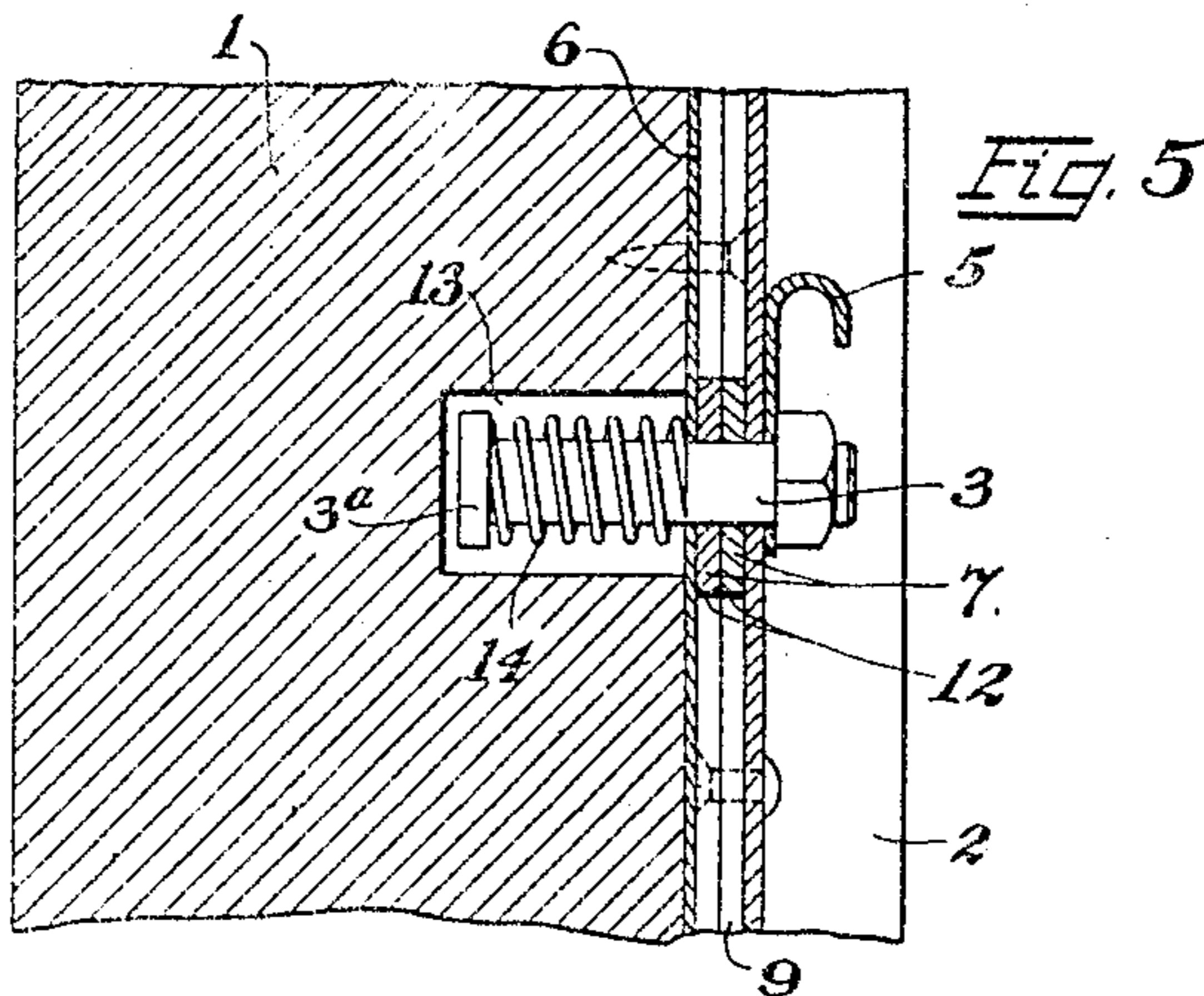
