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THE NEW BRIDGE OVER THE EAST RIVER AT BLACKWELL'S ISLAND, NEW YORK.

The erection of a bridge across the East River at Blackwell's Island is an old project, which at last is being carried out. The city of Brooklyn, one of the largest municipalities in the United States, and Long Island, which includes some of the most thickly settled suburbs of the city of New York, depend upon one bridge and upon ferryboats for communication with the metropolis. The estuary called the East River, which separates the cities, is very variable in width, and at Blackwell's Island it is divided into two separate channels of approximately even width, so that there is good ground for the erection of intermediate piers, which will be without objection, as they will not obstruct the channel. We illustrate in this issue the new bridge, work on which is now in active progress.

The bridge is of the cantilever type. It comprises steel trusses carried on Connecticut granite piers. There are to be four railroad tracks, a carriage-way, and a foot-path. Starting with its approaches about a mile from the heart of Long Island City, it is to run across the southern end of Blackwell's Island and lead to a terminal station at Third Avenue and 64th Street, in this city. The Secretary of War at first required a clear height of 150 feet above the river level, but consented to a reduction of height to 135 feet, which is the same as that of the present suspension bridge across the river three miles below.

There are four main piers, each of which is to be 86 by 45 feet in cross-sectional area. The piers are arched. Back of the main piers come the anchor piers, one for each end of the bridge, to which the trusses are tied down to withstand the strain brought by the overhanging cantilevers and connecting trusses. In the six piers, 810,000 cubic feet of stone will be used, the anchor piers alone representing 216,000 cubic feet.

There are three main spans. The central one, which crosses Blackwell's Island, is to be 615 feet, and each river span will be 846 feet long. The trusses are of the American type or pin connected. Their size may be conjectured from the statement that some of the pins will be 18 inches in diameter and that the main girder will be 125 feet deep. Fifty-three million pounds of steel will enter into the construction of the bridge proper and 25,000,000 pounds into that of the viaducts. The structure will be, it is said, the heaviest bridge per lineal foot ever constructed.

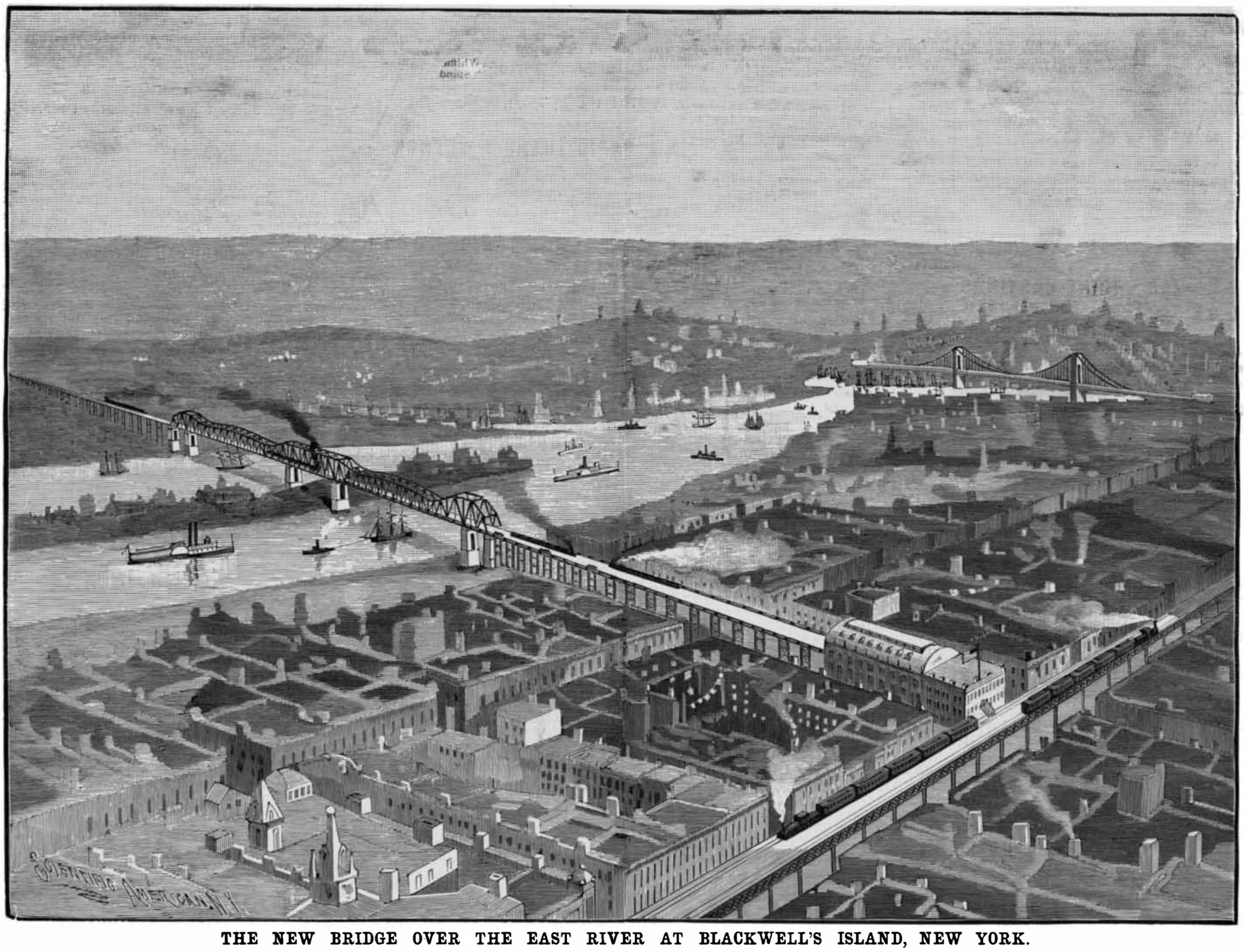
The truss work is under contract by the Pencoyd Bridge and Construction Company, of Philadelphia, Pa.

