

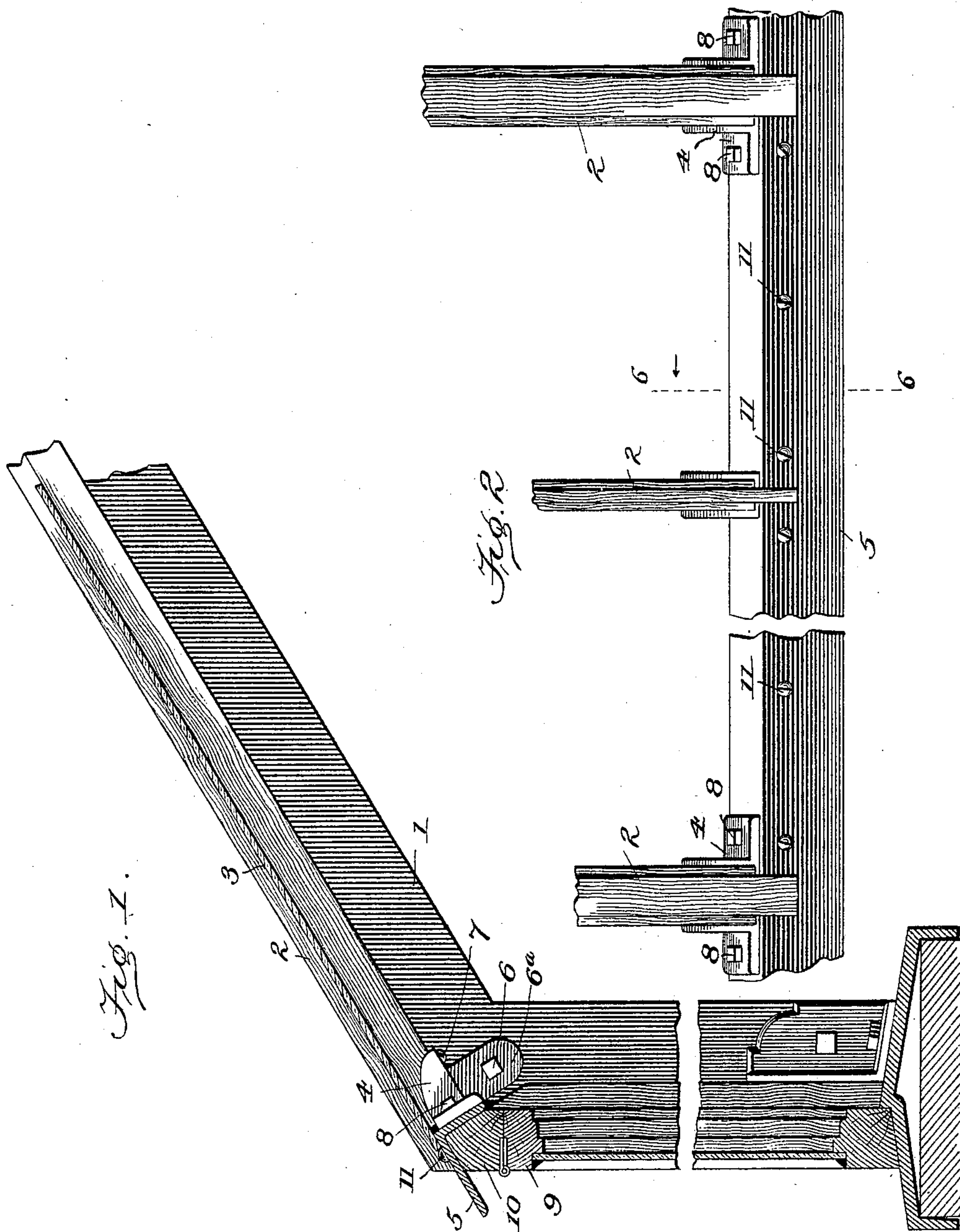
(No Model.)

3 Sheets—Sheet 1.

W. A. BURNHAM.
METAL EAVES.

No. 583,247.

Patented May 25, 1897.



WITNESSES:

