(No Model.)

J. W. CROW.

STRINGER AND TIE FASTENER.

No. 353,624. Patented Nov. 30, 1886.

Fig. 1.

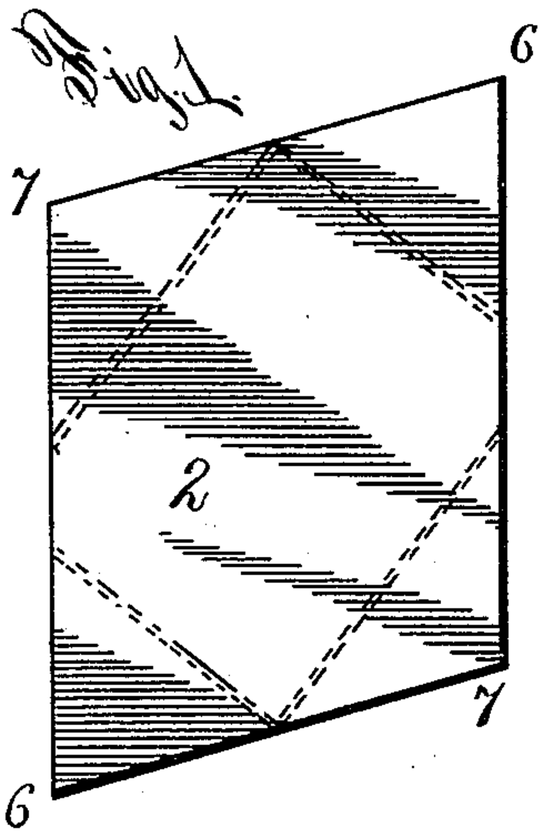


Fig. 2.

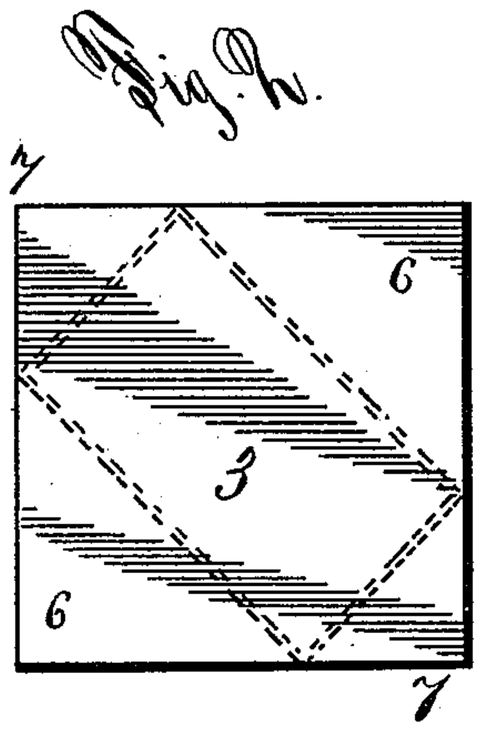


Fig. 3.

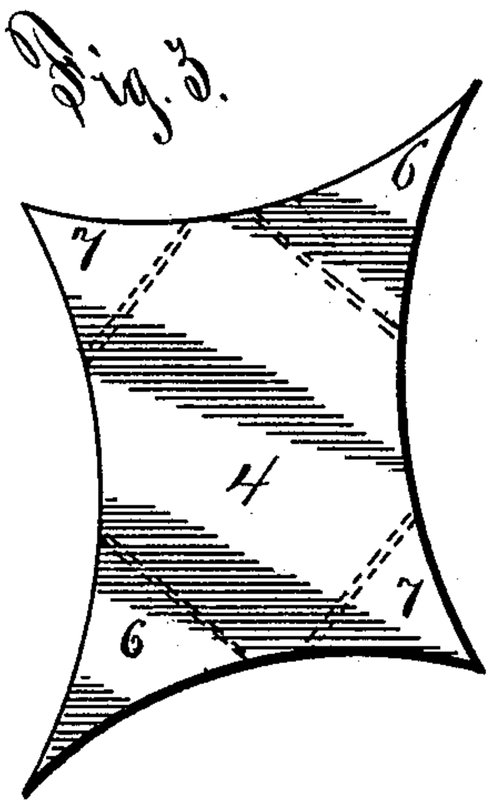


Fig. 4.

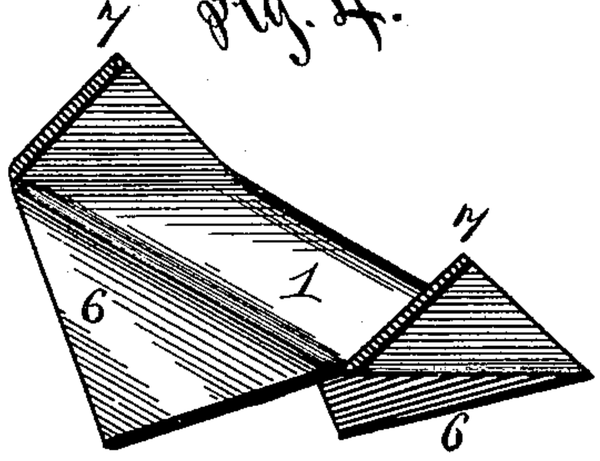


Fig. 6.

