

THE LEIGHTON BRIDGE AND IRON WORKS, ROCHESTER, NEW YORK.

BRIDGE BUILDING,

Represented by
THE LEIGHTON BRIDGE & IRON WORKS,
Rochester, N. Y.

At what date in the world's progress, bridges were first constructed, history does not inform us; neither are we informed by what method streams were originally crossed which could not be forded.

The first bridges of which we have any account were built of wood. But very ancient stone bridges of great magnitude are found in China.

Abydos, a City of Asia, directly opposite Sestos in Europe, with which, from the narrowness of the Hellespont, it seemed to those who approached it by sea, to form only one town, became famous in Classic history for the bridge of boats which Xerxes built there across the Hellespont, about 480 years before the Christian era. The insecurity of such bridges is well illustrated in the fact that when Xerxes reached the Hellespont he found the bridge of boats destroyed by the storms, and he crossed the strait in a small fishing vessel.

The emperor Trajan, also entered the enemy's country by throwing a bridge across the rapid streams of the Danube, A. D. 105, and a battle was fought in which the slaughter was so great, that in the Roman Camp, linen was wanted to dress the wounds of the soldiers. This bridge is said to have been 4,770 feet in length.

Brotherhoods for building bridges existed in South France as early as A. D. 1180. A Triangular bridge is referred to at Croyland Abbey, in a Charter dated, 943. From 1100-18, the first stone bridge was erected at Bow, near Stratford, by Queen Matilda, during the reign of Henry I., of England. A bridge is known to have existed at London as early as 978. The first iron bridge was built over the Severn at Shropshire, England, 1777. Sunderland bridge was built by Wilson, 100 feet high, with a span 236 feet, in 1796.

The fine Suspension Bridge at Menai Strait was built in 1825. The

celebrated Suspension Bridge two miles below Niagara Falls is one of the finest structures of the kind in the world. It is a single span of 800 feet, suspended about 250 feet above water. It is supported by more than 8,000 wires, whose estimated strength is supposed to equal a strain of 10,000 to 12,000 tons. This bridge was completed in 1855.

One of the widest bridges in the world is that across the Thames by which the London, Chatham and Dover Railway enters Victoria Station, Pimlico. This bridge was founded by Lord Harris, 1865.

The Britannia Tubular Suspension Bridge, one of the most wonderful enterprises of engineering in the world, was constructed about one mile south of the Menai Strait Suspension Bridge, already referred to.

places was considered the most gigantic operation of the kind, ever successfully performed. The first locomotive passed through this bridge in 1850.

One of the most stupendous tubular bridges in the world, is that over the St. Lawrence River in Canada.

The rapid increase in the extension of railroads and highways in this country especially through the more hilly or mountainous regions, where streams and mountain gorges are numerous, has tended largely to increase the demand for substantial iron bridges especially those made of wrought iron which experience has proved to be the safest and most economical.

One of the most extensive and favorably known manufacturers of Iron Bridges is Mr. Thomas Leighton, owner and manager of the celebrated Leighton Bridge and Iron Works, Rochester, New York.

Bridge making calls for a special class of engineering skill, and Americans, to-day, stand prominent among the bridge builders of the world. Iron bridges devised and erected by American skill are used in every country of the civilized world, and have universally received unqualified approbation. American bridges are noted for their strength, their graceful appearance, the rapidity with which the parts can be put together, and the great ease with which an impaired part can be replaced.

The Hudson River is crossed at Albany, N. Y., by an iron double track railroad bridge, built by the Leighton Bridge and Iron Works, of which Mr. Thos. Leighton is owner and manager. The engraving at the foot of this page affords a fine view of this magnificent structure. The cut heading this page represents the works of this company at Rochester, N. Y., and the centre picture is a view of the railroad bridge across the Connecticut

