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PROGRESS OF THE BROOKLYN BRIDGE.

The several views of the New York approach to the East River Bridge, shown below, will give a better idea of the magnitude and present condition of this portion of the great work than any amount of verbal description.

At this writing but one small arch of masonry lacks completion. The only other gap in the magnificent viaduct is at Franklin Square, where Pearl street is to be spanned by an iron bridge, and it is probable that the contract for this portion of the work will have been given out before these lines are printed.

The construction of the superstructure of the main bridge has been delayed, owing to the grave difficulties encountered in producing and shaping the steel. The trusses called for

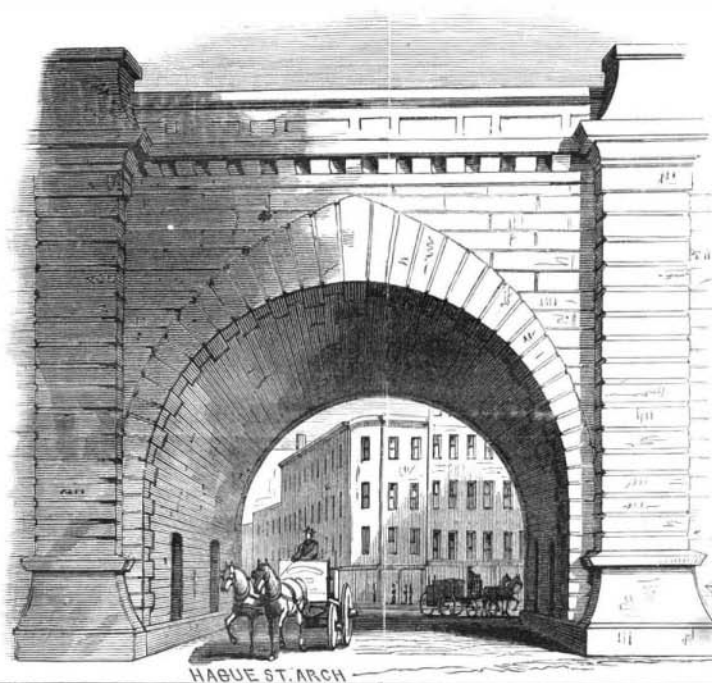
larger bars of steel than had ever been produced in this country, and special machinery had to be constructed for the purpose. And when this had been done it was found that much greater engine power than had been anticipated was required for the rolling of the bars. Another source of delay was the different behavior of steel from iron while in process of shaping, necessitating repeated alteration of the rolls before some of the more difficult forms and sizes could be exactly and uniformly produced. All these engineering and mechanical difficulties have now been surmounted; all the forms and sizes that the structure will require have been made, and are now being delivered more rapidly than the material can be used. It is expected that a large stock of material can be accumulated in the yards by the piers during

the winter months, so that as soon as the weather will permit the erection of the superstructure of the bridge can be pushed with the utmost speed.

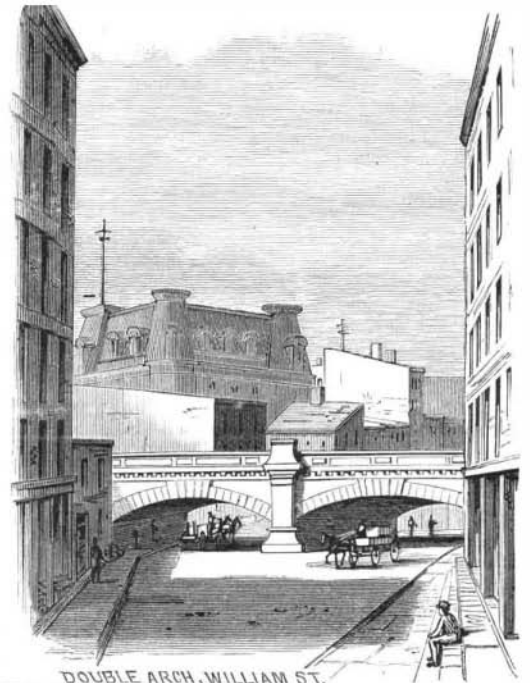
The great cables and other supporting elements of the structure are complete and ready for the attachment of the superstructure with its suspenders and stays. For some distance on each side of the towers the suspenders are already in place; and it is probable that during the remaining winter months several forty-foot sections of the truss work will be swung into position landward and riverward from each of the towers; but it will scarcely be prudent to push the work further until the stormy season is at an end. The erection of that portion of the superstructure within the towers will be begun the first week in January.



