

No. 858,547.

PATENTED JULY 2, 1907.

G. S. THORNE.
WINDOW CORNER POST.
APPLICATION FILED MAR. 20, 1907.

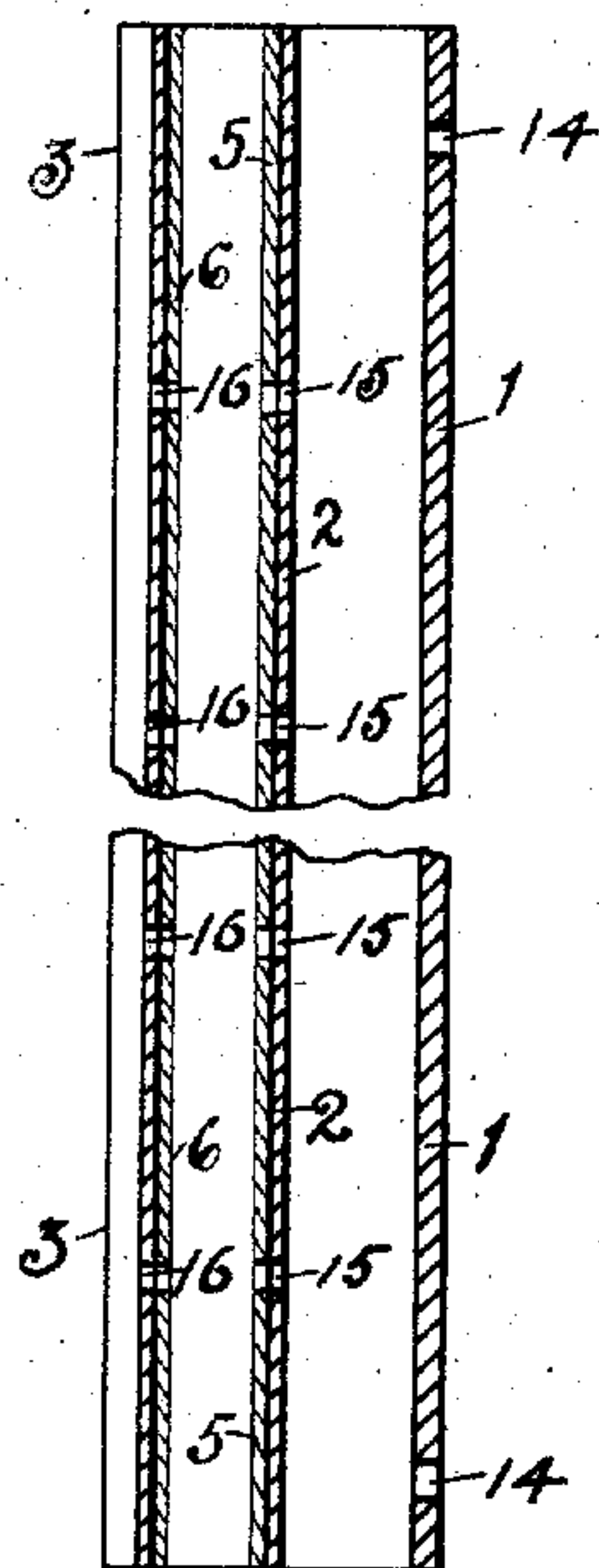
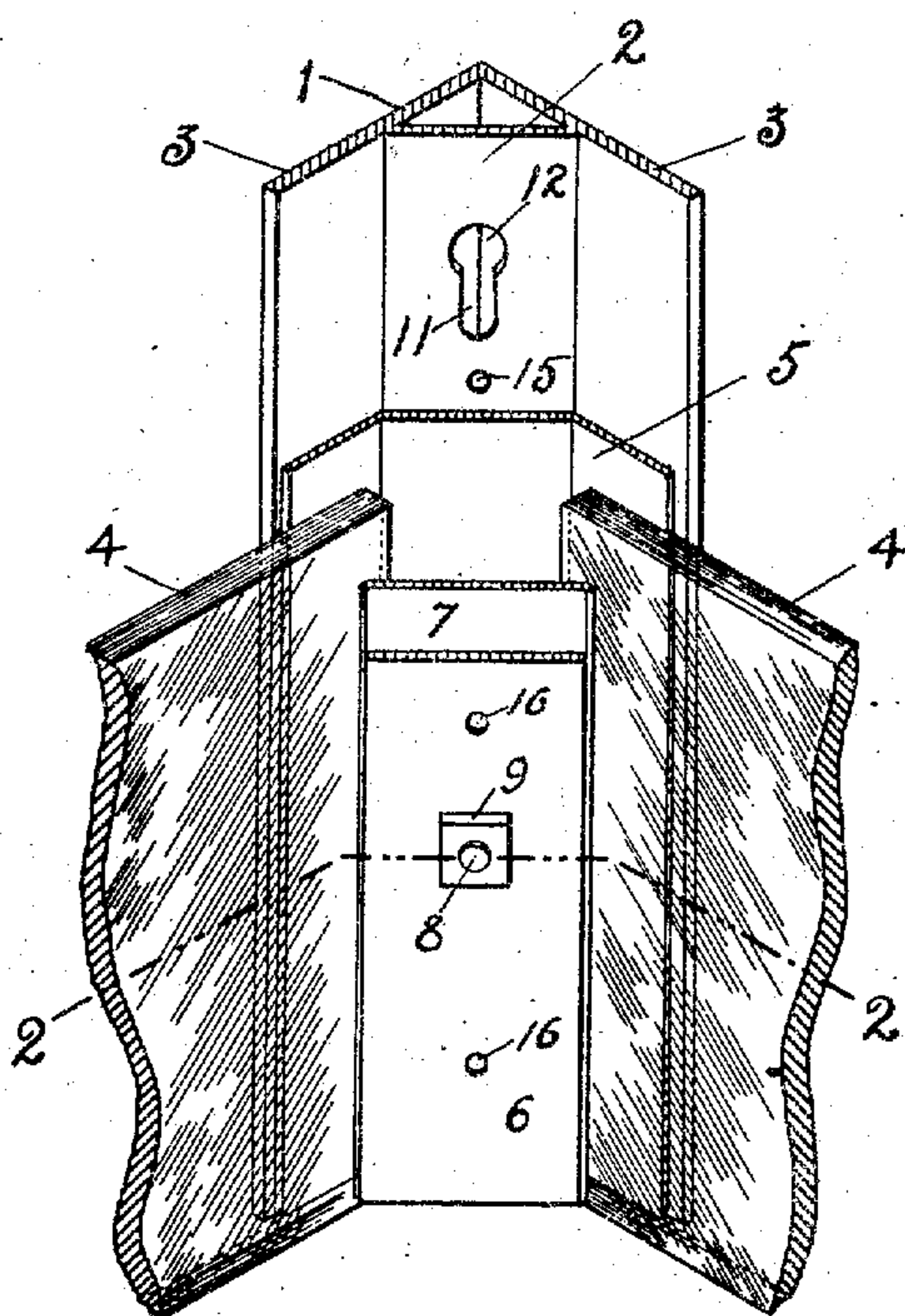


