(No Model.)

N. S. DAVIS.

JOINT FOR RAFTERS.

No. 332,060. Patented Dec. 8, 1885.

Fig. 1.

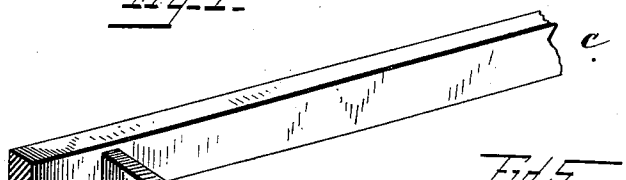
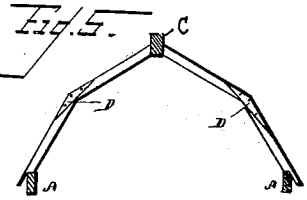


Fig. 5.



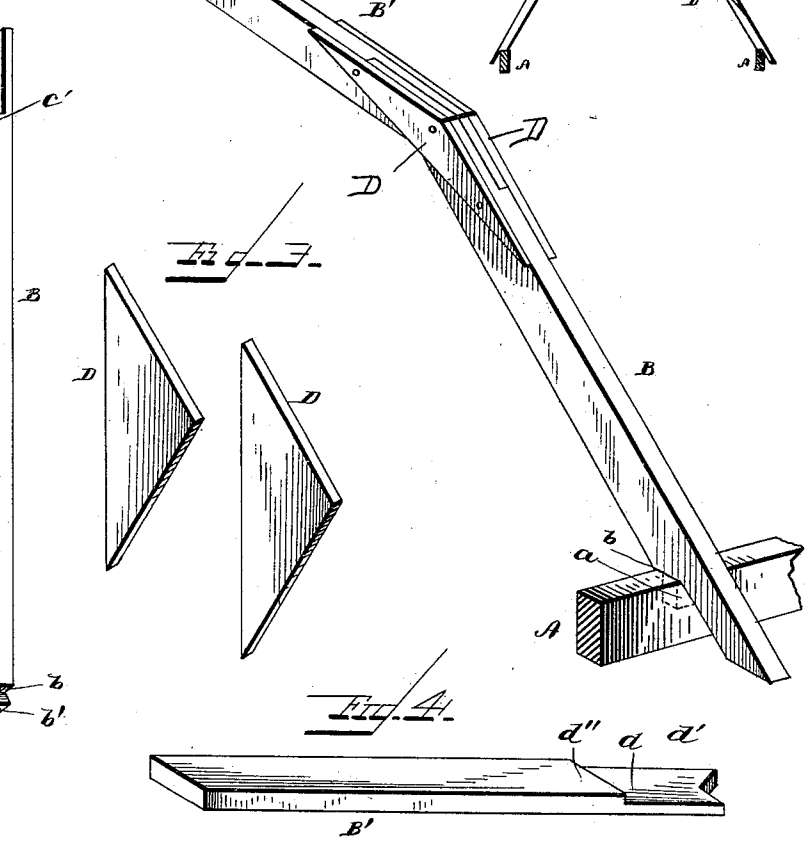


Fig. 2.

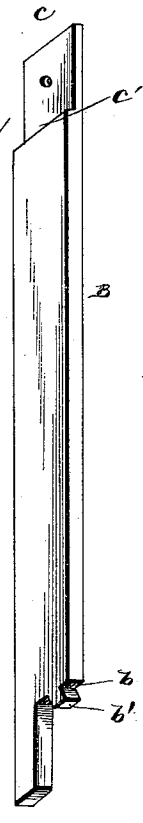


Fig. 3.

Fig. 4.

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UNITED STATES PATENT OFFICE.

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JOINT FOR RAFTERS.

SPECIFICATION forming part of Letters Patent No. 332,060, dated December 8, 1885.

Application filed September 17, 1885. Serial No. 177,370. (No model.)

To all whom it may concern:

Be it known that I, NATHANIEL S. DAVIS, a citizen of the United States of America, residing at Brockport, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Joints for Rafters; and I do hereby 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 letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to the framing together of the timbers or rafters of a building to form a self-supporting roof, and in attaching the parts together so as to form a hip-roof; and my invention consists in the general arrangement and construction of the parts, as will be hereinafter fully set forth, and specifically pointed out in the claim.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective view of a section of a roof constructed in accordance with my invention. Figs. 2 and 4 are perspective views of the rafters. Fig. 3 is a detail perspective view of the locking or binding plates, and Fig. 5 is a side elevation.

A represents the top beam of a frame of a building, which is provided with suitable recesses, *a*, or means for locking or securing the rafters B to the upper ends of the same. The rafters B, near their lower ends, are provided with a horizontal portion, *b*, from which depends at right angles a tenon, *b'*, which enters the mortise or recess in the upper edge of the beam A, the end portion of said rafters projecting beyond said beam. The upper ends of the rafters B are beveled and formed with shoulder portions *c c'*, and the portions between the shoulders and ends are cut away so as to reduce the ends of the rafters B one-half.

B' represents the upper joining rafters, which are provided at their lower ends with a similar cut away side, *d*, which provides a beveled end and shoulder, *d' d''*, so that when the rafters B B' are placed together they will have an angle, as shown, and upon the slant of the adjoining end of these rafters and their shoulders will depend the pitch or slant of the roof. The end of the upper rafter abuts against the opposite rafter and is made fast thereto, or it may, when desired, abut directly against a ridge-pole, C.

At the point of junction of the two rafters B B' are attached plates D, through which pass bolts or other means for securing the parts to each other. These plates are preferably constructed as shown in Fig. 3, their upper sides being beveled, so as to correspond with the angle of the rafters B B', and, if desirable, these beams may be further braced by girders attached to the under side of the same adjacent to the joint, and the two upper rafters may be connected to each other by a horizontal girder attached to the upper end of the same under the ridge-pole.

All the mortised and tenoned parts of the frame of the roof hereinbefore described are held together by means of bolts which pass through perforations in the parts provided for that purpose.

By constructing a roof as hereinbefore described it will be evident that the parts will be self-supporting, and king-posts and horizontal supporting-beams are dispensed with.

I claim—

The combination, with the beam A, having the socket *a*, and the beam B, having shoulders *b c'*, tongue *b'*, and reduced portion *c*, of the beam B', having shoulders *d' d''* and reduced portion *d*, and the plates D, formed to accord with the angular joint between beams B B', as described.

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

NATHANIEL S. DAVIS.

Witnesses:
E. B. FELLOWS,
H. G. BURLINGAME.