

Book Reviews.

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

RAILROAD CONSTRUCTION.—By C. L. Crandall and F. A. Barnes. 321 pages, 6x9 ins., 81 illustrations. McGraw-Hill Book Co., New York, \$3.

Many books have from time to time been written on the subject of railway construction, but the majority seem to touch on the theoretical considerations involved rather than the practical carrying forward of the project. This work differs from the majority to a marked degree in this respect, covering in a comprehensive manner not only the theoretical outline of the planning of the work, but also the actual methods of doing the work, illustrating and describing the latest types of machines and equipment required to economically push forward a railway line. That the methods of railway building have been altered very considerably within the last few years is emphasized in dealing with the machinery

used. The rapid progress in the methods of conducting the work are shown by illustration and description. The chapters are as follows:—Introductory, Earthwork, Rock Excavation, Tunneling, Masonry, Foundations, Culvert and Bridge Masonry, Trestles and Bridges, Track Material and Roadbed, and Estimates and Records. From this it will be seen that the subject is covered from every view point. A more detailed examination of each of the chapters shows that each of the several phases of the subject is considered quite fully. The book is based to a considerable degree on the standardization work of the committees of the American Railway Engineering Association.

THE HUMAN FACTOR IN WORKS MANAGEMENT.—By James Hartness. 159 pages, 5x9½ ins. McGraw-Hill Book Co., New York. \$1.50.

The human factor in works management is probably the least controllable of all the factors entering into the production of a given product. Much thought has been given to the solution of the sociological problem involved in knowing just how to handle the workmen to the best advantage, not only to themselves, but to the employer. As a result of the many studies of the subject, there is a great diversity of opinion, with the result that in the majority of cases the employer still resorts to the old "hit and miss" method, or depends on that elusive faculty some-

times termed the sixth sense. The treatment of the subject by Mr. Hartness is decidedly unique, and may be summed up as a brief for super specialization of all, from the highest executive to the humblest workmen, numerous arguments being advanced in refutation of the statement that continued repetition of any one operation not only is injurious to the physical welfare of the workman, but also that his mental faculties are thereby impaired. The scope of the book is shown by the chapters, as follows:—The Value of Habit, The Inertia of Habit, The Different Views of Industrial Organization, Increasing the Assimilating Capacity, Some Non Technical Phases of Machine Design, and Machine Building for Profit. Mr. Hartness has had such a complete experience in the subject he is treating, in his development of the firm of which he is President, that his views are assured a careful consideration by all readers.

Transportation Conventions in 1913.

- June.—American Society for Testing Materials, Philadelphia, Pa.
 June.—Association of Railway Electrical Engineers, Atlantic City, N.J.
 June 11-13.—American Railway Master Mechanics' Association, Atlantic City, N.J.
 June 16-18.—Master Car Builders' Association, Atlantic City, N.J.
 June 17.—Train Despatchers' Association of America, Los Angeles, Cal.
 June 17-19.—International Association of Railway Special Agents and Police, Salt Lake City, Utah.
 June 17-20.—American Association of Freight Agents, Buffalo, N.Y.
 June 18.—Freight Claim Association, Bluff Point, N.Y.
 June 24-25.—Association of Transportation and Car Accounting Officers, Charlevoix, Mich.
 July 15-18.—International Railway General Foremen's Association, Chicago, Ill.
 July 22-25.—International Railway General Foremen's Association, Chicago, Ill.
 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.
 Oct. 8.—Association of Water Line Accounting Officers, Philadelphia, Pa.
 Oct. 14.—Railway Signal Association, Nashville, Tenn.
 Oct. 21-23.—American Railway Bridge and Building Association, Montreal.

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