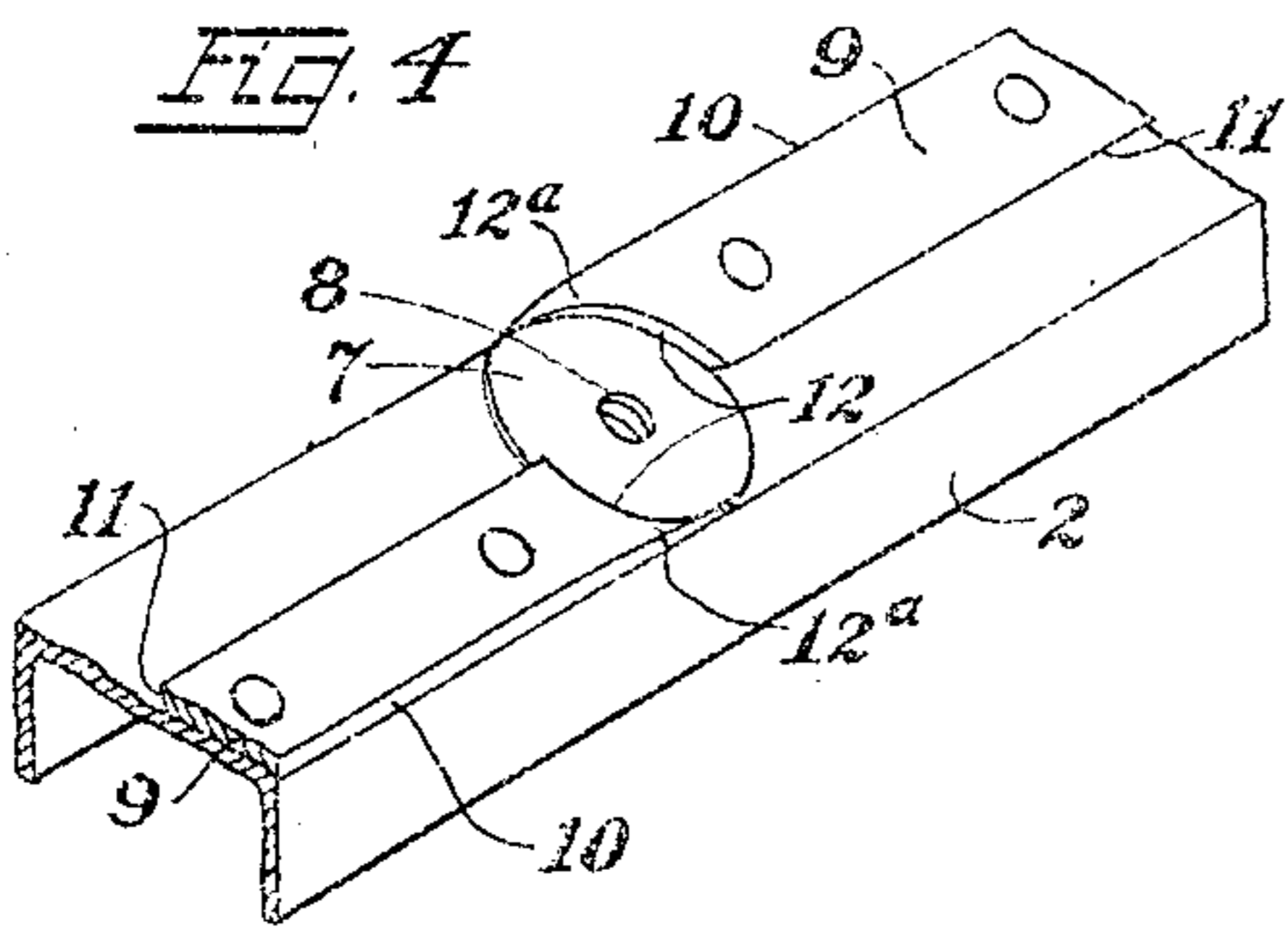
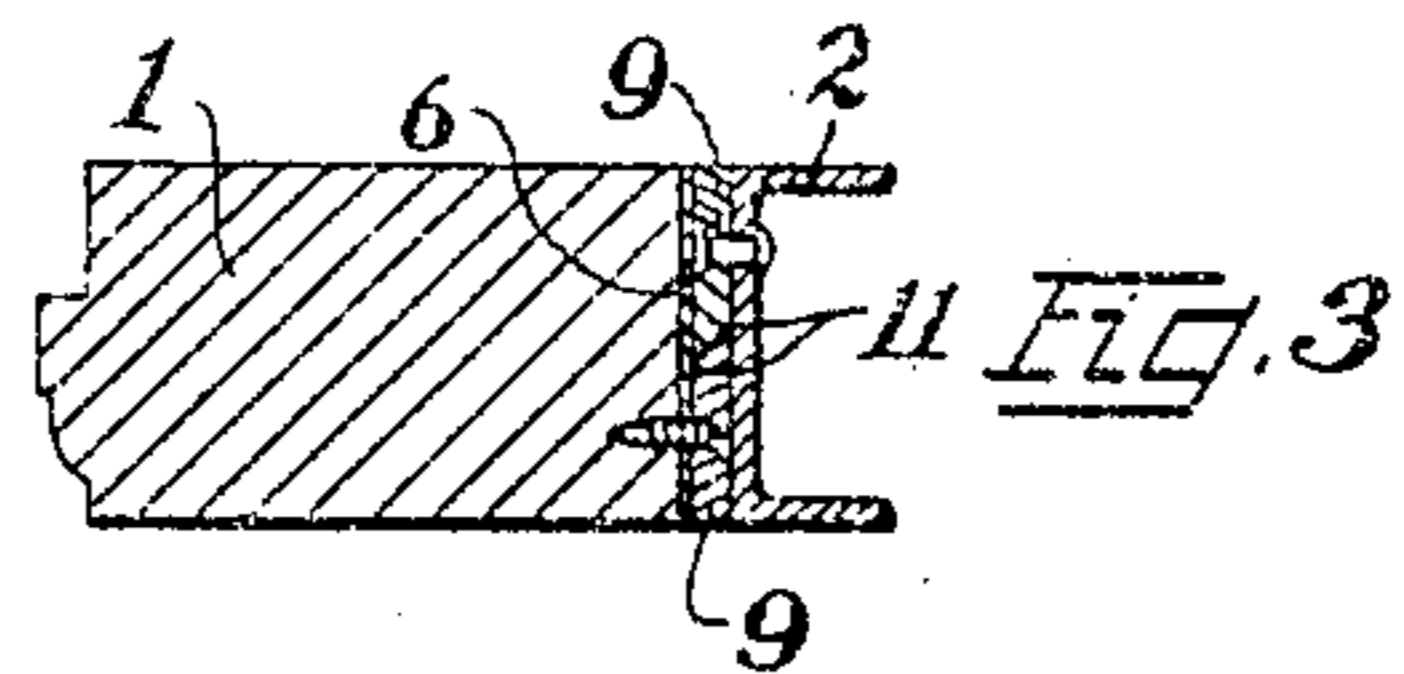
