

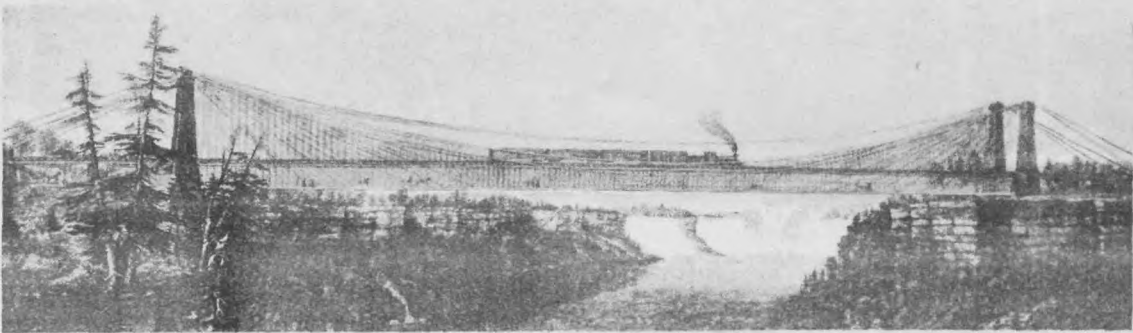
STORIES of New Jersey

took about 20 trained men with him to Trenton, where he designed and built his own machinery to weave wire rope and cables.

ROEBLING'S EARLY BRIDGES

From this plant came the massive cables that made the bridge over Niagara Falls possible. And where could a more dangerous and dazzling undertaking have been found than spanning these hurling waters with a combination railroad and highway suspension bridge? But to Roebling it was just another engineering problem. Many engineers laughed at the idea of carrying a railroad train over that turmoil of water, on a web apparently so frail. Failure was freely predicted.

Roebling flew a kite across the gorge to get his first wire over and from that single wire built up his cables. The bridge was opened to the public in 1854. On March 16, 1855, the first railroad train in history crossed a suspension bridge and to the amazement of the public, the bridge did not collapse.



Niagara Falls Bridge (1854)

This accomplishment demonstrated the soundness of Roebling's claims for giant wire structures and established him as one of the outstanding engineers of the age. Other contracts quickly followed. He built the Allegheny Bridge over the Monongahela River at Pittsburgh in 1856 and the Cincinnati-Covington Bridge over the Ohio in 1867.

In the meantime there was considerable agitation for a bridge over the East River connecting the cities of Brooklyn and New York. The idea still seemed to many like a wild dream, and most Brooklynites preferred the safety of their chugging ferries. Roebling, in the late fifties, had written to Abram S. Hewitt, distinguished engineer, later to become Mayor of New York, suggesting a hanging bridge that would not interfere with navigation. But nothing had been done.

The winter of 1866-67 was the coldest, bitterest and longest New York had ever known. Huge drifts of ice surged and crackled around the keels of the ferries and tied up river traffic. Passengers from Albany, coming by train, reached New York before the Brooklynites could cross the river. Manhattan and Brooklyn looked across at each other and remembered Roebling and his dream of a bridge hanging on steel wire. The demand for the bridge rose to a clamor.