

towers by an arch, and forming a gateway, instead of isolated columns, the *appearance* of the want of lateral stability could have been avoided. But this would have changed the whole plan of masonry, and its cost would have been more than doubled, without adding to its safety.

The character of the anchor masonry is that of strong rubble, laid in cement mortar, no regard being had to outside appearance.

SADDLES ON TOWERS.

On the top course of each column, a cast-iron plate was laid down, well bedded in cement, 8 feet square, $2\frac{1}{2}$ inches thick, and strengthened by three parallel flanges for the reception of two independent saddles. The top of the plate and the bottom of the saddles are planed off. Each saddle rests on ten cast-iron rollers, five inches in diameter, and $25\frac{1}{2}$ inches long, turned off to the same size. They are placed close together. The ordinary pressure upon each tower being about 500 tons, makes each roller bear 25 tons. The object of these rollers is to admit of a slight movement of the saddles, whenever the equilibrium between the land and suspension cables is disturbed, either by changes of temperature, or by passing trains. The rollers were cast of a very close grained, dense and uniform metal.

Although a movement of the saddles is caused by a small difference of tension, no motions are thereby communicated from the suspension cables to the land cables. A train moving at the rate of 10 miles an hour, scarcely produces enough of motion to be perceptible in the suspension cables, and none at all in the land cables.