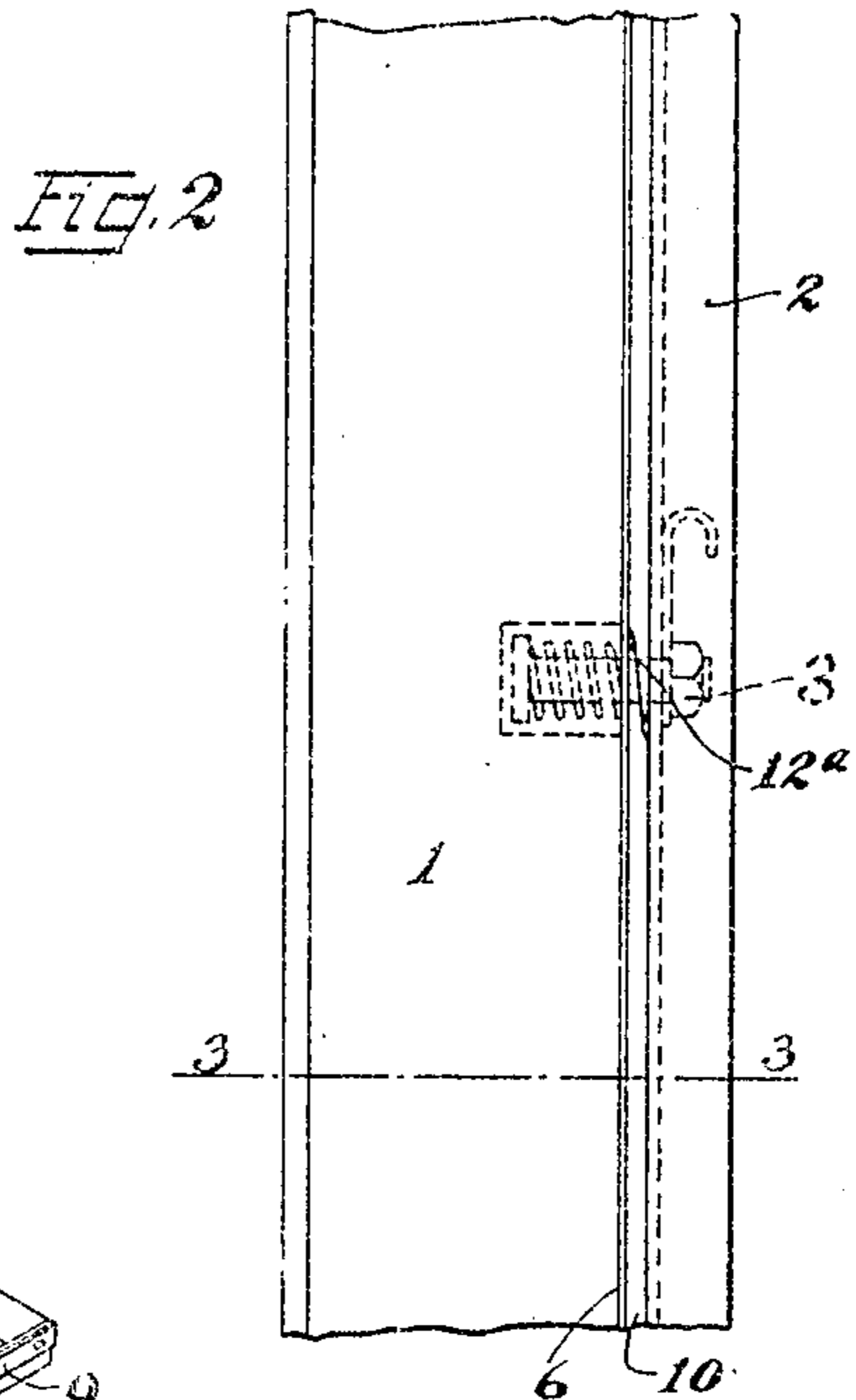