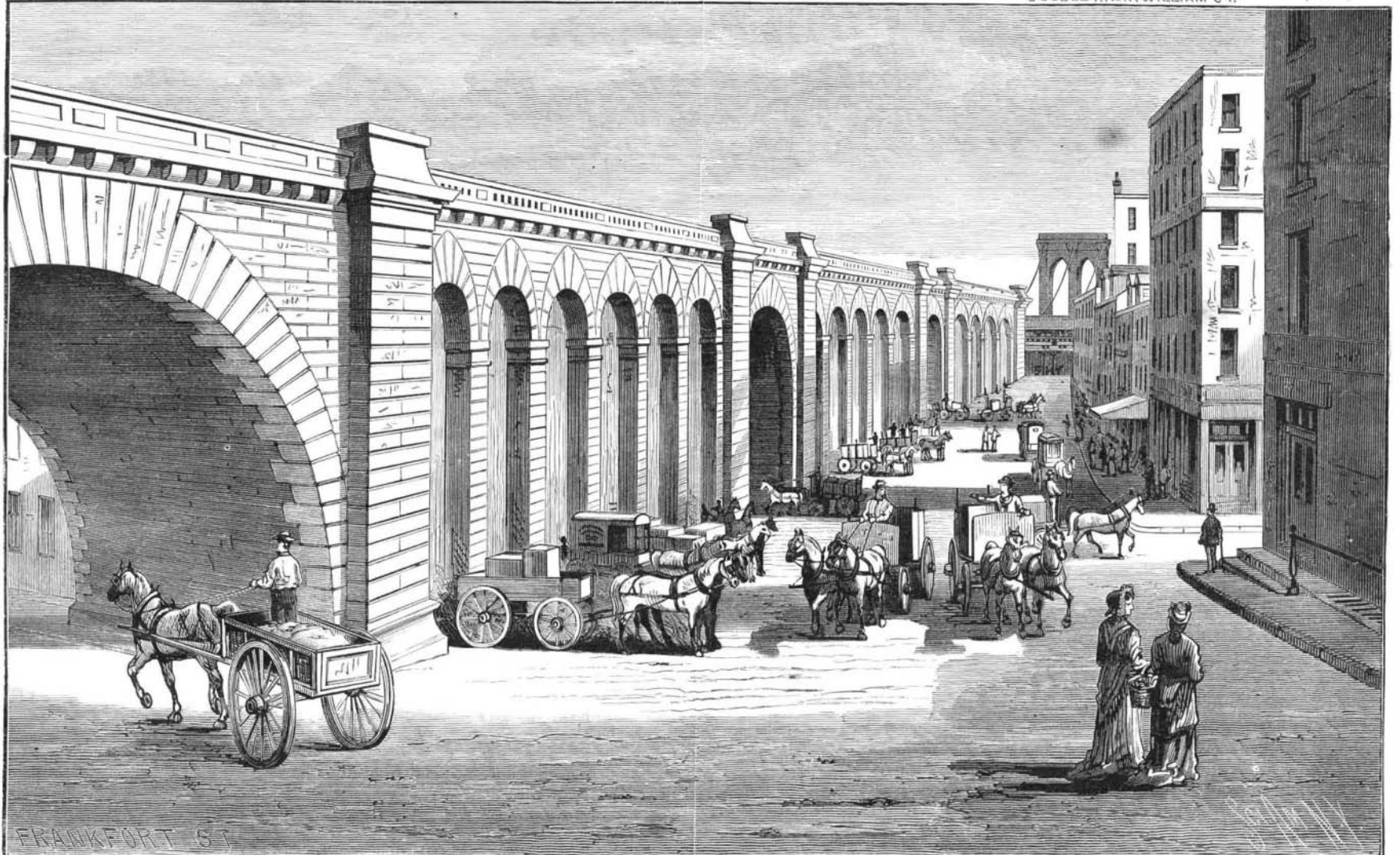
LOOKING DOWN HAGUE ST



HAGUE ST. ARCH



DOUBLE ARCH, WILLIAM ST.