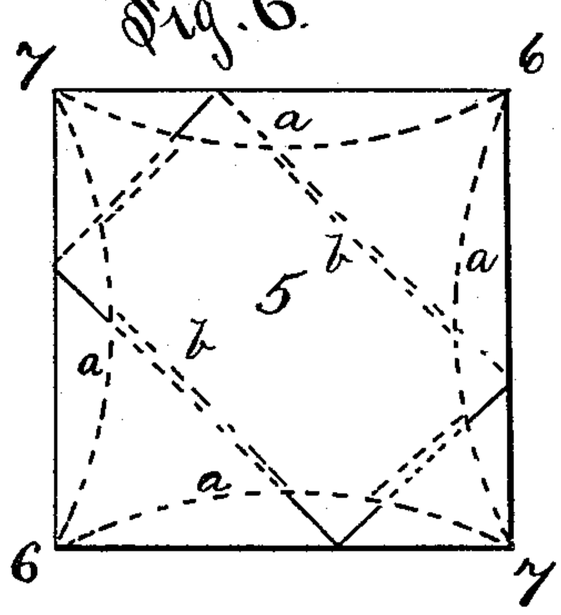
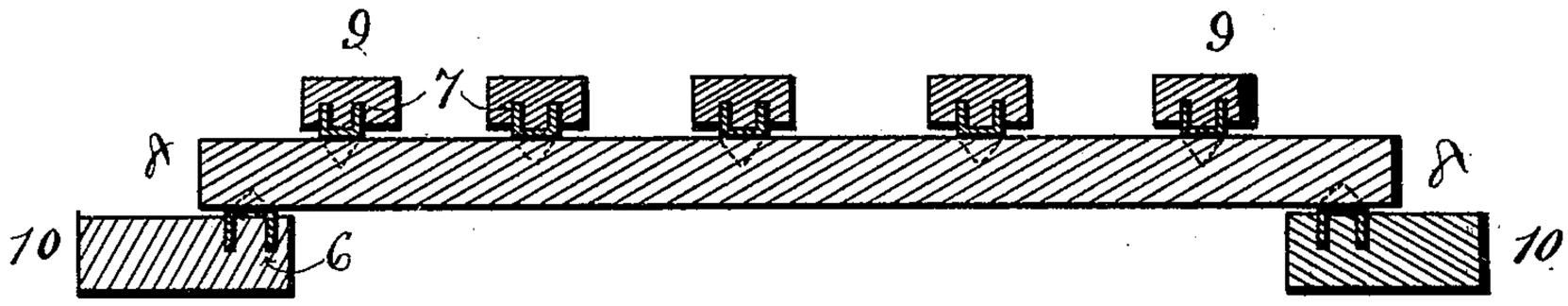


Fig. 5.



Witnesses.
Jno. C. Ingram.
S. A. Brereton.

Inventor.
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By his atty. Chas. L. Duffie

UNITED STATES PATENT OFFICE.

JACOB WALTER CROW, OF ARKADELPHIA, ARKANSAS, ASSIGNOR OF ONE-HALF TO AUSTIN M. CROW, OF SAME PLACE.

STRINGER AND TIE FASTENER.

SPECIFICATION forming part of Letters Patent No. 353,624, dated November 30, 1886.

Application filed March 22, 1886. Serial No. 196,113. (No model.)

To all whom it may concern:

Be it known that I, JACOB WALTER CROW, a citizen of the United States, residing at Arkadelphia, in the county of Clark and State of Arkansas, have invented certain new and useful Improvements in Stringer and Tie Fasteners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to stringer and tie fasteners; and it consists in the device hereinafter fully described and set forth.

In the accompanying drawings, Figures 1, 2, 3, and 6 are views showing the various shapes in which I may first cut the metal used in making my invention. Fig. 4 is a perspective view of my completed fastener. Fig. 5 is a longitudinal sectional view of a trestle-work, showing a number of my fasteners in position.

My invention is described as follows: The stringer and tie fastener 1 may be cut out of any desired thickness of metal, and of any size or shape conformable to the conditions necessary to the proper performance of the duties required of it and to the material upon which used, as hereinafter set forth. The plates 2, 3, 4, and 5, after having been cut in the desired shape, have two of the diagonal corners, 6, bent down at right angles to the face of said plate and parallel to each other, and the remaining two diagonal corners, 7, are turned up at right angles to the face of said plate, and parallel with each other, and at right angles with the points 6, thus making a complete fastener, 1, as shown in Fig. 4. The form of the plate, as shown in Fig. 6, is square, a segment being cut out of each side, as indicated by the dotted lines *a*. The points 6 and 7 are then turned down and up, being bent on the double-dotted lines *b*. In bending the corners 6 and 7 to their respective angles I bend them on such lines that the corners 6, which are turned down, may be somewhat longer than the corners 7, which turn up, to enable the builder or repairer to dislodge or draw out the upper points, 7, of the plate 1, from the under side of the timber without drawing or loosening the points 6 from the lower timber.

These tie-fasteners are designed to take the place of the old drift-bolt and line-spike, and are used as follows: Place upon the stringer 8 one or more of the fasteners, with their long points 6 turned down and running with the grain of the wood, drive the same home until the under side of the plate rests against the face of the stringer, and then upon the two points 7, which point upward, place a tie, 9, and drive the same home. The two points 7, running exactly opposite to the two long points 6 will also run with the grain of said tie, and hold the same as effectually and securely as if bolted in place. The stringer 8 is fastened to the abutment in the same manner.

The points of said fastener fitting closely in the grain of the wood prevents water from getting in and rusting said points, and the plate of said fastener prevents the timbers from fitting closely down, face to face, but causes a small space to be left between them, which allows of a free circulation of air, and thereby prevents the timbers rotting.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A stringer and tie fastener, 1, being made of a plate of metal, as above described, having the shorter points, 7, turned up and perpendicular to the face of the plate and parallel with each other, and its longer points, 6, turned down perpendicular to the face of said plate and parallel with each other, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB WALTER CROW.

Witnesses:
E. C. MCDONALD,
W. E. BARKMAN.