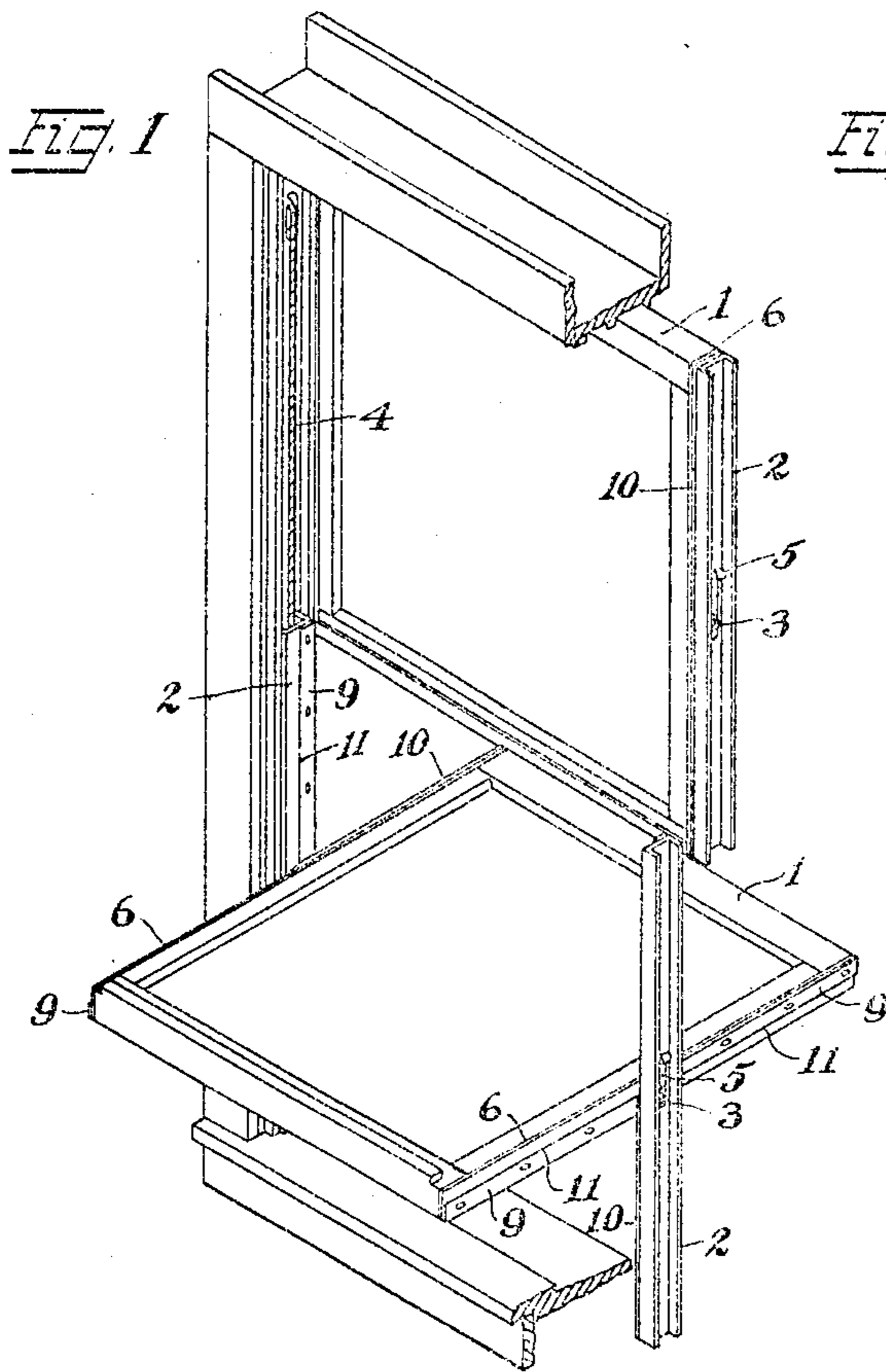


