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THE CROSSING OF THE CENTRAL RAILROAD OF NEW JERSEY AND THE PENNSYLVANIA RAILROAD IN ELIZABETH, N. J.

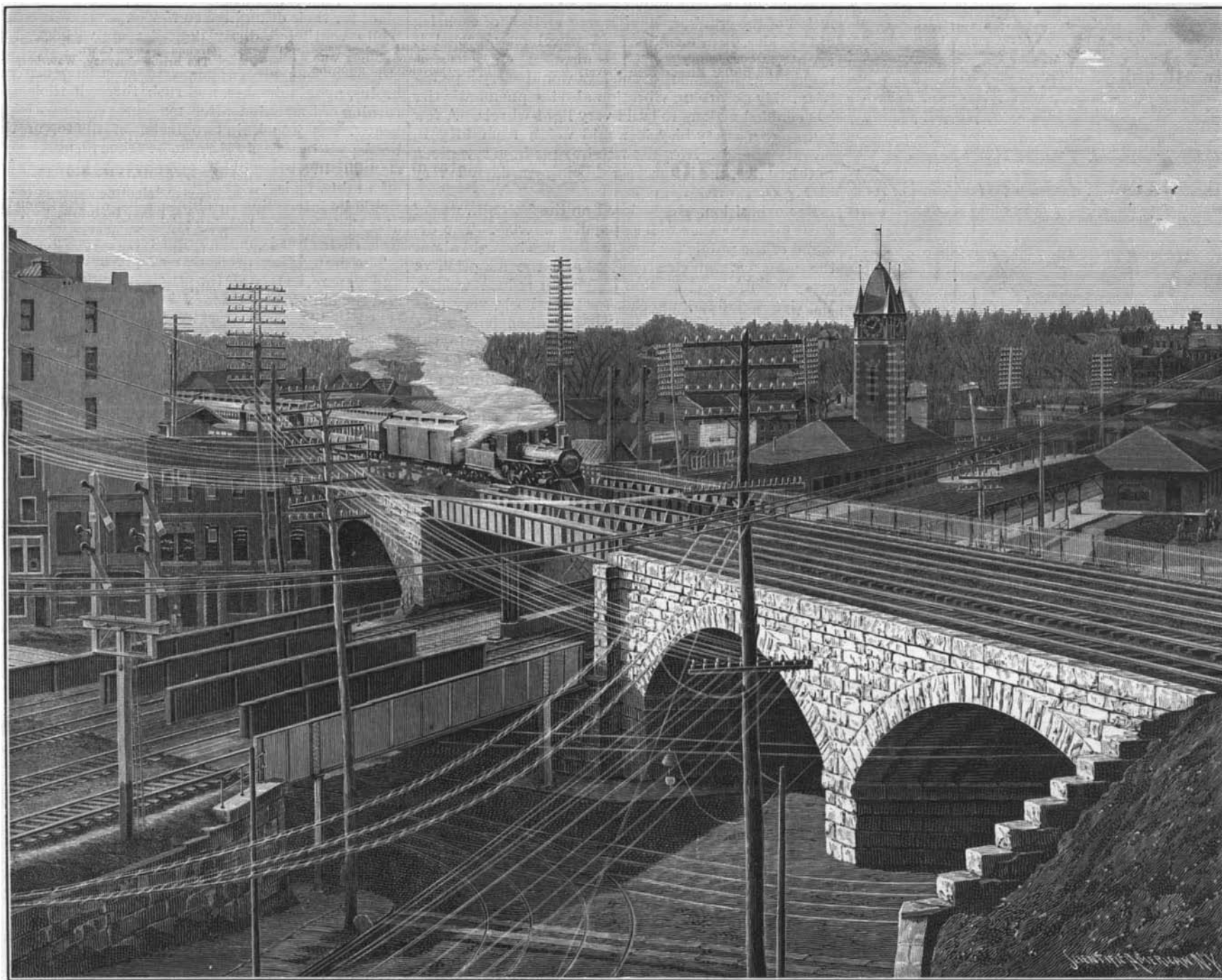
The city of Elizabeth, N. J., is traversed by the main lines of the Central Railroad of New Jersey and of the Pennsylvania Railroad, the two roads crossing each other at Broad Street in the heart of the city. For many years this intersection of two railroads and street has been a center of great danger, not only from the liability of collision of trains, but from the possibility of accidents to street cars, ordinary vehicles or pedestrians. The problem of doing away with the grade crossings within the city limits was taken up

the remaining grade crossing was accomplished by lowering the street, which was done at the mutual expense of the Central Railroad and the city, so that at present the street, descending a pretty steep grade, passes under both railroads and then rises again to its original level. Over the street the tracks of the Central Railroad are carried on an elevated way of plate girder type, the original level of the Central Railroad being maintained unchanged. The railroads do not cross each other at right angles, and the Pennsylvania Railroad runs oblique to all the streets, and the effect has been that the masonry work represents some very striking examples of skew arches. In constructing

Railroad is raised. Some time in the future, when the rest of the Central Railroad tracks may be raised, the city will be free from dangerous crossings.

Rapid Transit in St. Louis.

St. Louis spent \$5,000,000 during 1893-4 in the improvement and extension of its street car service. There are now but two horse car lines in the city, and the claim is made that for rapid transit St. Louis is ahead of any other city in the country; certainly no Eastern city is so well equipped. It is interesting to note the effect such a system of rapid transit has had on the traffic. Street car officials say they never before had



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some time ago, and our illustration shows the solution of the trouble at the point specially alluded to, a solution now practically completed and forming one of the most striking examples of railroad work erected during the year.

The first step in that direction is represented by the raising of the tracks of the Pennsylvania Railroad. The roadbed is now carried throughout the city on an elevated structure, doing away with grade crossings along its entire line; the work being comparable to that recently done in Jersey City on the same road. The effect of raising the tracks was to bring the Pennsylvania above the level of the Central Railroad, so that each road could be worked without interference from the other.

The original street level, it will be understood from what has just been said, corresponded with the level of the Central Railroad tracks. The abolishment of

these the voussoirs have been so laid as to make the skewing very pronounced, producing a peculiar and very impressive effect. For the use of passengers, enabling them to pass from one side of the structures to the other after purchasing their tickets, tunnels penetrate the masonry work.

As the reader looks at the picture, in the background, characterized by its tower, is seen the Central Railroad station; toward the left of the cut the end of the Pennsylvania Railroad can be seen, while houses on the street whose grade has been lowered face the reader on the left of the cut. In the foreground trolley tracks are seen, so that at this point there are superimposed two steam railroads, one above the other, over a street and trolley line. By keeping in mind the fact that the lower railroad represents the original grade of the street, it can be seen how much the street is lowered, and how much the Pennsylvania

so prosperous a year, and that the returns have been far beyond their most sanguine expectations. The fact has been demonstrated that improved facilities cause people to ride more. The figures are not yet completed, but when made up they will show that street car travel here has increased something like 20 per cent. The ugly feature of what would be otherwise a most gratifying report lies in the fact that accidents have been of very frequent occurrence on the trolley lines, though the assertion is made that even in this particular an improvement is noticeable.

The Wm. Cramp & Sons Ship and Engine Building Company have earned, as premiums for speed, over and above the contract price, about \$750,000 for the two cruisers Columbia and Minneapolis. Up to this time they have received for seven vessels \$1,230,000 in speed premiums.