C. BRAMBLE.
Timber-Joint.

No. 218,920. Patented Aug. 26, 1879.

Fig. 1.

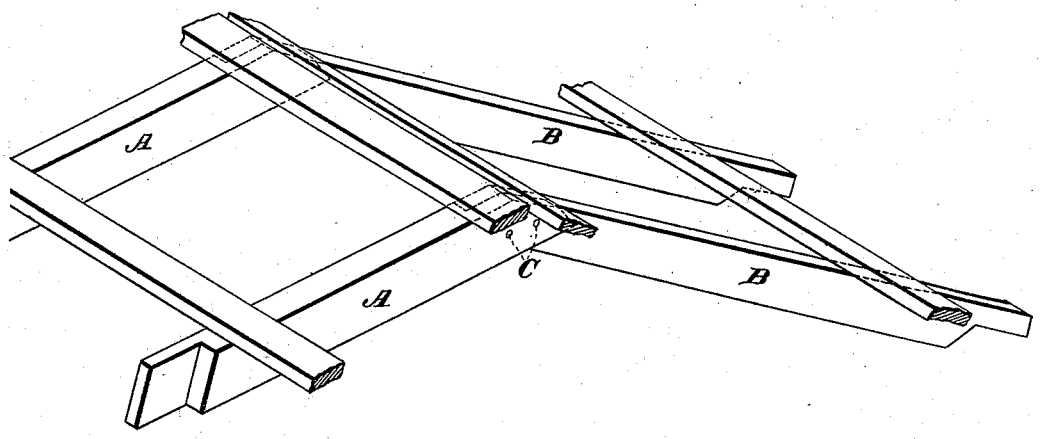
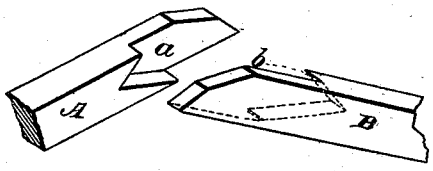


Fig. 2.



Witnesses:
Jas. E. Hutchinson.
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Inventor.
Lyrus Bramble, by
Geo. D. Prindle, his
attorney

UNITED STATES PATENT OFFICE.

CYRUS BRAMBLE, OF LODI, N. Y., ASSIGNOR TO N. M. MATHEWS, CHARLES E. BAKER, AND CHARLES A. WOODWORTH, ONE-FOURTH TO EACH.

IMPROVEMENT IN TIMBER-JOINTS.

Specification forming part of Letters Patent No. **218,920**, dated August 26, 1879; application filed July 19, 1879.

To all whom it may concern:

Be it known that I, CYRUS BRAMBLE, of Lodi, in the county of Seneca, and in the State of New York, have invented certain new and useful Improvements in Joints for Timbers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of a section of the roof of a house in which the roof-timbers or rafters are connected together by means of my improved joint, and Fig. 2 is a like view of the ends of two rafters separated from each other.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to enable rafters, or other like portions of the frame of a building, to be so connected together as to insure an increase of strength, and to relieve from strain the pins, nails, or bolts employed for confining said parts together laterally; and to this end it consists in the peculiar construction of the splice or joint, substantially as and for the purpose hereinafter specified.

In the annexed drawings, A and B represent two rafters, which have their ends connected together, and have each such angles as are required for the lines of a hip or a Mansard roof.

The intersecting or connecting of each rafter is cut away upon its inner face, so as to produce a lap or a halving joint; but the end of said rafter is cut upon an angle of about thirty degrees from a line having a right angle to the length of the same, the acute angle of said end being upon the lower side of said rafter.

The recess *a* or *b* of each rafter A or B has a depth equal to one-half the thickness of the same, and at its inner end has such conformation as to enable it to receive the pointed end of the other rafter, and when said parts are arranged with the end of each contained in the recess of the other rafter they are secured together by pins C, nails, bolts, or other equivalent means, passing transversely through the lapping portions.

It will be seen that in consequence of the engagement of the end of each rafter with the recess formed in the opposite rafter all longitudinal pressure or bending strain is sustained by said interlocking ends, and the only office of the pins is to confine said parts in lateral engagement, by which means a much stronger joint is secured than would be practicable where the pins sustained a shearing strain.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

As an improvement in joints for timbers, a halving recess, *a* or *b*, formed in the side of each rafter A or B at its intersecting end, and having its said end formed upon an acute angle to receive the correspondingly-shaped halved end of the opposite rafter, said parts being finally secured together by lateral pins C, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 2d day of July, 1879.

CYRUS BRAMBLE.

Witnesses:

RICHARD ELY,

JAMES M. JACKSON.