No. 888,215.

PATENTED MAY 19, 1908.

G. B. & G. H. BABCOCK.
HORIZONTALLY PIVOTED WINDOW.
APPLICATION FILED OCT. 23, 1907.



Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE B. BABCOCK AND GEORGE H. BABCOCK, OF CLEVELAND, OHIO.

HORIZONTALLY-PIVOTED WINDOW.

No. 888,215.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed October 23, 1907. Serial No. 398,685.

To all whom it may concern:

Be it known that we, GEORGE B. BABCOCK and GEORGE H. BABCOCK, citizens of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Horizontally-Pivoted Windows, of which the following is a specification.

Our invention relates to improvements in horizontally-pivoted windows, and the primary object of the invention is to produce a generally-improved mechanism of this class which will be exceedingly simple in construction, cheap of manufacture, efficient in use, and much better adapted to its intended purposes than any other device of the same class with which we are acquainted.

Another object of the invention is to provide means for horizontally-pivoting the sash in the vertically-arranged sash-sustaining-members whereby the sash may not only be readily moved from a vertical to a horizontal position and securely held in any position, intermediate said positions, to which it may be moved or adjusted, but may be entirely revolved on its pivots, and will, when returned to its vertical or initial position, engage and interlock with the said sash-sustaining-members to maintain the same in close proximity to the contiguous sides of the sash thereby preventing the ends of said sash-sustaining-members from springing outwardly or laterally away from the adjacent sides of the sash.

