAM CONSUMPTION OF LOCOMOTIVE Engines from the Indicator Diagrams.—By J. P. Clayton. 77 pages, 6x9 ins., 19 illustrations and 16 tables. University of Illinois Engineering Experiment Station, Urbana, Ill. 40 cts.

This is bulletin no. 65 of the experiment station. In it is developed and illustrated the application of the logarithmic diagram to locomotive engines, which shows that the steam consumption of locomotives can be determined from the indicator diagrams alone to within 4 per cent. of the actual consumption as measured on the test plant. The developed information is based on information and data derived from tests made both by the Pennsylvania Rd. and Purdue University, the data from these tests being included in an appendix to the book.

THE MANUAL OF STATISTICS, Stock Exchange Hand Book, 1913. 35th annual issue, 1,104 pages, 5½x7½ ins. Manual of Statistics Co., New York. \$5.

This work presents a complete digest of all necessary and available information for investors and all interested in the financial and other markets of the northern half of the continent. There have been many changes in the organization of various railways during the past year, while a considerable number of new industrial companies have been brought into public notice during the same period. The manual presents in concise form the organization, finances and position of all the leading steam and electric railways and industrial concerns in Canada and the United States, and gives a review of the market price of the various securities on representative exchanges. The information regarding Canadian steam and electric railways and industrial companies appears to be up to date and reliable.

APPLIED METHODS OF SCIENTIFIC Management.—By F. A. Parkhurst. 325 pages, 6x9 ins., 57 illustrations. J. Wiley & Sons, New York. \$2.

A great deal has been said in recent years about scientific management, particularly in its application to railways. A large portion of this has been purely theory and, in consequence, its enemies have discovered weak spots which they have used as capital in their arguments. In this work by Mr. Parkhurst, the whole exposition of scientific management is based on actual observations in the plant of the Ferracute Machine Co., Bridgeton, N.J., which is a remarkable example of what this new system will do for a plant. The production of the plant has been considerably increased, and the wages have also been increased, but the unit cost of production, through the use of the system, has been decreased, making a considerably greater net profit. Throughout the work, while scientific management in all its factory phases is outlined, the basis of the book is the system as applied to this plant. The book first deals with the organization of the company, outlining how a preliminary investigation of any plant should be made, with the form of organization and its record. Chap. 2 covers the functions of the sales department and the counting room, engineering room and draughting room. Chap. 3, the planning department and its function, with the relation of the superintendent and different shop officials to it. Chap. 4 is on the routing of the work through the shop, dealing with the duties of all those who are responsible for its path. Chap.

5 covers the organization of the stores department. Chap. 6 deals with the advisability and methods of standardizing tools and methods. Chap. 7 deals in detail with time studies, while chap. 8 gives the course of a typical order through the several channels and officials in its course through the shop. The foregoing chapters all appeared as part of a serial article in *Industrial Engineering*, but owing to the nature of their reception it was decided to reproduce them in book form. In this book, the original articles have been added to by the addition of an appendix, going into more detail and covering parts that were untouched in the original articles. The book is one that is well worth the study of all shop men and those who are responsible for production work.

Transportation Conventions in 1913.

- Aug.—Travelling Engineers' Association, Chicago, Ill.
- Aug. 12-15.—Railway Gardening Association, Nashville, Tenn.
- Aug. 18.—International Railroad Master Blacksmiths' Association, Richmond, Va.
- Sept. 8-12.—Roadmasters' and Maintenance of Way Association, Chicago, Ill.
- Sept. 9-12.—Master Car and Locomotive Painters' Association of U.S. and Canada, Ottawa, Ont.
- Sept. 25.—Eastern Association of Car Service Officers, New York.
- Oct. 8.—Association of Water Line Accounting Officers, Philadelphia, Pa.
- Oct. 14.—Railway Signal Association, Nashville, Tenn.
- Oct. 14, 15.—American Association of General Passenger and Ticket Agents, Philadelphia, Pa.
- Oct. 14-17.—Railway Signal Association, Nashville, Tenn.
- Oct. 15-17.—American Association of Railway Surgeons, Chicago, Ill.
- Oct. 21-23.—American Railway Bridge and Building Association, Montreal.
- Oct. 23-25.—American Association of Dining Car Superintendents, Buffalo, N.Y.
- Nov. 19.—American Railway Association, Chicago, Ill.

Transportation Associations, Clubs, Etc.

The names of persons given below are those of the secretaries.

- Canadian Car Service Bureau, J. E. Duval, 401 St. Nicholas Building, Montreal.
- Canadian Electric Railway Association, Acton Burrows, 70 Bond Street, Toronto.
- Canadian Freight Association (Eastern Lines), G. C. Ransom, Canadian Express Building, Montreal.
- Canadian Freight Association (Western Lines), W. E. Campbell, 502 Canada Building, Winnipeg.
- Canadian Railway Club, J. Powell, St. Lambert, Que. Meetings at Montreal, 2nd Tuesday each month, 8.30 p.m., except June, July and August.
- Canadian Society of Civil Engineers, C. H. McLeod, 176 Mansfield St. West, Montreal.
- Canadian Ticket Agents' Association, E. de la Hooke, London, Ont.
- Central Railway and Engineering Club of Canada, C. L. Worth, 409 Union Station, Toronto. Meetings at Toronto 3rd Tuesday each month, except June, July and August.
- Dominion Marine Association, Counsel, F. King, Kingston, Ont.
- Eastern Canadian Passenger Association, G. H. Webster, 54 Beaver Hall Hill, Montreal.
- Engineers' Club of Montreal, R. W. H. Smith, 9 Beaver Hall Square, Montreal.
- Engineers' Club of Toronto, R. B. Wolsey, 94 King St. West, Toronto.
- Great Lakes and St. Lawrence River Rate Committee, Jas. Morrison, Montreal.
- International Water Lines Passenger Association, M. R. Nelson, New York.
- Niagara Frontier Summer Rate Committee, Jas. Morrison, Montreal.
- Nova Scotia Society of Engineers, A. R. McCleave, Halifax, N.S.
- Quebec Transportation Club, J. S. Blanchet, Quebec.
- Ship Masters' Association of Canada, H. O. Jackson, 376 Huron St., Toronto.
- Shipping Federation of Canada, T. Robb, 526 Board of Trade, Montreal.
- Western Canada Railway Club, W. H. Rosevear, 25½ Princess St., Winnipeg. Meetings at Winnipeg 2nd Monday each month, except June, July and August.