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THE WHARF CRANES OF THE PENNSYLVANIA RAILROAD  
COMPANY AT GREENVILLE, N.J.

BY JOHN LYLE HARRINGTON, M. Can. Soc. C. E.

The great industrial development of the last century was accompanied and largely made possible by co-ordinate growth in the facilities for both foreign and domestic transportation. Within that period the railway became the most important single factor in the material life of all progressive nations, and the steamship relegated to a secondary place the sailing craft which had been for all the preceding centuries substantially the only means of carrying on foreign or domestic commerce.

The traffic carried by the railways and the merchant-marine of the world has assumed almost incomprehensible proportions, but the development of the means for transferring goods from one great carrier to the other has not kept pace with the demand. The mast and gaff, operated by the ship's winches, and the hand truck still remain the chief means for handling package freight, though the greater steamship lines have very recently equipped their wharves with electric hoists to operate the mast and gaff.

The handling of iron ores, however, has received the attention of many of our ablest engineers during the last third of a century, and the traffic in iron ore now existent upon the great lakes is only made possible by the improved facilities for removing the ore from the vessels and delivering it to railway cars, cheaply and with dispatch.

The handling of coal, especially in the seaboard cities, has also