Edwin L. Bradford
K. H. Fenning

INVENTOR

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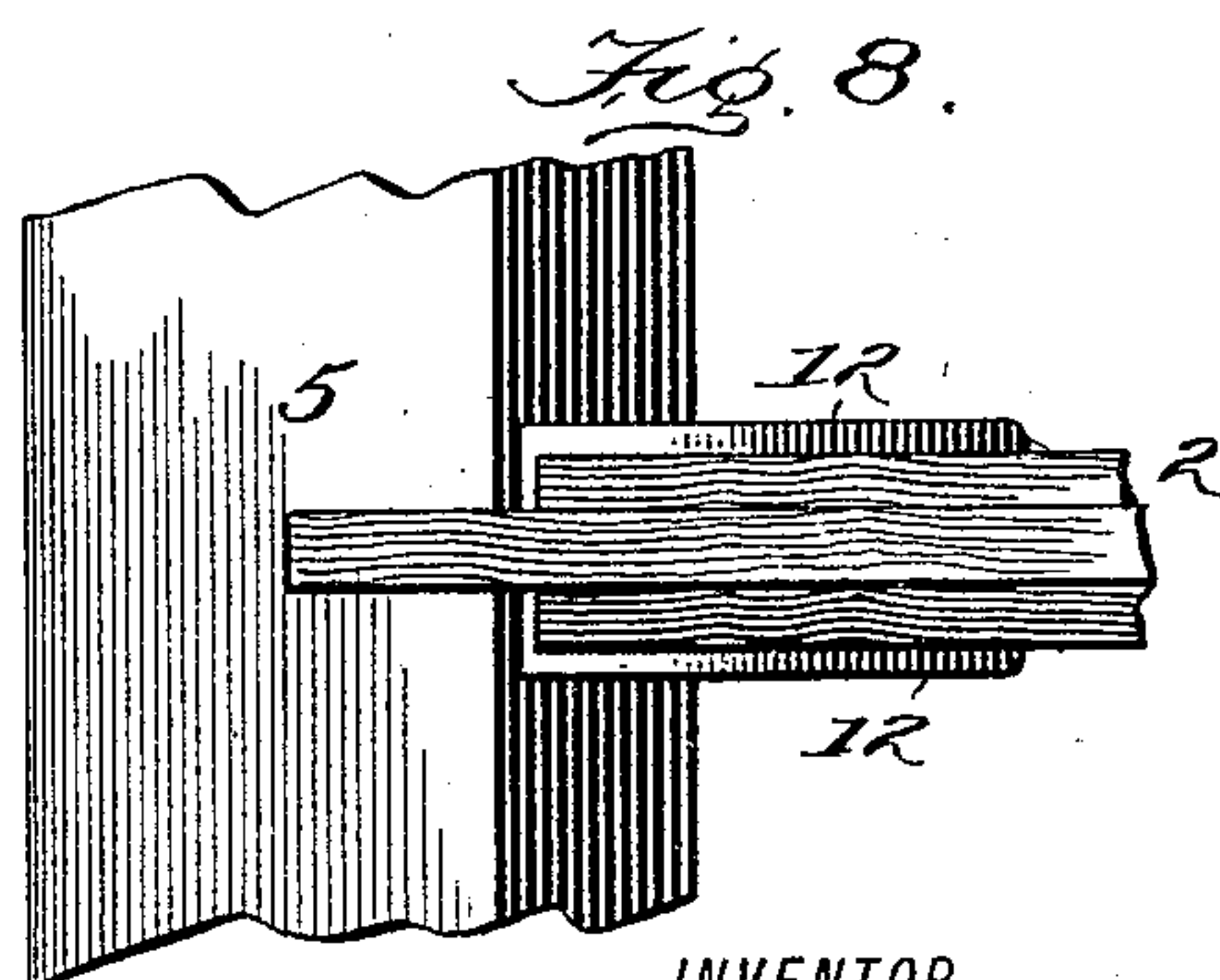