FRANKFORT ST

NEW YORK APPROACH TO EAST RIVER BRIDGE.

By the beginning of spring, unless some altogether unexpected disaster occurs, here or at the steel works, there will be in readiness a sufficient amount of material to allow the work to be pushed with the utmost rapidity.

With the facilities which are at command for handling the material, and the large number of men that can be employed, the engineers are confident that the five thousand tons of metal which the superstructure will require can be put in place during the next twelve months.

The timber for the wooden portion of the roadway is now being prepared by a process of creosoting. No official action has yet been taken with regard to the means to be employed in handling passengers and freight; it is probable that a cable system, similar to that in use in San Francisco, will be adopted.

The Rose of Jericho.

At the last meeting of the Royal Botanic Society, Professor Bentley called attention to the peculiar properties of the so-called Rose of Jericho, pointing out that during the dry season it becomes coiled up into a ball, and is blown about the dry, sandy deserts of Egypt and Syria for many months; but at the first shower of rain its leaves expand, and it becomes apparently revived as if its life were renewed.

The Steam Engine Governor.

The great importance of strong and efficient steam engine governor connections is illustrated by the fatal accident which took place Nov. 18, at Messrs. Howard and Bulbough's iron works, Accrington, Eng. It appeared at the inquest that one of the bevel wheels which drove the governor had broken, and the consequence was that the engine "ran away."

Hot Sand a Good Bed Fellow.

The comfort which a hot water bag or even a hot brick may afford a person on retiring, chilled, is very great, and beyond this, the use of some such warmth-producing appliance is useful as a health preservative and restorative.

Telegraphic Progress in China.

The U. S. Consul-General at Shanghai, China, informs the State Department at Washington that the Emperor of China has given permission for the construction of a telegraph line from Shanghai to Tientsin, a distance of 1,200 miles.

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PROGRESS OF THE BRUSH SYSTEM OF ELECTRIC LIGHTING.

The ancient saw anent the share of milk obtained by the still suckling seems to be pretty well borne out in the progress of the Brush system of electric lighting. A dozen systems, so-called, have made more noise and have attracted more newspaper attention; but while they are for the most part still "promising," the Brush system has been quietly taking possession of the field.

The latest list of prominent users of the Brush light embraces twenty-five rolling mills, iron and steel works, machine shops, car works, wire works, and the like; twenty saw mills, paper mills, oil works, printing houses, and other factories and manufacturing establishments; twenty woolen, cotton, linen, and silk factories, several of them employing over a hundred lights each; a dozen mines, smelting works, etc.; more than a dozen large wholesale and retail stores, using from six to sixty-four lights; a dozen public parks, docks, summer resorts, and the like, including a mile and a half of river front and docks at Montreal; circuses, colleges, hotels, steamers; and large numbers of city lights in San Francisco, St. Louis, Chicago, Cleveland, Detroit, Grand Rapids, and other cities, besides New York and Brooklyn, where a hundred or more lights are already in use.

The company formed in London to introduce the Brush light there have already placed two hundred lights in various parts of the city, and have ordered from Cleveland nearly as many more, contracts having been signed for the lighting of the Houses of Parliament, Charing Cross Station, Ludgate Hill Station, Blackfriars' Bridge, St. Paul's Churchyard, and other conspicuous places.

A less imposing but more admirable application of this light, and one that is being rapidly adopted, is in connection with locomotive headlights. The generator is operated by a small engine taking steam from the boiler and placed opposite the air compressors of the Westinghouse brakes.

Wherever the electric light has been brought fairly into competition with gas for lighting large rooms or open spaces, it has given a good account of itself in comparisons of cost. In very many cases, however, any comparison with gas is out of the question. With gas it is simply impossible to do certain kinds of work at night, or to do it as rapidly and well as by daylight.

ON AIDS TO HEARING.

Until within a few years the old-fashioned ear trumpet was the sole reliance of deaf persons as an aid to hearing, but since the invention of the telephone much more attention has been given to the subject of sound, its production, and distribution.