FIG. 4.

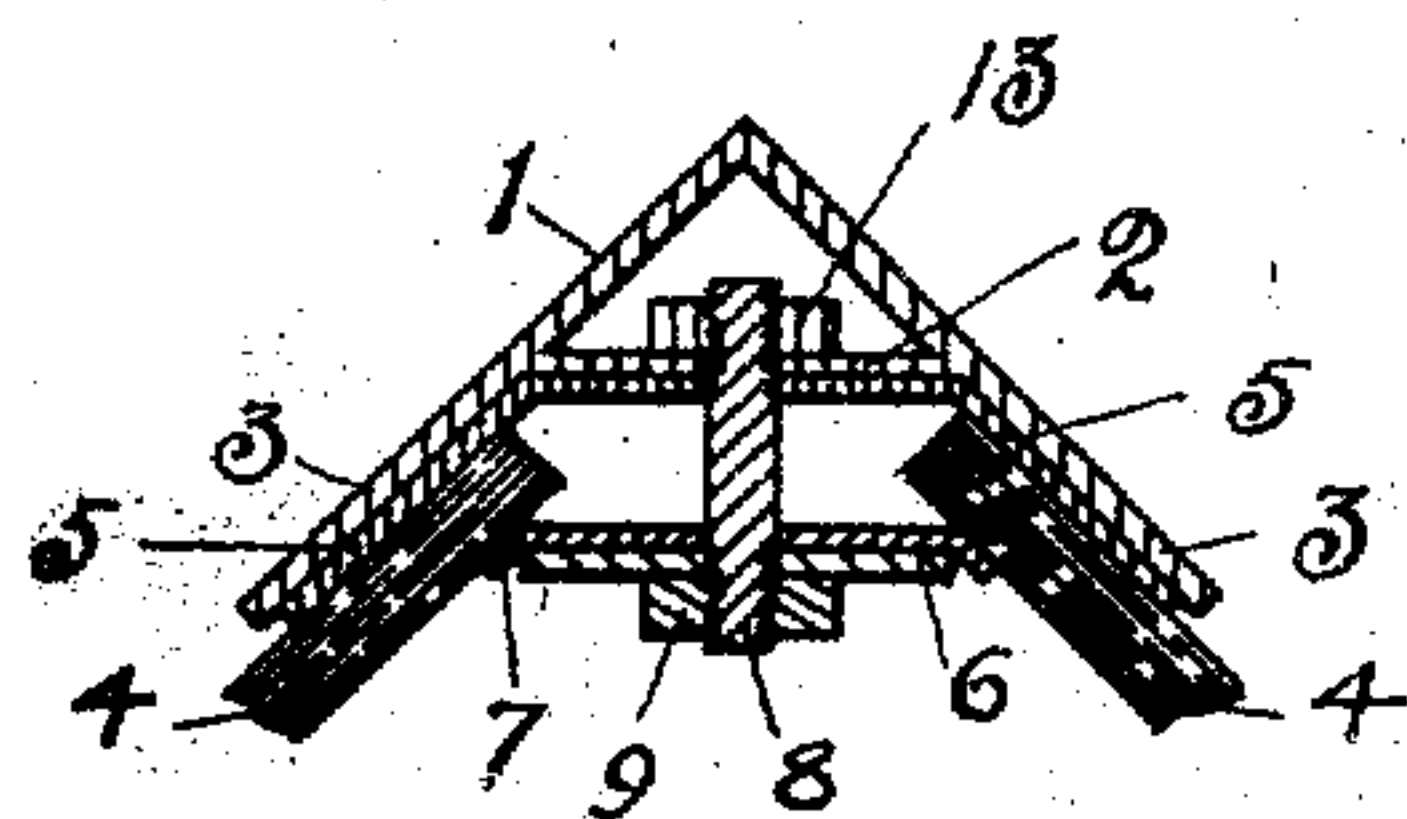


FIG. 3.