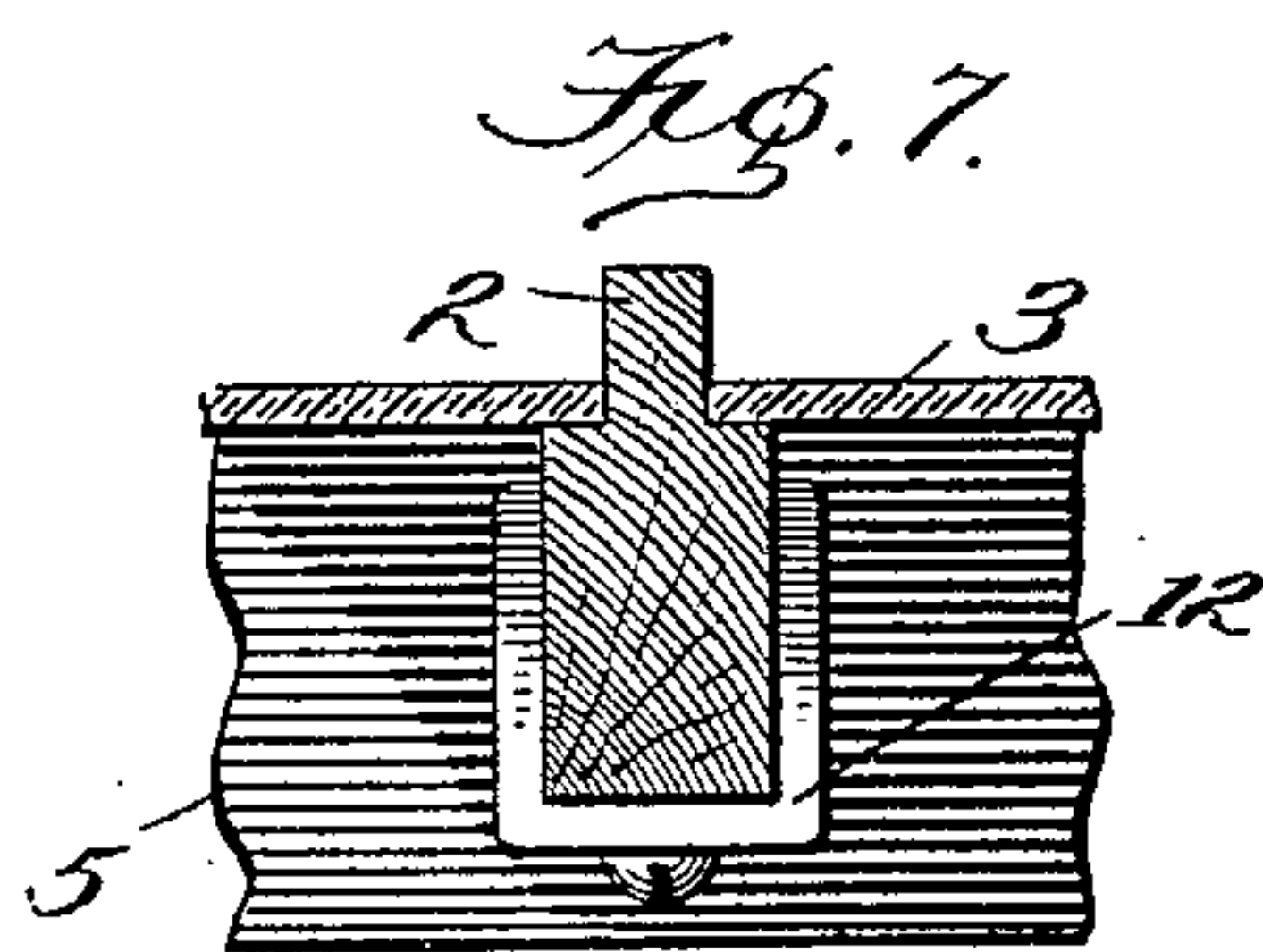
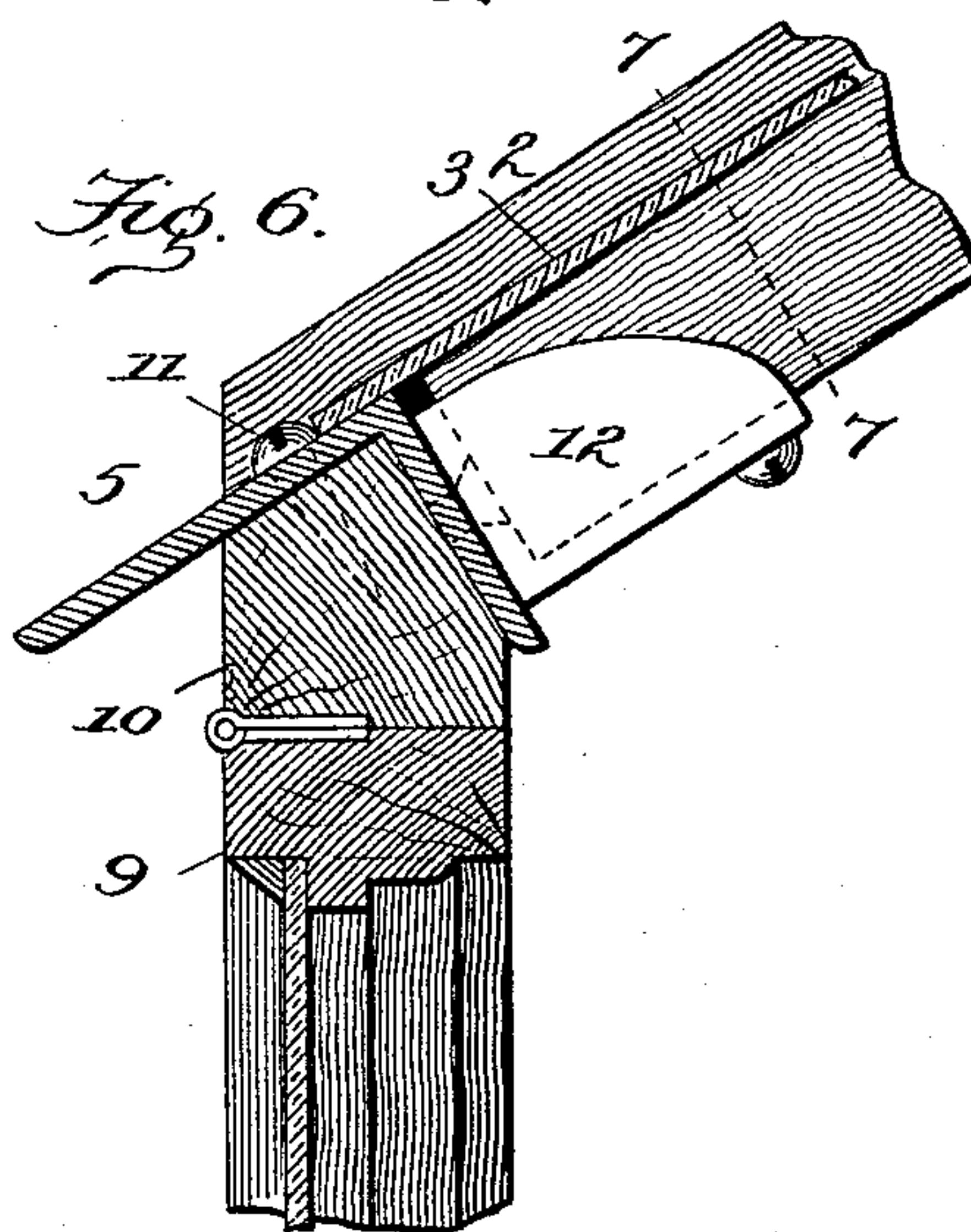
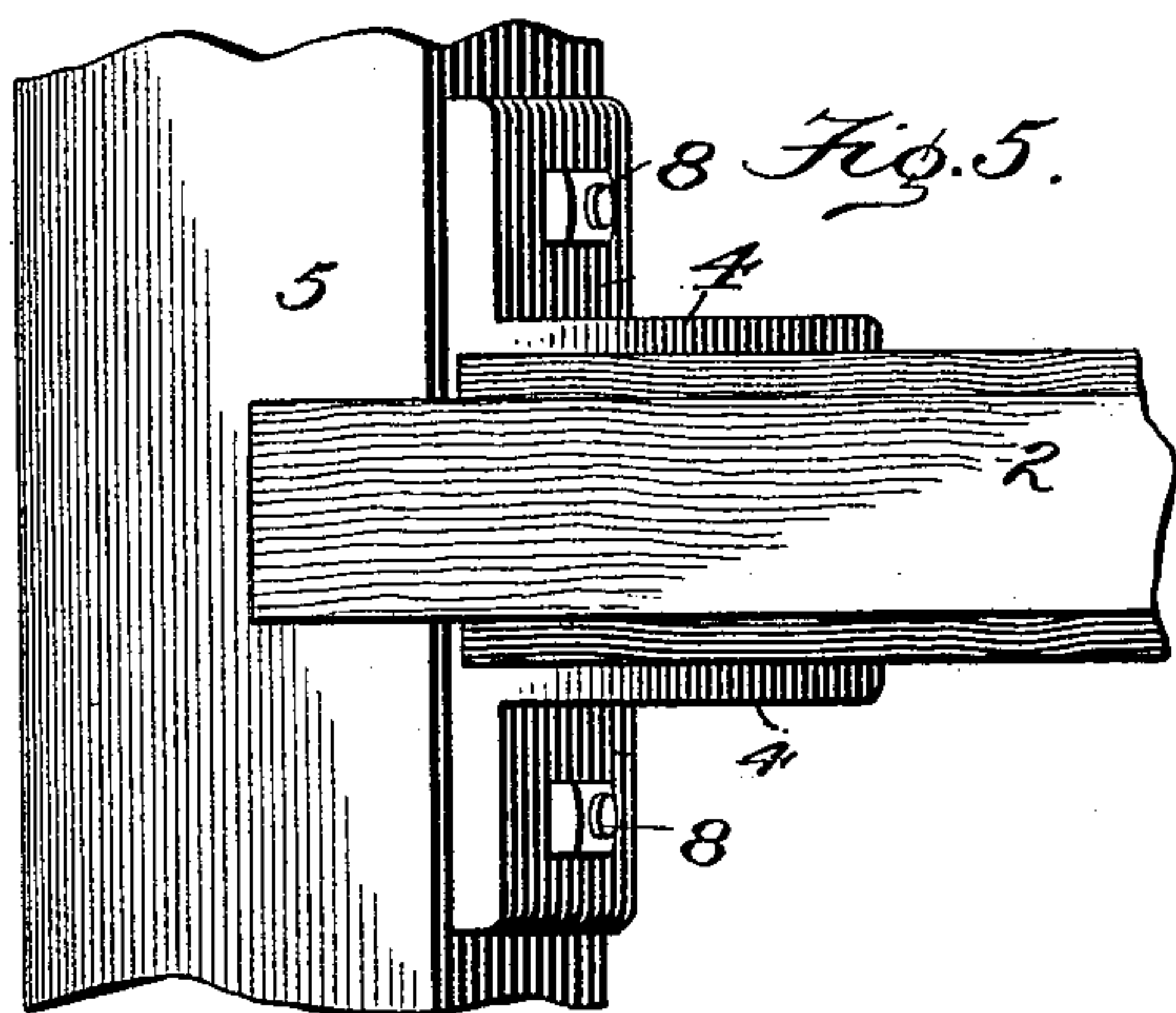
