(No Model.)

B. T. RAISOR.

Joist Support.

No. 233,696. **Patented Oct. 26, 1880.**

Fig. 1.

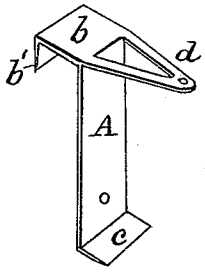


Fig. 2.

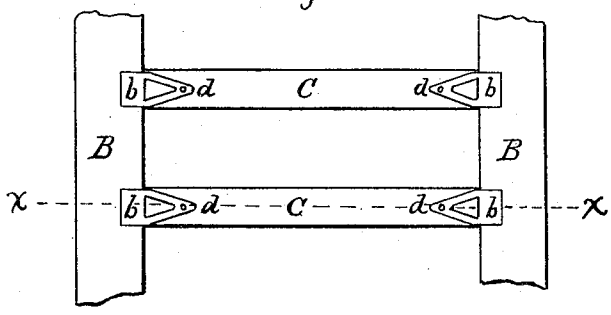


Fig. 3.

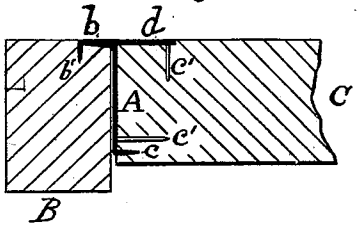


Fig. 4.

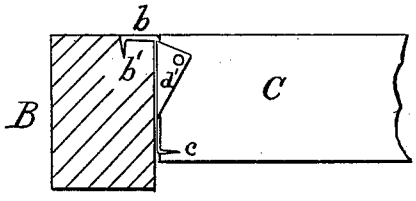


Fig. 5.

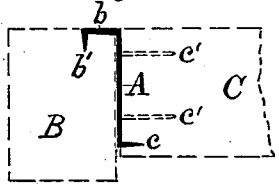


Fig. 6.

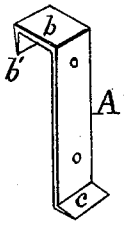
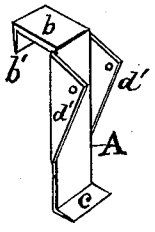


Fig. 7.



Witnesses:

H. A. Daniels

Henry Orth

Inventor:

Benjamin T. Raisor

By M. Burns

Attorney.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

BENJAMIN T. RAISOR, OF CORYDON, IOWA, ASSIGNOR OF ONE-FOURTH OF HIS RIGHT TO BENJAMIN F. VEATCH.

JOIST-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 233,696, dated October 26, 1880.

Application filed May 15, 1880. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN THOMAS RAISOR, of Corydon, in the county of Wayne and State of Iowa, have invented a certain new and useful Joist-Support; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 of reference marked thereon, which form a part of this specification.

My invention relates to joist-supporters adapted to firmly hold in place the joists of a building without gaining the sills or cutting away the joists, and to securely tie the building together.

My supporter consists of a vertical plate provided with a flange to rest upon the sill and to support the end of the joists, and having flanges to secure it to the joist and tie the building together, as hereinafter fully described and specifically claimed.

In the drawings, Figures 1, 6, and 7 are perspective views of the supporter detached, showing the different forms in which it is constructed. Fig. 2 is a plan view of a portion of the sills and joists of a building having my supporters attached. Fig. 3 is a transverse vertical section on line *x x* of Fig. 2. Fig. 4 is a side view of the supporter having side flanges instead of the top joist-flange. Fig. 5 is a side view of a supporter constructed without either top or side joist-flanges.

A represents the vertical plate of a supporter, the length of which is nearly equal to the depth of the joist C, to which it is attached. The top of the plate A is provided with a flange, *b*, usually about two inches in length, to rest upon the top of the sill B. This flange is provided with a downwardly-projecting tie-flange, *b'*, having a sharp edge to be inserted into the sill for tying the supporter and connecting joist firmly to the sill. The lower end of the plate A is provided with a flange, *c*, arranged to extend under the joist, or into it near the bottom, and is of sufficient length to afford the requisite support to the joist. The supporter is provided, also, with a flange, *d*, at the top, arranged to extend over the joist, as shown in the drawings, and is provided with a hole to receive a nail or spike, *c'*, to be inserted through the flange into the joist, to fasten the supporter to the joist. The flange *d* is constructed with a central opening, as seen in Figs. 1 and 2 of the drawings, for the purpose of allowing a flooring-nail to be inserted into the joist through the flange.

The supporter may be constructed without the top flange, *d*, and may be provided instead with a flange, *d'*, on each side of the supporter, as shown in Figs. 4 and 7 of the drawings. These side flanges may be constructed substantially as shown, having holes to receive nails to be inserted into the sides of the joists to securely fasten the supporter to the joist.

As it will not be necessary to tie the building at every joist, some of the supporters may be constructed without either the top flange, *d*, or the side flanges, *d'*, as shown in Figs. 5 and 6 of the drawings, and some of the joists in the middle portion of the building may be supported by the supporters having the tie-flanges, and the other joists may be supported by the supporters having no tie-flanges.

To lessen the weight and cost of the supporters the plate A may be constructed with sufficient strength with a central opening, (not shown in the drawings,) instead of being solid, as shown.

The joists being cut the requisite length to fit between the sills the supporters are adjusted and fastened on the ends of the joists by the nails or spikes *c'*, and the joists being arranged in position the flange *b'* is driven into the sill, so that the under side of the flange *b* will rest firmly upon the sill.

It is readily seen that the use of these supporters avoids entirely the labor of gaining the sills and cutting away the joists, and leaves the full size and strength to the joists, thus avoiding the liability of splitting them by heavy weight, as is often the case when they are cut away in the usual manner, and when these supporters are adjusted and fastened to the sills and joists, as described, the building is securely tied together.

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

1. A joist-supporter having a supporting-flange provided with a tie-flange to hold and tie the supporter on the sill, and having flanges to support and tie the end of a joist to the supporter, substantially as described and shown.

2. A joist-supporter consisting of the plate A, having the sill-flange *b*, provided with the tying-flange *b'*, and having the joist-supporting flange *c*, and one or more joist-tying flanges, substantially as and for the purposes described.

3. The joist-supporter consisting of the plate A, having the sill-flange *b*, provided with the tie-flange *b'*, and having the joist-support flange *c*, substantially as and for the purposes described.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

BENJAMIN T. RAISOR.

Witnesses:

G. E. HARRIS,

W. W. COX.