A further object is to improve the construction of the vertically-arranged sash-sustaining-members and the contiguous sides of the sash whereby the same will be best adapted to cut off any draft or circulation of air between these parts.

A still further object is to provide a generally-improved simply constructed friction-pivot, for windows of this class, of great strength and durability, adapted not only to frictionally-hold the sash in any position, out of its vertical or initial position, to which it may be adjusted, but which will impart to the sash-sustaining-members a minimum lateral movement in the ways of the sash frame when so moved.

With the above mentioned objects in view, the invention consists in the novel construction, arrangement, and combination of parts, hereinafter described, illustrated in the ac-

companying drawings, and particularly pointed out in the appended claims.

Referring now to the drawings, forming a part of this specification, Figure 1, is a perspective view of a horizontally-pivoted window embodying the invention, a portion of the side walls of the window-frame being broken away in order that its construction may be more readily perceived. Fig. 2, a detail view of the pivoted portion of one of the sash-sustaining-members and the contiguous or attached side of the sash-frame. Fig. 3, a cross sectional view taken through line, 3,—3, of Fig. 2. Fig. 4, a detail perspective view of the pivoted friction-plate or washer portion of one of the interlocking-plates, shown attached to the web of one of the channel-bar sash-sustaining-members. Fig. 5, a detail longitudinal sectional view of the pivoted portion of one side of the sash and one of the sash-sustaining-members.

Similar characters of reference designate like parts throughout all the figures of the drawings.

The sash 1, is horizontally-pivoted and secured to a pair of vertically-arranged sash-sustaining-members 2, by means of spring-resisted pivot-hanger-bolts 3, and as hereinafter more fully described. The sash-sustaining-members 2, are slidably-mounted in the ways of the sash frame in the usual manner and connected to the sash-cord 4, by means of hooked-members 5, engaged by said pivot-hanger-bolts 3. The vertically-arranged sash-sustaining-members 2, are, preferably, formed of channel iron, and, when wooden sash-frames are used, the sides of the sash are preferably provided with side supporting-strips or plates 6, to which the sash interlocking-plates, hereinafter described, are attached.

The sides of the sash, when the latter is in its vertical or initial position, are adapted to interlock with the contiguous or inner sides of the sash-sustaining-members 2, by means of interlocking-plates, each comprising a substantially circular friction-plate or washer portion 7, having pivot-openings 8 (see Fig. 4) and oppositely and diagonally-disposed arms 9, secured to the sides of the sash and the webs of the sash-sustaining-members by means of screws or rivets, or in some other suitable and convenient manner, said arms 9, each, preferably, extending to the median

line of the sash and sash-sustaining-members, the outer or tangential edges 10, thereof being flush with the faces of the sash and sash-sustaining-members and the inner or median edges 11, being splayed or beveled forming oppositely-disposed over-hanging edges adapted to interlock with the similarly-shaped median edges of the arms of the contiguous plate.

10 It will be observed that the friction-plate or washer portions, preferably midway of the ends of the arms 9, are counter-sunk at the base of the arms 9, forming peripheral curved edges 12, of gradually increasing depth, and
15 that the base portions of the arms along said curved edges are beveled from the edges of the washer portions 7, at or near the edges of the base of the outer tangential edges 10, to a point at or near the median edges 11, forming
20 oppositely-disposed beveled or inclined peripheral shoulder portions 12^a, adapted to frictionally cooperate and over-ride each other when the sash is moved out of its vertical position whereby to frictionally-hold
25 the sash at any position to which it may be adjusted, said parts being frictionally-held in engagement with each other by means of the spring-resisted pivot-hanger-bolts 3, mounted as now described.

30 The sash side plates 6, and the webs of the sash-sustaining-members 2, are provided with pivot-openings registering with the pivot-openings 9, of the interlocking-plates, and the pivot-hanger-bolts 3, are mounted in
35 said pivot-openings, the heads 3^a, thereof extending into recess-openings 13, in the sides of the sash-frame and taking over and impinging against one end of a coiled spring 14, carried by and surrounding the shank portions
40 of said pivot-hanger-bolts. The other or opposite ends of said coiled-springs 14, impinge against the inner side of the sash-plates 6, thereby resiliently-drawing the adjacent sash-sustaining-members toward the side of
45 the sash at all times.