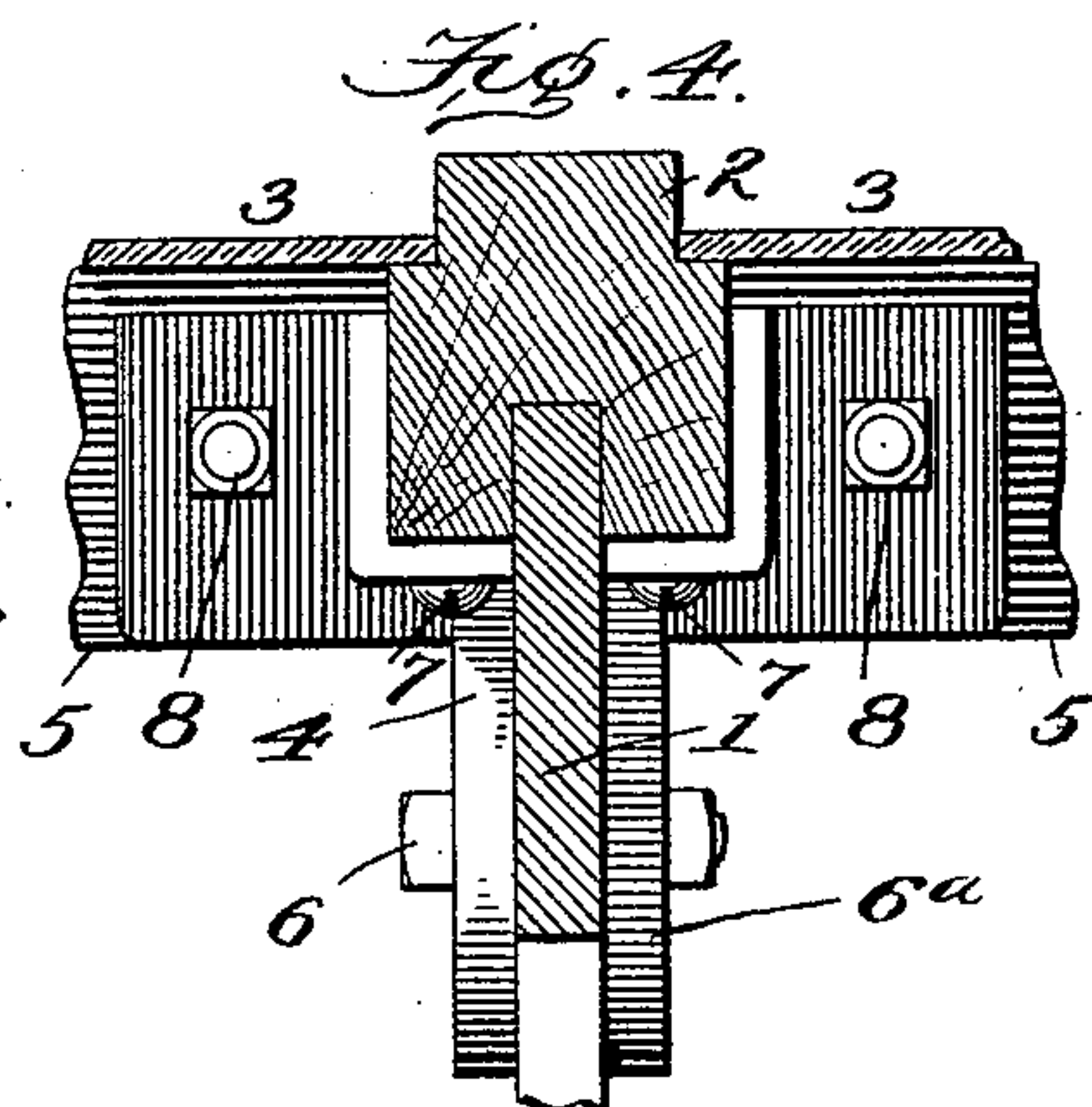
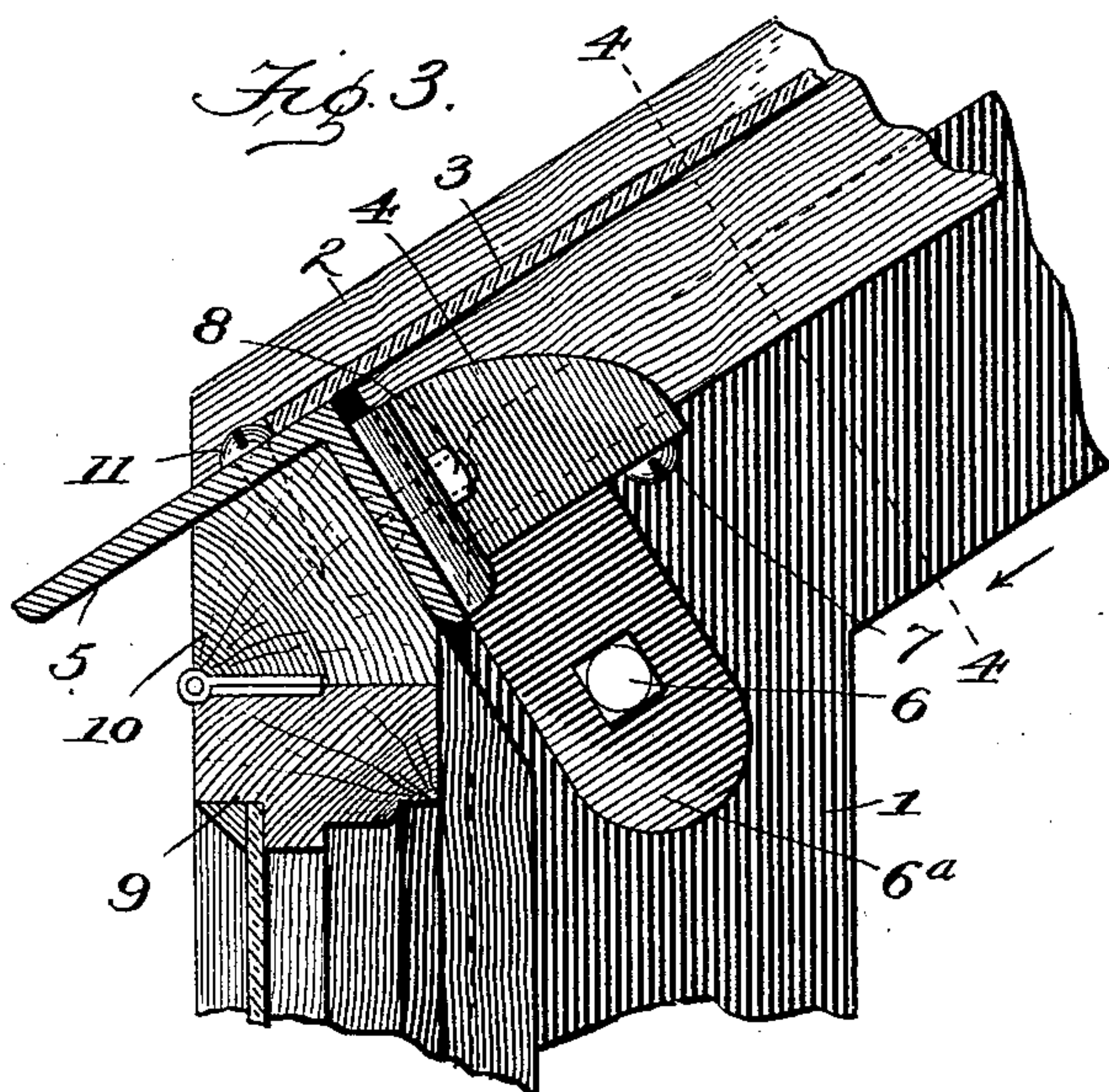
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3 Sheets—Sheet 2.

