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TEST OF A NEW BRIDGE BY MEANS OF ELEPHANTS, AT BRIDGEPORT, CONN.

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In the year 1800, by a special act of the legislature of Connecticut, a part of Stratford was set off as a borough—the first in the State—and in consideration of its harbor being spanned by bridges, it was called “The Borough of Bridgeport.” The borough has grown to be a city of about 50,000 inhabitants, with numerous wharves, railroads, mills, factories, and stores; but its original peculiarity continues to be characteristic, so that no one can pass through the place without noticing its bridges; and no one can live there without hearing of Pixley, Benjamin, and Walker, of colonial times; and more recently of Noble, Barnum and Brothwell, as men by whose public spirit they were constructed. There are eight bridges within the city limits; five spanning the Pequonock river, and three crossing old Mill creek, better known by its three enlargements, Stillman’s pond, Pembroke lake and Yellow-mill pond. Each of these bridges has an interesting local history, the particulars of which will not now be given. Those built in colonial days were primitive affairs, of course, though some of them still stand as monuments to the honest workmanship of the fathers. But the Center bridge, and other more recent structures, are characterized by modern improvements. Though originally toll bridges, they are now all owned by the city, and are free.

The Lower bridge was built in 1791, by funds raised by a lottery, and for that reason it was long called the Lottery bridge. It took the place of a ferry that crossed the Pequonock harbor. It was a wooden

structure, and though useful, and having much to do with the growing prosperity of the city, was unsightly enough; being lined for a considerable distance with little shops, and a high parapet the rest of the way obstructing the view. As the western end of this bridge was near the steamboat landing and also near the passenger depot of the Consolidated railroad, while the eastern end was near the large factories of East Bridgeport, and connected with the street leading to Stratford, the amount of travel over it was very great, and increasingly so every year. The structure itself was wearing out and becoming unsafe. The board of public works decided, therefore, to replace it by something more substantial, ample, and elegant. Work was begun on it last April, and it was finished in December, at a total cost of \$70,000, not including the approaches, which will cost as much as \$20,000 more. There are five large and six small piers, resting on 783 piles, carrying 2,672 tons of granite masonry, 305 tons of iron, 445 tons of asphalt flooring, and other material enough to make the grand total of weight 3,521 tons. Each pile driven is estimated to have a carrying capacity of 10 tons, while the maximum stationary load is only $4\frac{1}{2}$ tons. The draw is to be operated by an electric motor, which will be a novel appliance of electrical power, and will save time and expense in working it. The strength of the entire bridge was peculiarly tested by the road roller, weighing 17 tons, which was worked backward and forward in laying the asphalt roadway. But when all was completed, Mayor Coughlin suggested to Mr. P. T. Barnum that he should test the bridge by sending over it a dozen of his elephants. There was a certain propriety in this, as Mr. Barnum’s agent,

Mr. C. R. Brothwell, was the special committee from the board of public works for the building of this bridge. Accordingly, in the presence of a large concourse of people, the veteran showman marshaled his elephants and had them driven upon the new bridge. It is well known that an elephant ordinarily approaches a bridge with extreme caution, trying it with his trunk, and by stepping one foot upon it before trusting it with his entire weight. But in this case the whole platoon marched boldly along as if the bridge had been but a continuation of the solid highway. An attempt was made to have them string along singly; but they preferred grouping themselves together like a flock of sheep. Thus they are represented in the accompanying engraving, which is from a photograph by Mr. L. Farini. The aggregate weight of the brutes was about thirty-five tons, or more than double the weight of the road roller. The draw yielded exactly the eighth of an inch under the unusual strain, and settled back to within one-twentieth of an inch of its original position. In estimating the load upon the structure, the weight of the crowd of men ought to be added to that of the elephants. It may safely be predicted that, if the bridge should stand for a century, it would hardly again be subjected to so severe a strain.

ON her trial trip on Friday, January 11, the dynamite cruiser Vesuvius made a wonderful performance, covering 22,947 knots with the wind and tide, and 20,346 knots against the wind and tide, thus making a record of 21,646 knots mean speed. An indicated horse power of 4,295 was developed. A mean of 271.8½ revolutions was attained.



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