

(No Model.)

J. J. WILLIAMS.
Tiling for Roofs, &c.

No. 239,007.

Patented March 15, 1881.

Fig: 1.

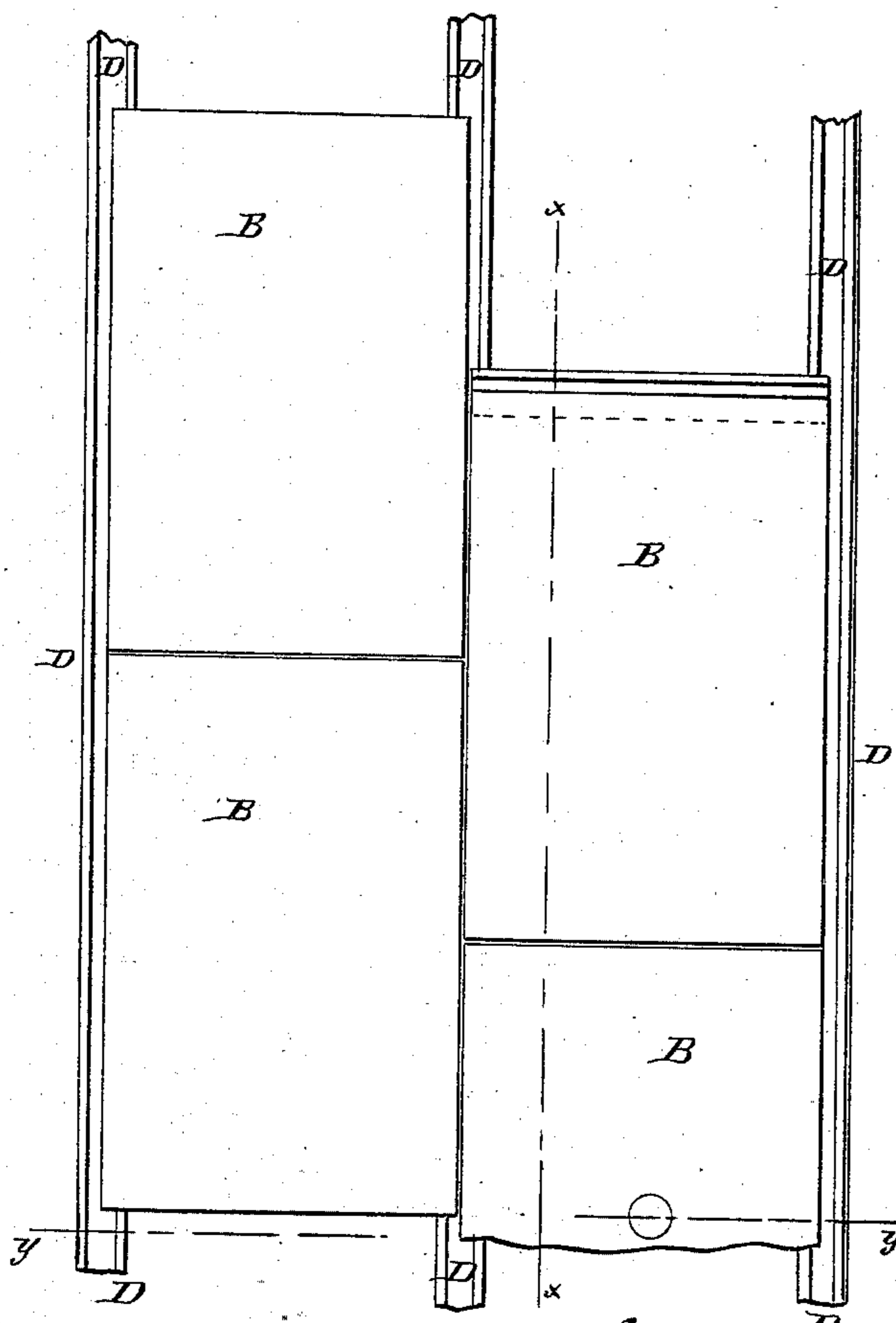


Fig: 2.