W. A. BURNHAM.
METAL EAVES.

No. 583,247.

Patented May 25, 1897.



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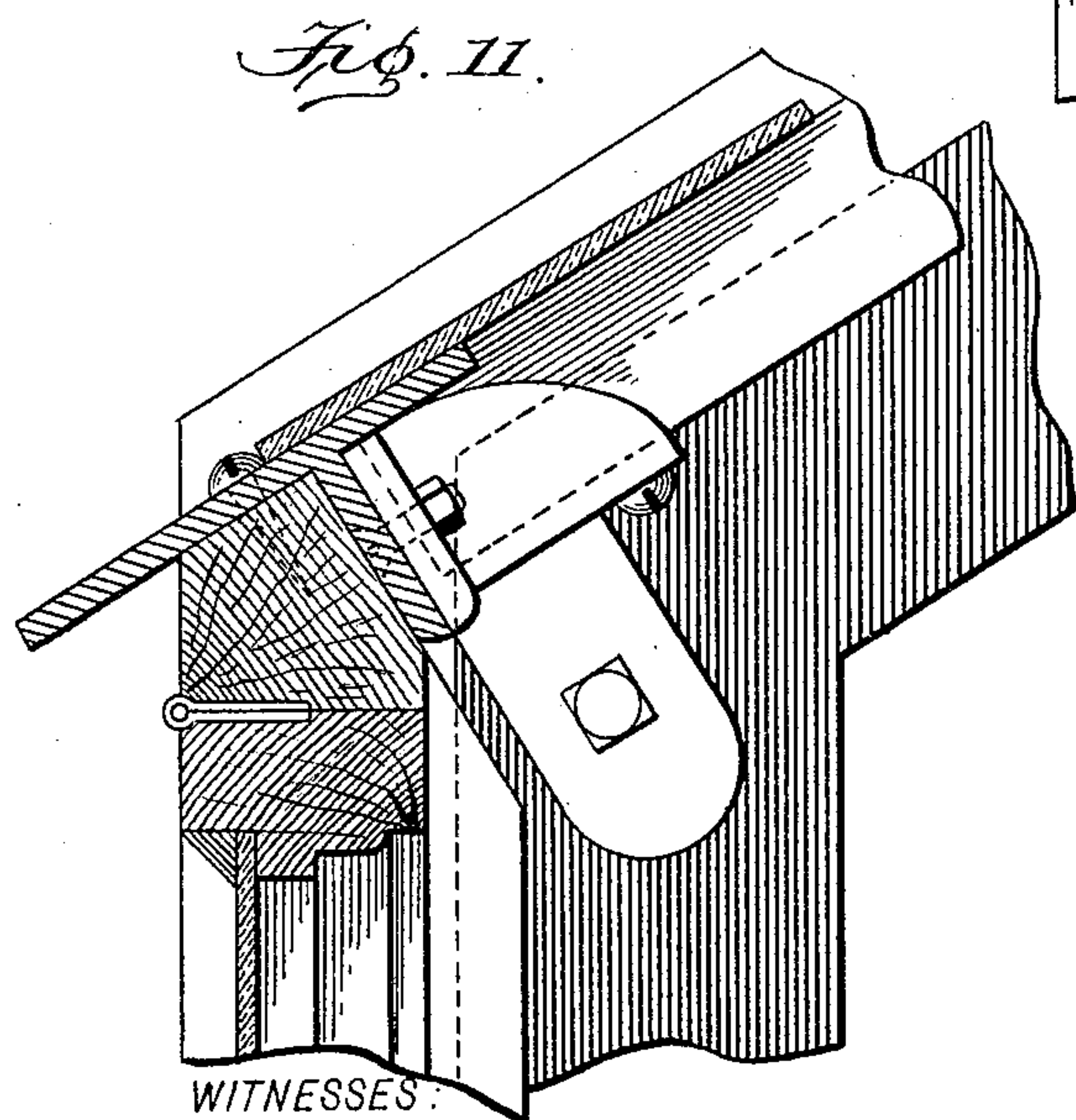
