M. Turley,

Truss Bridge.

No. 110,173. Patented Dec. 13, 1870.

Fig. 1.

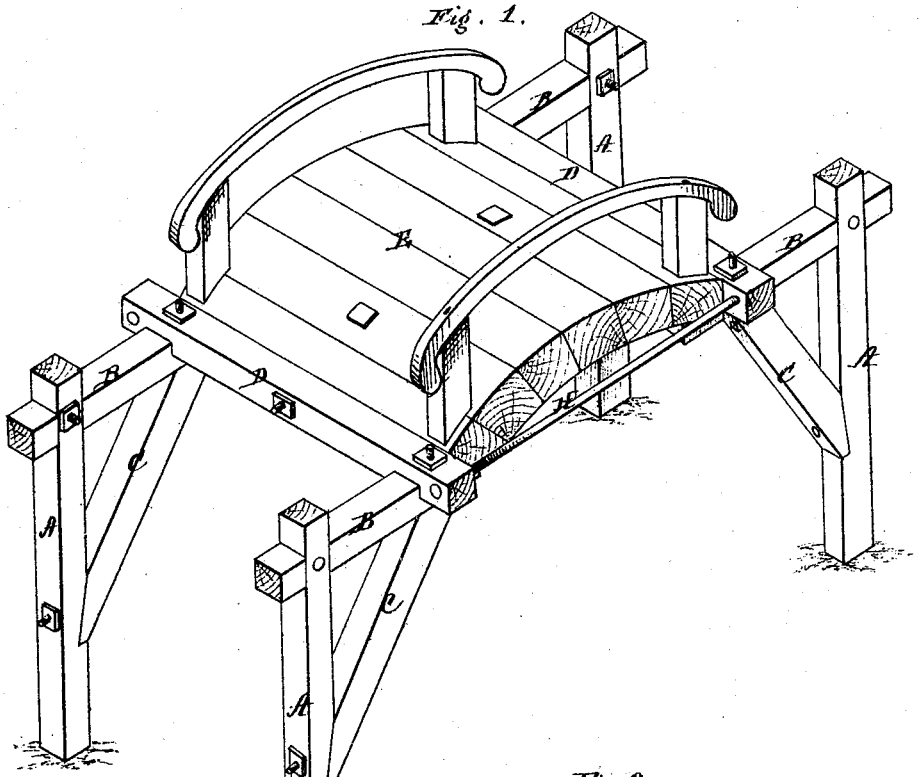
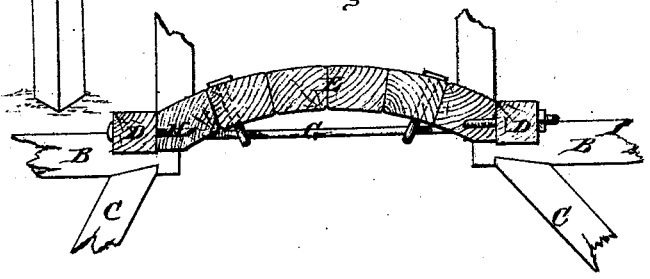


Fig. 2.



Witnesses;

C. L. Brent.

A. Pearman

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by Alexander Mason

Attys.

United States Patent Office.

MARSHALL TURLY, OF COUNCIL BLUFFS, IOWA.

Letters Patent No. 110,173, dated December 13, 1870; antedated December 3, 1870.

IMPROVEMENT IN BRIDGES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, MARSHALL TURLY, of Council Bluffs, in the county of Pottawattomie and in the State of Iowa, have invented certain new and useful Improvements in Bridge; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a bridge, as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view, and

Figure 2 is a longitudinal vertical section of my bridge.

A A represent upright posts, which are set in the ground from six to ten feet, and from twelve to forty feet from the banks of the creek, and then the grade covers all up.

Into the upper ends of the posts A A are let in beams B B, supported by braces C C, and a cross-beam, D, laid across the outer ends of the beams B B, the whole forming the abutment at each end of the bridge.

By placing the abutments at a distance of from twelve to forty feet from the banks of the creek, the banks are not disturbed, but left just as nature formed them, and hence they do not wash away.

The arch E of the bridge is formed of lumber from six to inches wide and two inches thick, set edgewise, and beveled on one edge to form the circle, spiked well together by suitable spikes.

The end pieces are further spiked to the cross-bars D D. This arch is a portion of the bridge, and not for the bridge to rest on, as is now usually done.

A rod, G, with bolts at the ends, passes through the center of the end pieces of the arch, and also through the center of the cross-beams D D, keeping the end of the bridge from bulging up when the weight is on one end thereof.

The ends of the cross-beams D D are connected by side-rods H H, which help to keep the bridge together.

The bridge thus constructed will be all covered up except a portion in the center of the arch, and thus rendering it secure that it cannot be carried off with high water.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the abutments A B C D, arch E, central rod G, and side-rods H H, all constructed and arranged as described, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 12th day of April, 1870.

MARSHALL TURLY.

Witnesses:

V. H. GREGG,

S. J. HAMM.