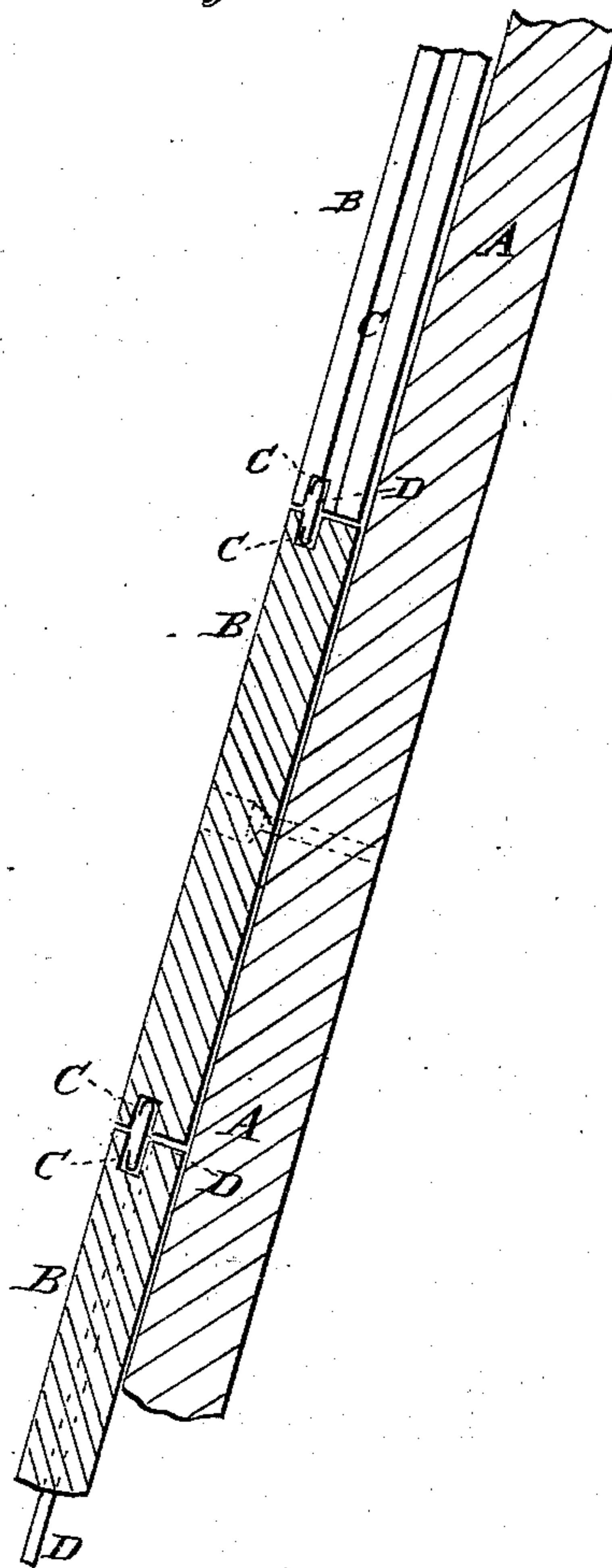


Fig: 3.