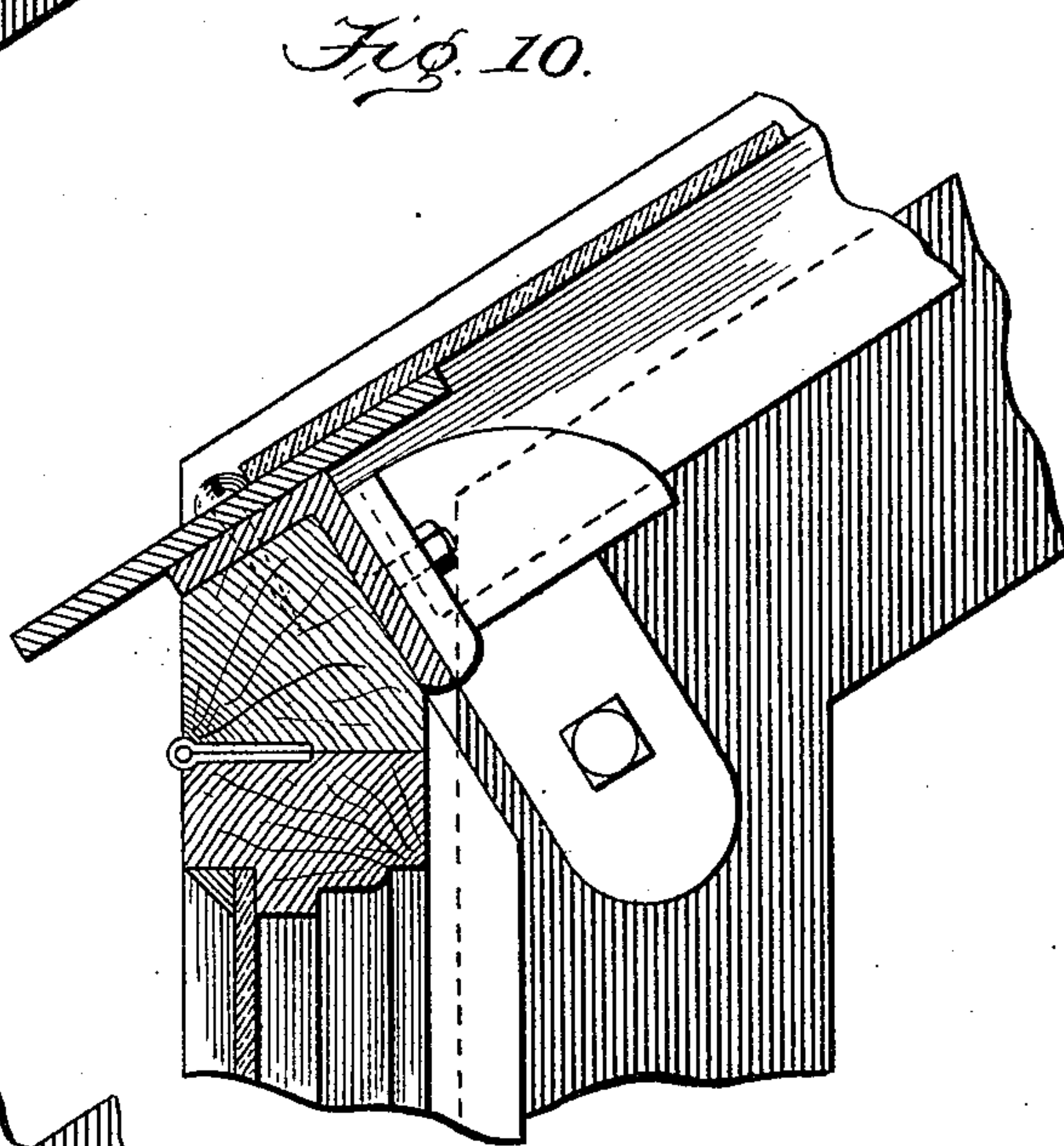
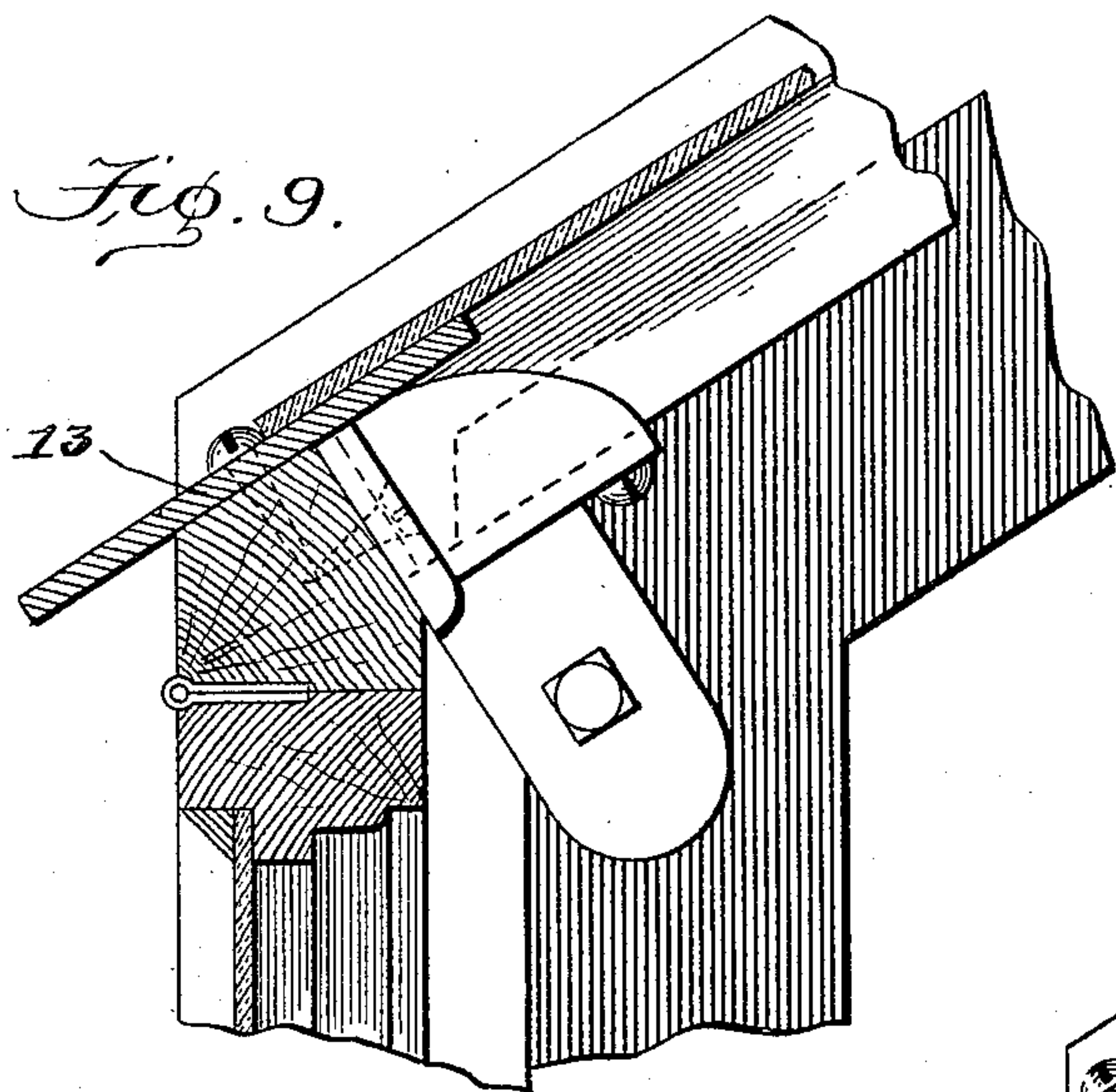
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8 Sheets—Sheet 3.

