

inches wide each, provided with iron rails for the running of two passenger trains back and forward alternately.

These trains will be attached to an endless wire-rope, propelled by a stationary engine, which is located on the Brooklyn side, underneath the floor, the two tracks being operated like an incline plane, with a speed of twenty miles per hour, the whole transit occupying only five minutes from terminus to terminus.

From eight to ten compartment cars, each fifty feet long, and holding one hundred persons, will constitute a train. By means of opposite doors on the side of the cars, and wide platforms, it is possible to fill and empty the trains in two minutes, without producing interference between the going and coming passengers. For this reason the Bridge is widened out to one hundred feet at this point.

In addition to these trains, arrangements are being made for a connection with the underground railroad, (New York Central) at the New York City Hall, by which passenger cars can be passed over the Bridge to Brooklyn without change. These cars will pass under Chatham street, and be transferred to the level of the Bridge by a hydraulic lift.

The Central or fifth division of the Bridge floor forms a promenade for foot travel, fifteen feet in width. It is elevated five feet above the roadway, affording a view over both sides of the Bridge.

CABLES.

The Bridge is supported by four main cables; two outer ones, and two near the middle of the flooring. They will be sixteen inches in diameter; composed of galvanized, tempered, cast steel wire, No. 6 gauge; having a strength of one hundred and sixty thousand pounds per square inch of section. The cables are aided by a system of one hundred and four stays in each quarter. They together will uphold the superstructure of the main span, the aggregate weight of which, inclusive of cables, will be five thousand tons.

TOWERS.

The two main towers form the principal features of the