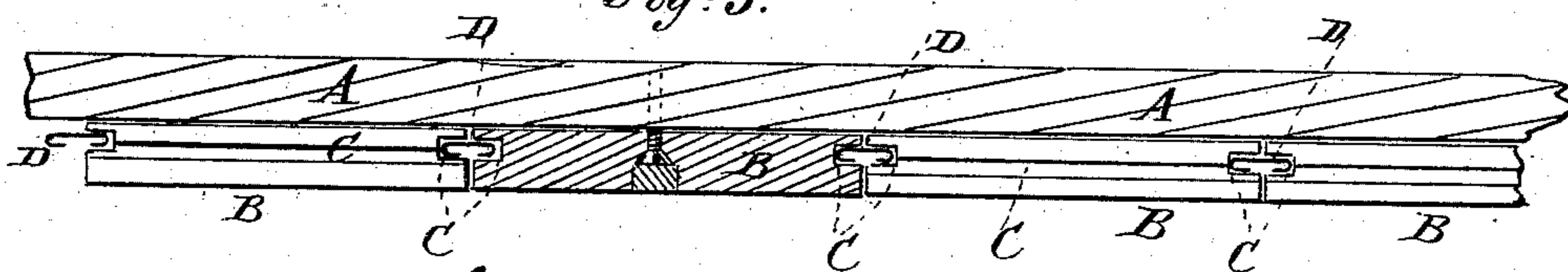
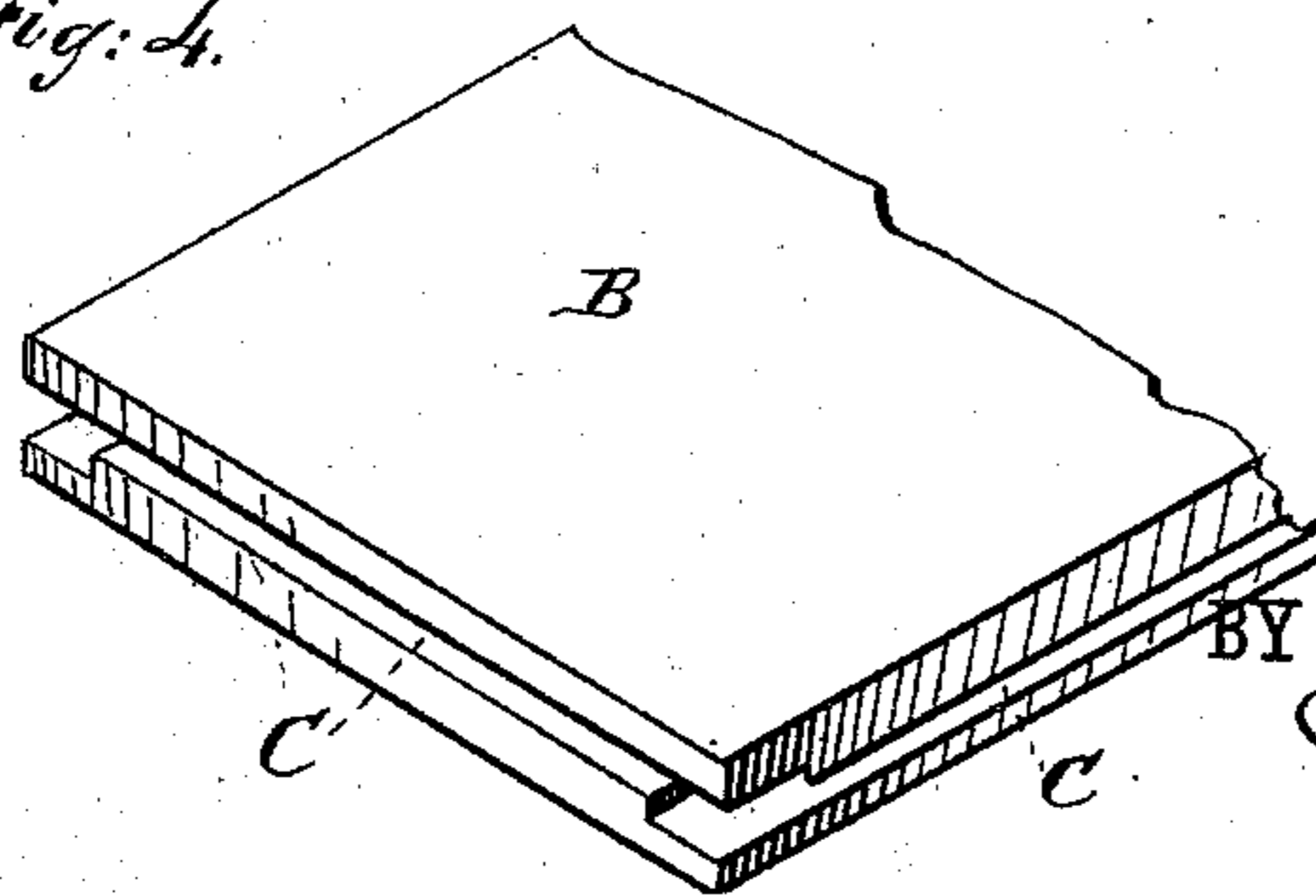


Fig: 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN J. WILLIAMS, OF FAIR HAVEN, VERMONT, ASSIGNOR TO JOEL W. HAMILTON, OF SAME PLACE.