W. A. BURNHAM.
METAL EAVES.

No. 583,247.

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UNITED STATES PATENT OFFICE.

WILLIAM ADDISON BURNHAM, OF IRVINGTON, NEW YORK.

METAL EAVE.

SPECIFICATION forming part of Letters Patent No. 583,247, dated May 25, 1897.

Application filed December 11, 1896. Serial No. 615,354. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ADDISON BURNHAM, a citizen of the United States, residing at Irvington, in the county of Westchester and State of New York, have invented a certain new and useful Metal Eave, of which the following is a specification.

My invention relates to an improved construction of eave adapted more especially for use on horticultural buildings, though it may be used on all classes of buildings where such a construction is found advantageous; and my objects are to produce a simple and effective construction and to avoid the use of wood plates and gutters at that part of the structure which during the winter allows snow and ice to accumulate in or on them and thus prevents the perfect drain from the glass and the obtaining of an even temperature and sufficient light in the building.

I accomplish the above objects by the use of an overhung metal piece which is placed between the side wall and the roof and so arranged that a portion of the metal is within the building so that it is affected by the temperature thereof. The heat of this part is conducted to the other part, which is outside of the building, so that it becomes heated and thus prevents any formation of icicles and the accumulation of snow.

A further object of my invention is to provide a simple and effective construction for securing the several parts in a horticultural building at the junction of a rafter and the side wall, to serve as a means to carry the roof between rafters with the least possible obstruction of light, as will be hereinafter more fully described.

In order that my invention may be fully understood, I will proceed to describe the same with reference to the accompanying drawings, in which—

Figure 1 is a transverse section (in part) of a whole structure and showing my preferred form of eave construction. Fig. 2 is a plan (in part) of a portion of the eave. Fig. 3 is an enlarged detail section at the eave. Fig. 4 is a detail section taken on the line 4 4, Fig. 3, and looking in the direction of the arrow. Fig. 5 is a detail plan of the construction shown in Figs. 3 and 4. Fig. 6 is a detail section taken on the line 6 6, Fig. 2.