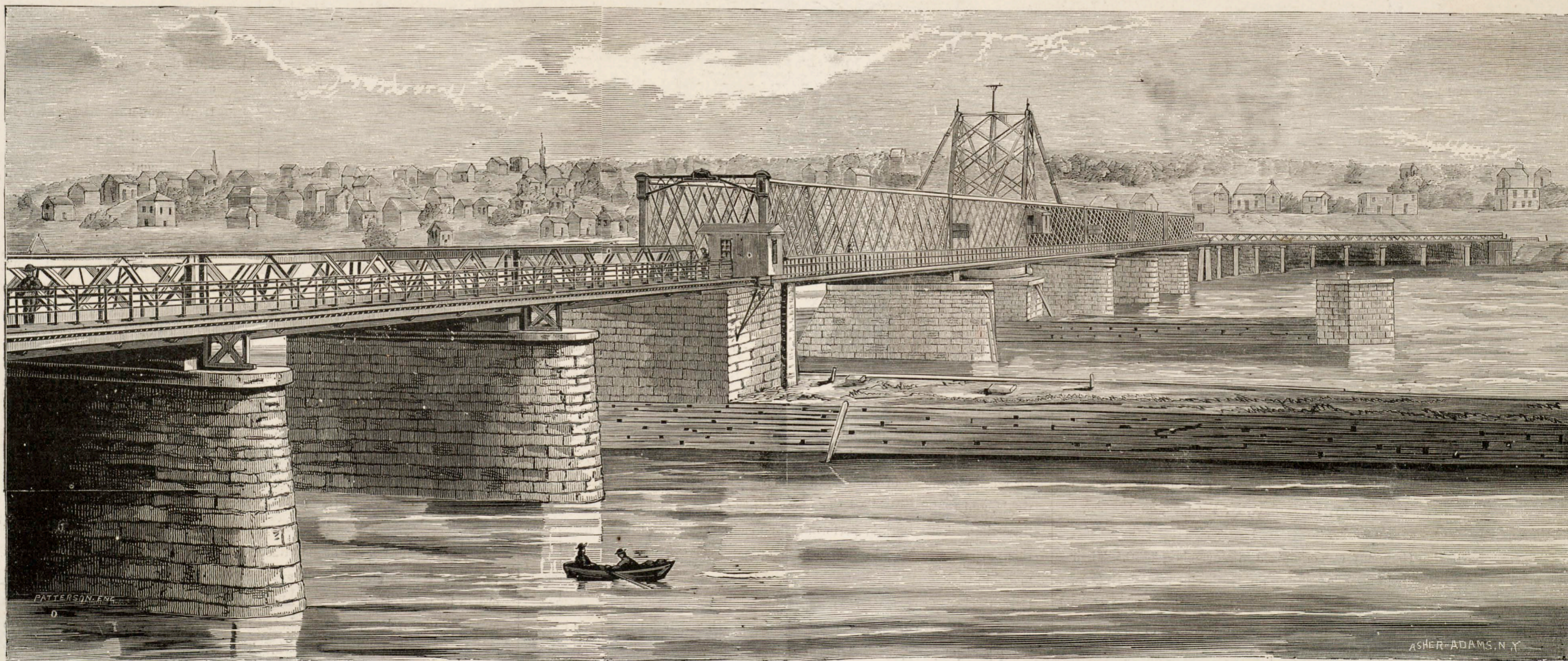
River, at Springfield, Conn., also built by Thos. Leighton. The works of this company are scattered over all the land, and each separate structure is an enduring monument to their fame.

With ample capital, every aid that inventive genius can supply, and a complete corps of skilled workmen, they are always ready to undertake works of every degree of magnitude, and to promptly and faithfully execute them.



VIEW OF RAILROAD BRIDGE OVER CONNECTICUT RIVER, SPRINGFIELD, MASS.

At the centre of the Strait is a rock called the Britannia Rock, the surface of which is about ten feet above low water level, on which is built a tower, two hundred feet above water. This tower supports two lines of tubes, strong enough for laden trains. The ends of these tubes rest on abutments on the shore and each tube is more than one fourth mile in length. The height of the tube within is thirty feet at Britannia tower and diminishing to twenty feet at either abutment. The liting of these tubes to their



VIEW OF BRIDGE OVER THE HUDSON AT ALBANY, N. Y. BUILT BY THE LEIGHTON BRIDGE AND IRON WORKS.