

and the beton 135 pounds; these weights are probably slightly in excess of the actual weights. In estimating the weight of the superstructure carried, Piers 1 and 3 are each supposed to carry one half the weight of one arm of the draw, with the same length of moving load, this result being attainable, with a lifting latch of sufficient power; Pier No. 2 is supposed to carry the entire weight of the draw and turn-table, with 290.5 feet of moving load, those being the weights carried by it under the present arrangement of wedge plates. In Piers 1, 2 and 3, the base of the foundation is assumed to be the whole size of the caisson inside of the frame, but not reaching within fifteen inches of the outside of the planking; in Pier No. 4, where the lower caisson forms not only the covering, but an integral part of the pier, the foundation is assumed to be the full size of the caisson, and the timber and iron are computed as part of the weight carried. The moving load is assumed to be 2,240 pounds to the foot, excepting in the case of Pier No. 7, where, as the length of track carried is but 100 feet, the load per foot is estimated at 2,800 pounds; the weights of the trusses are the same as those used in proportioning the superstructure:—

PIER No. 1.

Masonry, 1,234 c. yards.....	5,164,290 lbs.
Truss.....	131,500 “
Draw, 90 feet.....	172,800 “
Moving load, 157.5 feet.....	352,800 “
Total.....	<u>5,821,390 “</u>

Area of base, 986 sq. feet; pressure per sq. foot, 5,904.05 lbs.; pressure per sq. inch, 41 lbs.

PIER No. 2.

Masonry, 1,199 c. yards.....	5,017,815 lbs.
Beton, 767 c. yards.....	2,795,715 “
Draw.....	735,000 “
Moving load, 290.5 feet.....	650,720 “
Total.....	<u>9,199,250 “</u>

Area of base, 1,104.46 sq. ft.; pressure per sq. ft., 8329.18 lbs.; pressure per sq. inch, 57.84 lbs.