TILING FOR ROOFS, &c.

SPECIFICATION forming part of Letters Patent No. 239,007, dated March 15, 1881.

Application filed July 31, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. WILLIAMS, of Fair Haven, in the county of Rutland and State of Vermont, have invented a new and useful Improvement in Tiling for Roofs, Floors, and other Purposes, of which the following is a specification.

Figure 1 is a plan view of a portion of the improvement. Fig. 2 is a sectional elevation taken through the line *x x*, Fig. 1. Fig. 3 is a sectional elevation taken through the line *y y*, Fig. 1. Fig. 4 is a perspective view of a part of a tile.

Similar letters of reference indicate corresponding parts.

The object of this invention is to apply tiling to roofs, floors, and other places in such a manner that water cannot pass in through the joints between the tiles, and that the expansion, contraction, springing, and sagging of the tiling or its support will not open the joints and cause leakage.

A represents the boarding or other support upon which the tiles B are to be laid to form a roof, floor, or other surface.

In the side and end edges of the tiles B are formed grooves C in such a manner that the grooves C in the ends of the tiles B will be higher or lower than the grooves C in the sides of the said tiles by the thickness of the said grooves, as shown in Fig. 4, and in such a manner that the side grooves in a row of tiles will be exactly in line with each other.

D are dowel-plates, of thin sheet metal, having their side edges turned over, as shown in Figs. 2 and 3, so that when the body of the dowel-plate D rests upon one side of a groove, C, the turned-over edge of the said dowel-plate will rest against the other side of the said groove. The tiles B are laid to break joints, as shown in Fig. 1, and may be laid square or diagonally, as may be desired. The dowel-plates D in the side grooves C are continuous; but the dowel-plates D in the end grooves C are each equal in length to the breadth of a tile, and their ends overlap the side plates. The dowel-plates D are bedded in the grooves C in elastic cement, and the joints between the edges of the tiles B, above and below the dowel-plates D, are filled with elastic cement.

In warm climates the cavities of the dowel-plates D may be left open to serve as air-channels and to carry off any water that may chance to find its way in through the joints between the tiles B; but in cold climates the cavities of the dowel-plates D should be filled with elastic cement, to prevent any water from finding its way in through the joints of the tiles, freezing and cracking the cement or tiles, and thus causing leakage.

The outside row of tiles B, all around, should be secured to the boarding or support A by screws or nails; but the other tiles B should be laid without any other fastening than the dowel-plates D, so that the body of tiles can spring or sag as they expand, or as the support A may spring or settle, without affecting the integrity of the joints between the tiles.

In some cases the channel-grooves C may be replaced by rabbets formed along the lower edges of the tiles, so that the dowel-plates D will rest upon the boarding or support A with their turned-over edges resting against the shoulders of the said rabbets. In this case each tile B should be secured to its support by a screw or nail.

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

1. A tiling constructed substantially as herein shown and described, consisting of the tiles B, having grooves C in their side and end edges, and the dowel-plates D, having their side edges bent over into U form and fitted into the grooves C, as set forth.

2. In tiling, the tiles B, constructed with grooves C in their side and end edges, and having the grooves in their end edges the thickness of the said grooves higher or lower than the grooves in their side edges, substantially as herein shown and described, whereby the dowel-plates in the side grooves can be continuous and can be overlapped by the ends of the dowel-plates in the end grooves, as set forth.

JOHN J. WILLIAMS.

Witnesses:

GEORGE M. FULLER,
JAMES W. SPENCER.