

UNITED STATES PATENT OFFICE.

SIMEON S. POST, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN IRON BRIDGES.

Specification forming part of Letters Patent No. 38,910, dated June 16, 1863.

To all whom it may concern:

Be it known that I, S. S. POST, of Jersey City, county of Hudson, State of New Jersey, have invented a new and Improved Method of Constructing Iron Bridges; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon.

The nature of my invention consists in constructing an iron bridge in such a manner as that the expansion and contraction of the material will not produce injurious effects upon the structure, and in this manner obviating one of the most serious objections to the universal use of such bridges.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction more minutely.

Figure 1 shows a side elevation of two panels of one end of a truss or girder. Fig. 2 shows a plan of the chord and its attachments. Fig. 3 shows an end view of a post with the attachment of the chord and top plate. Fig. 4 shows a side view of a post. Fig. 5 shows a plan of the upper plate or chord used by me.

I fasten the pedestal A by means of suitable bolts to the masonry or proper abutment, which pedestal is made to receive the end post of the bridge, which post is rounded at the bottom, as shown at B, and held in the pedestal (which has a lip, *d*) by the bolt *g*, passing through both, the pedestal and the slot *e* in the chord F, to which chord I attach the brace *g'*, which is fastened with the strut or post H to the top chord or plate, J, by means

of a bolt, *k*, passing through the joint box L, as shown in Fig. 5, *k*. The joint-box is used for the purpose of connecting the sections of the top chord or plate in such a manner that by passing the bolt *k* through the struts and braces will allow both to revolve upon said bolt to an extent corresponding to the degree of the expansion or contraction. The joint-box may be placed upon the struts, and the braces *g'* and *h'* may be introduced, as shown in Fig. 3, at R, and the bolt *k* passed through, as shown in Fig. 1 at P, after which the sections of the plate or upper chord may be attached to the box by bolts *m m*.

Having thus described my invention, what I claim, and for which I desire to secure Letters Patent, is—

1. The joint-box connecting segments of the top chord or plate, and also receiving the heads of the posts or struts and braces, with the loose pin *k* passing through the whole.

2. A cylindrical joint in the construction of a bridge, as shown at B, irrespective of its location, when used for the purpose of obviating the dangers of expansion and contraction.

3. The slotted chord, when used in connection with the cylindrical joint and for the same purposes.

4. The construction of the chord, when used in combination with the cylindrical joint, substantially as described and shown.

S. S. POST.

Witnesses:

ANDREW J. POST,
O. A. STEVENS.