The terminal station in New York is to cover a full block between Second and Third Avenues in the neighborhood of Sixty-fourth Street. The main floor will contain 12 lines of track. The level of this floor will be 25 feet above that of the elevated railroad. Connections will be made with both Second and Third Avenue elevated roads.

The ground floor will be a market. Long Island is one of the kitchen gardens of New York, and the market will for that reason be under peculiarly good auspices. The basement will be devoted to boilers and machinery, and in a sub-basement will be extensive cold storage rooms.

The bridge will connect with the Brooklyn elevated and surface roads, and will therefore bring the cities on the opposite sides of the East River in most complete intercommunication. The Long Island Railroad will send its trains over it into the center of New York. The operation was financed by ex-Comptroller Myers, and the bridge is looked upon as largely the work of the Long Island Railroad Company or of capitalists connected therewith. The engineer, Mr. C. E. Jacobs, Mem. Inst. C. E., Mem. Inst. M. E., of this city, with his corps of assistants, devoted some twelve months to designing the great structure, whose cost will be about $8,000,000, and whose completion is hoped for by the summer of 1897.

The cut shows the bridge crossing the double channel of the East River, with Blackwell's Island seen between the two main spans. In the foreground is the city of New York, the terminal station facing on the avenue traversed by the elevated railroad being seen.



THE NEW BRIDGE OVER THE EAST RIVER AT BLACKWELL'S ISLAND, NEW YORK.

To the right and in the distance is the present suspension bridge. In the background are seen the heights of Long Island, while to the right and on the distant shore is Brooklyn. If all the region about New York is united to form what is known as the Greater New York, the bridge will be a potent factor in establishing a true unity.

An Ocean Steamer Disabled.

Much anxiety was caused recently in New York and Paris by the delay in the arrival of the French line steamer Gascogne, a large ship of the first class. She, however, steamed slowly into port, eight days behind time from Havre, and her arrival was the occasion of much rejoicing. The detention was due to the breaking of the piston of one of her compound engines. It was necessary to disconnect the engine and extend the steam pipes so as to unite the remaining engines. It proved to be a tedious and difficult job.