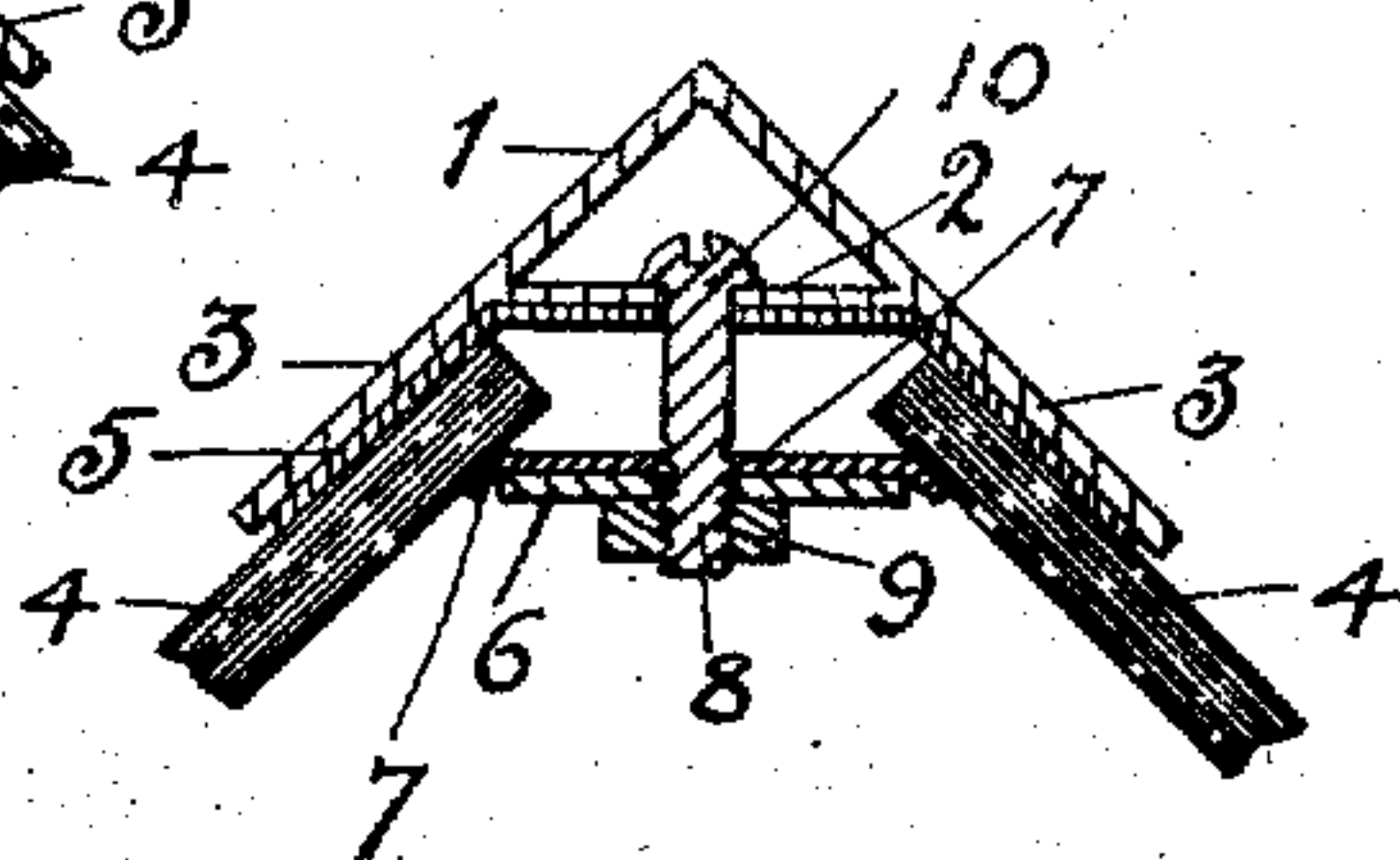


FIG. 2.

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UNITED STATES PATENT OFFICE.

CHARLES S. THORNE, OF TROY, NEW YORK, ASSIGNOR TO THE THORNE HOLD-FAST METAL BAR COMPANY, A CORPORATION OF NEW YORK.

WINDOW CORNER-POST.

No. 858,547.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed March 20, 1907. Serial No. 363,511.

To all whom it may concern:

Be it known that I, CHARLES S. THORNE, a citizen of the United States, residing at Troy, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Window Corner-Posts, of which the following is a specification.

The invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the reference characters marked thereon, which form a part of this specification.

Similar characters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a view in perspective of a window corner-post embodying my invention. Fig. 2 is a horizontal cross-section of the same taken on the broken line 2-2 in Fig. 1. Fig. 3 is a similar view of a modified form of my invention. Fig. 4 is a central, vertical, longitudinal section of the construction shown in Figs. 1 and 2 with the glass removed.

The principal object of my invention is to provide simple, durable and efficient means for connecting together and supporting the neighboring ends of two plates of glass.

Other objects will appear in connection with the following description.

The drawings show my invention applied to a window corner-post, but it is adapted for use in various constructions wherein it is desired to connect together and support the neighboring ends of two plates of glass.

As shown in Figs. 1 and 2 of the drawings, 1, is a corner angle-bar or post formed of metal having its divergent members connected together intermediately of their ends by a brace-plate, 2, the said divergent members projecting beyond the brace-plate in the form of wings, 3, adapted to receive between them the neighboring ends of two plates, 4, of glass, the outer surfaces of which plates are adapted to rest flatly upon the respective inner surfaces of said wings, 3, or an interposed packing sheet 5. As thus supported, said glass plates, 4, are adapted to be engaged on their inner surfaces, near their outer edges, by the clamp-plate, 6, or a packing-sheet, 7, interposed between said glass and clamp-plate; and said clamp-plate, 6, and the corner-bar are adapted to be drawn toward each other to securely clamp between them the neighboring ends of the two glass plates by means of a screw-connection in the form of a screw-bolt, 8, provided with a nut, 9, adapted to engage the inner side of the clamp-plate, 6, and having a head, 10, adapted to engage the outer side of the brace-plate, 2, said bolt passing through apertures in said brace-plate and clamp-plate. The clamp-plate, 6, may be made of any desired material, preferably metal.

The bolt-aperture in the brace-plate, 2, is shown in Fig. 1, in the form of a vertical slot, 11, of substantially the width of the screw-bolt, which slot is enlarged at its upper end at, 12, to permit the free passage thereof through of the head, 10, of the screw-bolt. The head of the screw-bolt is inserted through the enlarged aperture, 12, and then the bolt is slipped down into the narrow slot 11. The brace-plate, 2, may be connected with the divergent arms of the angle-plate, 1, in any known manner to form an integral or substantially integral or rigid construction. The brace-plate, 2, and the clamp-plate, 6, may be made to extend throughout the whole or any desired part of the length of the angle post or bar. The packing sheets, 5, and 7, may be omitted, if desired; but are preferably employed to make tight-joints and to relieve the glass from shocks.