Fig. 7 is a detail section taken on the line 7 7, Fig. 6. Fig. 8 is a detail plan of the construction shown in Figs. 6 and 7; and Figs. 9, 10, and 11 are views similar to Fig. 3, but showing modifications of the eave construction.

In the said drawings, 1 represents one of the iron rafters used in the construction of the building. It is secured at its ends to the sill, as shown, and held in its proper position by purlins and the different parts used at the ridge of the building, so as to form a support for the details.

2 represents the sash-bar, on which the glass 3 is supported, and 4 the sash-bar clasp for securing the bar. The clasp 4 is of a particular construction specially adapted for this purpose, by which I am enabled to join and support most of the parts used in the construction at that point and especially the metal eave. The clasp is secured to the rafter 1 by the bolts 6, which pass through the flange 6^a of the clasp, and the sash-bar 2 is held in place in the pocket formed for it in the clasp by the screw 7.

The eave-plate 5 in my preferred construction (shown in Figs. 1, 4, and 8) is formed of angle-iron and is secured to and carried by the clasp 4 by means of the bolt 8, and the eave also serves as a plate on which the glass is supported. This angle-iron extends the whole length of the building and is arranged as shown—that is, with one of the sides overhanging the side or sash 9 and the side wall and forming practically a continuation of the plane of the glass 3 and the roof, and with its other side within the building, so as to be affected by the temperature in the interior of the construction. It is held in place along its length by the construction shown in Figs. 1, 3, 4, and 5, which occur at each rafter.

It will be understood that by the use of the term "angle-iron" I mean to include not only the bar which in cross-section forms two sides of a triangle, but all of the other shapes, such as I and T iron, channel-iron, &c.

10 represents a fascia-strip having the bevel parts to allow for a compact construction at that point and in a measure to serve as a brace for the angle-iron. It is adapted to have the sash secured to it in any desired manner and to serve as a bed for the screw

11, which is placed and passed through the angle-iron in the manner shown, so as to hold the glass on the sash-bar.

In Figs. 6, 7, and 8 I show a clasp 12, covered by my Patent No. 535,049, under date of March 5, 1895, secured to the eave-plate for supporting the sash-bars intermediate the rafters, Fig. 2. This clasp is secured in substantially the same manner as the clasps shown in Figs. 4 to 7, and the construction for holding the glass on the sash-bar and the facia-strip in place is also substantially the same. It will be understood that the arrangement just described is employed between the rafters in all the forms of the eave construction.

In Figs. 9, 10, and 11 I have shown several modifications in the construction of the eave.

In Fig. 9 I employ a flat piece 13 of metal, which is placed on the facia-strip. It may extend in a single piece the whole length of the building, or, if desired, it can be put on in sections between the rafters or sash-bars. The glass is held in the same manner, and the same forms of clamps are used at the rafters and sash-bars as shown in the preceding figures.

In Fig. 10 I have employed the same form of construction as shown in Fig. 3 with the addition of the metal strip.

In Fig. 11 I have shown the eave in the form of T-iron, which is arranged on the facia-strip in precisely the same manner as the angle-iron in Fig. 3. It will be observed that the same simple and effective arrangement of parts is obtained in this form as in the others.

From the above description of the several forms of construction it will be seen that I have devised a simple and compact arrangement at that part of a horticultural building which will enable a perfect drain to be had at all times from a glass roof, and to avoid the evil results attendant upon snow or ice accumulation in the gutters or on the plate, as in the forms now in use, and also by the doing away of the gutters and their incident construction and the employment of the particular means much more light is obtained and an extremely simple and effective means of supporting the roof is obtained.

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

1. A metal eave consisting of an angle-iron located between the side wall and the roof, and adapted to serve as a support for the edge of the roof and to have the side wall secured thereto, and said angle-iron arranged to have one member in substantially the same plane

as the plane of the roof with the remainder thereof in the interior of the building so as to be affected by the temperature therein, substantially as shown and described.

2. In a horticultural or other building, the combination of the rafters, the sash-bar clasp carried thereby, the sash-bar secured to said clasp and carrying the glass, and the metal eave secured to the sash-bar clasp and arranged to have one of its sides or members form a continuing plane of the plane of the glass, substantially as shown and described.

3. In a horticultural or other building, the combination of the rafters, the sash-bar clasps carried thereby, the sash-bars and the glass, the facia strip or piece to which the side wall is connected, and the metal eave of angle-iron resting on said strip or piece and secured to the rafters, and means for holding the glass in place on the metal eave, substantially as shown and described.

4. In a horticultural or other building, the combination of the rafters for supporting the roof, the angle-iron, and the clasps for securing the angle-iron to the rafters, said angle-iron being so arranged as to have one portion thereof within the building and another portion outside the building and to serve as a drain for the roof, substantially as shown and described.

5. In a horticultural or other building, the combination of the rafters, the angle-iron secured thereto and serving as a support for the sash-bars, and adapted to have the facia-strip secured thereto, and said angle-iron serving as a drain for the roof, substantially as shown and described.

6. In a horticultural or other building, the combination of the rafters, the angle-iron, the clasps formed with a pocket, for securing the angle-iron to the rafters, the sash-bars supporting the glass, fitting in the pockets of the clasps, and suitable means carried by the angle-iron for holding the edge of the glass thereon, substantially as shown and described.

7. In a horticultural or other building, the combination of the rafters for supporting the roof, the angle-iron, the clasps for securing the angle-iron to the rafters so as to have one portion of the angle-iron within the building and the other portion form a continuing plane of the roof, and the facia-strip to which the side wall of the building is secured connected with said angle-iron, substantially as shown and described.

WILLIAM ADDISON BURNHAM.

Witnesses:

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FRED. T. OAKES.