(No Model.)

M. F. ROCKWELL & G. W. PEARSALL.

TIMBER COUPLING FOR FRAMED STRUCTURES.

No. 408,750. Patented Aug. 13, 1889.

Fig. 1.

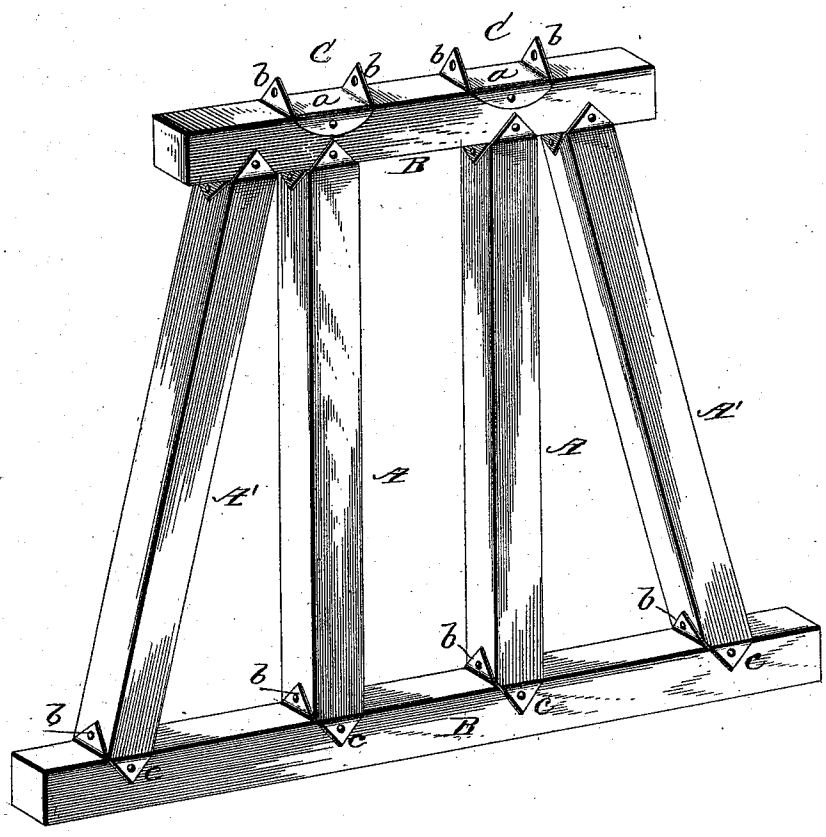
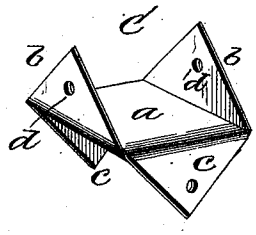


Fig. 2.



WITNESSES

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MORGAN F. ROCKWELL AND GEORGE W. PEARSALL, OF CHATTANOOGA, TENNESSEE.

TIMBER-COUPLING FOR FRAMED STRUCTURES.

SPECIFICATION forming part of Letters Patent No. 408,750, dated August 13, 1889.

Application filed November 28, 1888. Serial No. 292,059. (No model.)

To all whom it may concern:

Be it known that we, MORGAN F. ROCKWELL and GEORGE W. PEARSALL, citizens of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented certain new and useful Improvements in Framed Structures; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a perspective view of our improved coupling, showing it applied to the timbers of bridges or other like structures; and Fig. 2, a detail view, in perspective, of the coupling on an enlarged scale.

This invention relates to certain new and useful improvements in framed structures in which the timbers are secured together by means of metallic plates; and it has for its object to provide a structure of this kind wherein no tenons or mortises are required, leaving no two timbers in direct contact with each other or chance for moisture to gather and rot the timbers, and in which timbers arranged at other than a right angle to each other can be readily secured; and the invention consists in the peculiar combinations and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described and claimed.

In the accompanying drawings, A represents the longitudinal and B the cross timbers of a framed structure connected together in accordance with our invention.

The coupling device is preferably constructed of boiler-iron, and consists of the plate *a*, of shape and size to correspond with the shape and size of the timber in cross-section, said plate having two upwardly-extending binding-flaps *b* and two downwardly-extending binding-flaps *c* upon opposite sides of the plate *a* to those of the flaps *b*, the timbers fitting between the flaps, as shown in Fig. 1. Holes *d* are made in the flaps large enough to admit a bolt or lag-screw of sufficient size to hold the timbers together, which, with the coupling device above described, will form a perfect fastening, and as there are no two pieces of timber coming together there is no chance for moisture to gather and rot the timber, and consequently less liability of its decaying.

With our improved means of coupling the timbers together, no tenons or mortises are required, and the timber is left whole and in the best manner to resist the elements.

The structure is of superior strength by the use of our coupling, the timber, as previously stated, being left whole, the caps and sills are so much the better able to withstand the pressure put upon them, and the expense in constructing is materially decreased, as the cost of making mortises and tenons will be saved, as well as the timber necessary to make the tenons on the posts. There is great saving of expense in repairing, from the fact that when the coupling device is used in building trestles a piece can be easily removed and a new one put in its place. If a post, it is only necessary to remove the screws or bolts from the top and bottom, when the old piece can be removed and a new one substituted, any piece of timber in the structure being removed in the same manner.

By our construction the inclined timbers A′ may be as readily secured to the cross-timbers as those arranged at a right angle thereto. There is no space between the timbers A, A′, and B, and no mortises for the accumulation of moisture, thus avoiding the tendency to decay.

Having now fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The framed structure described, consisting of the cross-timbers B B and the metallic couplings C, having binding-flaps *c* secured to the sides of said cross-timbers, and the longitudinal timbers of the same dimensions

in cross-section as the plate *a* of the couplings and resting directly thereon, and having the flaps *b* of said couplings extending upon the outer faces thereof and secured to said longitudinal timbers upon the sides thereof, substantially as shown and described, and for the purposes specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

MORGAN F. ROCKWELL.
GEORGE W. PEARSALL.

Witnesses:
GEO. T. FOWLER,
W. G. M. THOMAS.