As shown in Fig. 3, a double ended screw, 14, is employed one end of which is inserted through an opening formed to receive it in the brace-plate, 2, into a backing-nut, 13, located within the hollow portion of the corner-bar and preferably soldered to the brace-plate. The other end of the screw, 14, projects through the clamp-plate and is provided with a nut adapted to bear upon said plate. The relative angular arrangement of the glass-plate-supporting wings, 3, will, of course, be made to correspond with the angular arrangement of the two plates of glass to be connected together. The hollow or braced form of angle-bar or post shown enables me to secure great strength with minimum weight. The construction shown also permits of expansion and contraction of the glass plates, while, at the same time, said plates are rigidly and firmly supported in the desired position.

In the preferred form of my construction I provide the corner-post near its top and bottom with apertures, 14, in the outer wall of its hollow portion, and the brace-plate, 2, with a number of apertures, 15, and the clamp-plate, 6, with a number of apertures 16. Provision is thus made for circulation of air through the hollow portion of the corner-post, and also through the space inclosed between the corner-post, clamp-plate and plates of glass. When the packing sheets, 5 and 7, are employed the apertures, 15 and 16, may be extended through said packing-sheets, as shown in Fig. 4.

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

1. The combination with an angle-bar having divergent members connected together by a brace-plate and projecting beyond said brace-plate to form supports for the neighboring ends of two plates of glass; of a clamp-plate adapted to engage said plates of glass on their inner surfaces; and means for securing together said clamp-plate and angle-bar.

2. The combination with an angle-bar having divergent members connected together by a brace-plate and project-

ing beyond said brace plate to form supports for the neighboring ends of two plates of glass; of a clamp-plate adapted to engage said plates of glass on their inner surfaces; and screw mechanism connecting together said clamp-plate and said brace-plate.

3. The combination with a hollow angle-bar having divergent members connected together by and projecting beyond a brace-plate; of a clamp-plate; screw mechanism for forcing said clamp-plate toward said angle-bar; a pair of glass plates having their neighboring ends interposed between said clamp-plate and the respective projecting portions of the members of said bar; a packing sheet interposed between the outer side of said glass plates and said angle-bar; and a packing sheet interposed between the inner side of said glass plates and said clamp-plate.

4. The combination with a bar having a metal portion with inner and outer walls and, projecting therefrom, wings adapted to support the outer sides of the neighboring ends of a pair of glass plates; of a clamp-plate adapted to engage the inner side of said ends of said glass plates; and screw mechanism connecting said clamp-plate with the inner wall of said hollow bar.

5. The combination with an angle-bar having divergent members connected together by a brace-plate and projecting beyond said brace-plate to form supports for the neighboring ends of two plates of glass; of a clamp-plate adapted to inclose said plates of glass on their inner surfaces; and a connection between said brace-plate and clamp-plate detachably connected with said brace-plate.

6. The combination with a hollow-bar having projecting wings adapted to support the outer sides of the neighbor-

ing ends of a pair of glass plates and provided in its walls with ventilating apertures communicating with the hollow interior of the bar; of a clamp-plate adapted to engage the inner side of said ends of said glass-plates; and means for connecting together said clamp-plate and hollow-bar.

7. The combination with an angle-bar having divergent members connected together by a brace-plate and projecting beyond said brace-plate to form supports for the neighboring ends of two plates of glass, and provided with apertures in its body-wall and in said brace-plate communicating with the space therebetween; of a clamp-plate adapted to engage said plates of glass on their inner surfaces; and means for connecting together said clamp-plate and brace-plate.

8. The combination with an angle-bar having divergent members connected together by a brace-plate and projecting beyond said brace-plate to form supports for the neighboring ends of two plates of glass, and provided with apertures in its body-wall and in said brace-plate communicating with the space therebetween; of a clamp-plate adapted to engage said plates of glass on their inner surfaces and provided with apertures communicating with the space between said clamp-plate and said brace-plate; and means for connecting together said clamp-plate and brace-plate.

In testimony whereof, I have hereunto set my hand this 18th day of March, 1907.

CHAS. S. THORNE.

Witnesses:

J. DONSBACH,

E. M. O'REILLY.