When the sash is being moved from its vertical to its horizontal position, the beveled or inclined portions 12^a, at the base portions of the arms 9, along the curved edges 12,
50 will mount and frictionally-over-ride each other, and, in so doing, will force the sash-sustaining-members slightly outwardly or laterally away from the sides of the sash and against the tension of the coiled springs 14,
55 the pivot-hanger-bolts being correspondingly moved in the pivot-openings.

It will be observed that by reason of the construction shown and described, the sash may be completely revolved on its pivots
60 (the adjacent upper or lower sash, as the case may be, being moved out of its vertical position to a position similar to that shown in Fig. 1, to permit the ends of the revolving-sash to clear the same) and that a very slight
65 movement of the sash-sustaining-members

in the ways of the sash-frame is required in so doing. Furthermore, the parts are not easily broken or disarranged, their movements smooth, and the interlocking of the plates of the sash and sash-sustaining-members, when the sash is moved to its vertical position, brings and holds the contiguous sides close together, thereby preventing the passage or circulation of air between the parts.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of our invention will be readily understood.

Having thus described our invention, without having attempted to set forth all the forms in which it may be made, or all the modes of its use, we declare that what we claim and desire to secure by Letters Patent, is,—

1. A horizontally-pivoted window, comprising a sash, sash-sustaining-members secured thereto by means of pivot-hanger-bolts, and interlocking-plates secured to the sides of said sash and sash-sustaining-members, each of said plates comprising diagonally-disposed arms terminating midway of their ends in a counter-sunk disk-washer-portion and provided with shoulder portions inclined along the edges of said washer-portions from the outer to the inner edges of said arms.

2. A horizontally-pivoted window, comprising a sash, sash-sustaining-members secured thereto by means of spring-resisted pivot-hanger-bolts, and interlocking-plates interposed between and secured to the sides of said sash and sash-sustaining-members, each of said plates comprising diagonally-disposed integral arms having splayed oppositely-disposed edges interlocking at the median line of said sash and sash-sustaining-members and provided midway of their ends with a counter-sunk disk-washer-portion and oppositely-inclined shoulders along the edges of said washer-portion.

3. In a horizontally-pivoted window, in combination, a sash, sash-sustaining-members, spring-resisted pivot-hanger-bolts secured to said sash and sash-sustaining-members, a pair of interlocking-plates interposed between said sash and said sash-sustaining-members, each of said plates comprising oppositely and diagonally-disposed integral arms having inner splayed edges and provided midway of their ends with a counter-sunk friction-washer portion forming peripheral curved edges along the base portions of said arms, said base portions along said curved edges being beveled from the outer or tangential edges of said arms to said inner splayed edges.

4. In a horizontally-pivoted window, an interlocking-plate comprising arms having oppositely-disposed splayed inner edges and a counter-sunk friction-washer-portion, mid-

way of the ends of said arms, forming peripheral curved edges at the base portions of said arms, said base portions being inclined from the outer edges of said washer-portion 5 to said inner splayed edges of said arms.

5. In a horizontally-pivoted window, a sash, sash-sustaining-members, spring-resisted pivot-hanger-bolts secured to said sash and sash-sustaining-members, a pair of 10 interlocking-plates interposed between the sides of said sash and said sash-sustaining-members, each of said plates comprising a friction-washer-portion having a pivot-opening and provided with oppositely-disposed 15 circumferentially-inclined shoulder portions,

and integral arms extending from said shoulder portions the outer or tangential edges thereof being flush with the faces of the sash and sash-sustaining-member and the inner edges being splayed forming oppositely-disposed over-hanging edges adapted to interlock with each other when the sash is in its vertical position. 20

In testimony whereof we have affixed our signatures, in presence of two witnesses.

GEORGE B. BABCOCK.

GEORGE H. BABCOCK.

Witnesses:

S. A. HARNES,

AGNES HEIMBERGER.