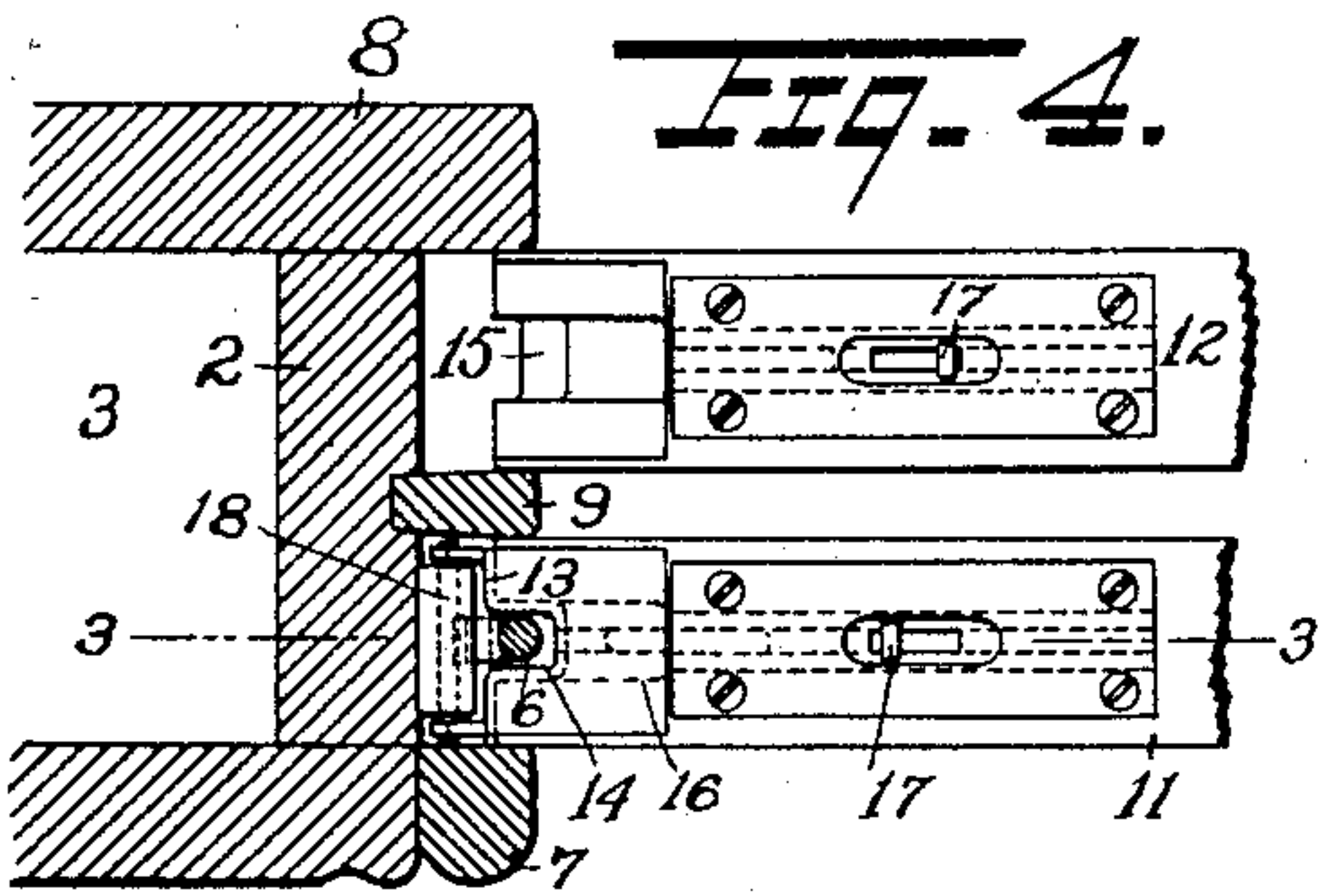


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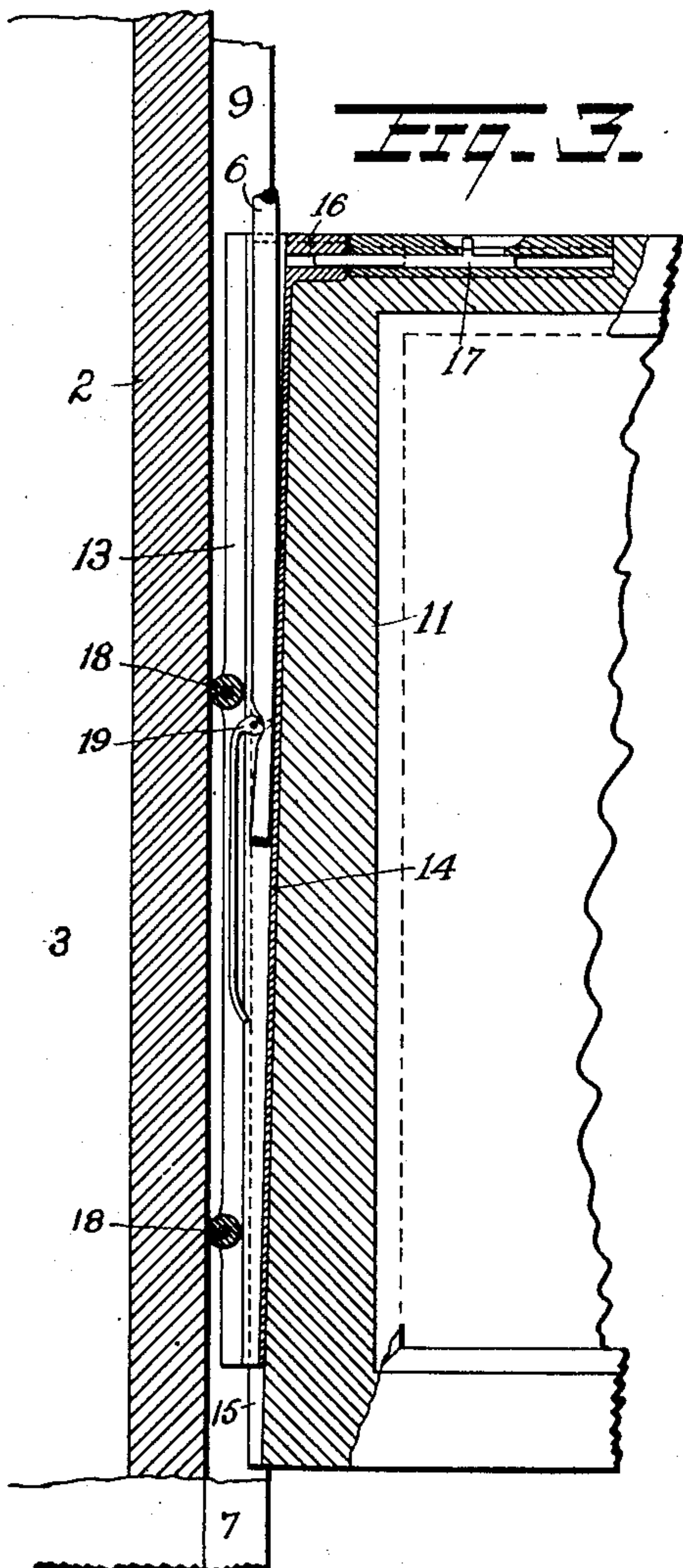
PATENTED JULY 7, 1908.

A. MERZ & J. A. HEINE.  
WINDOW.

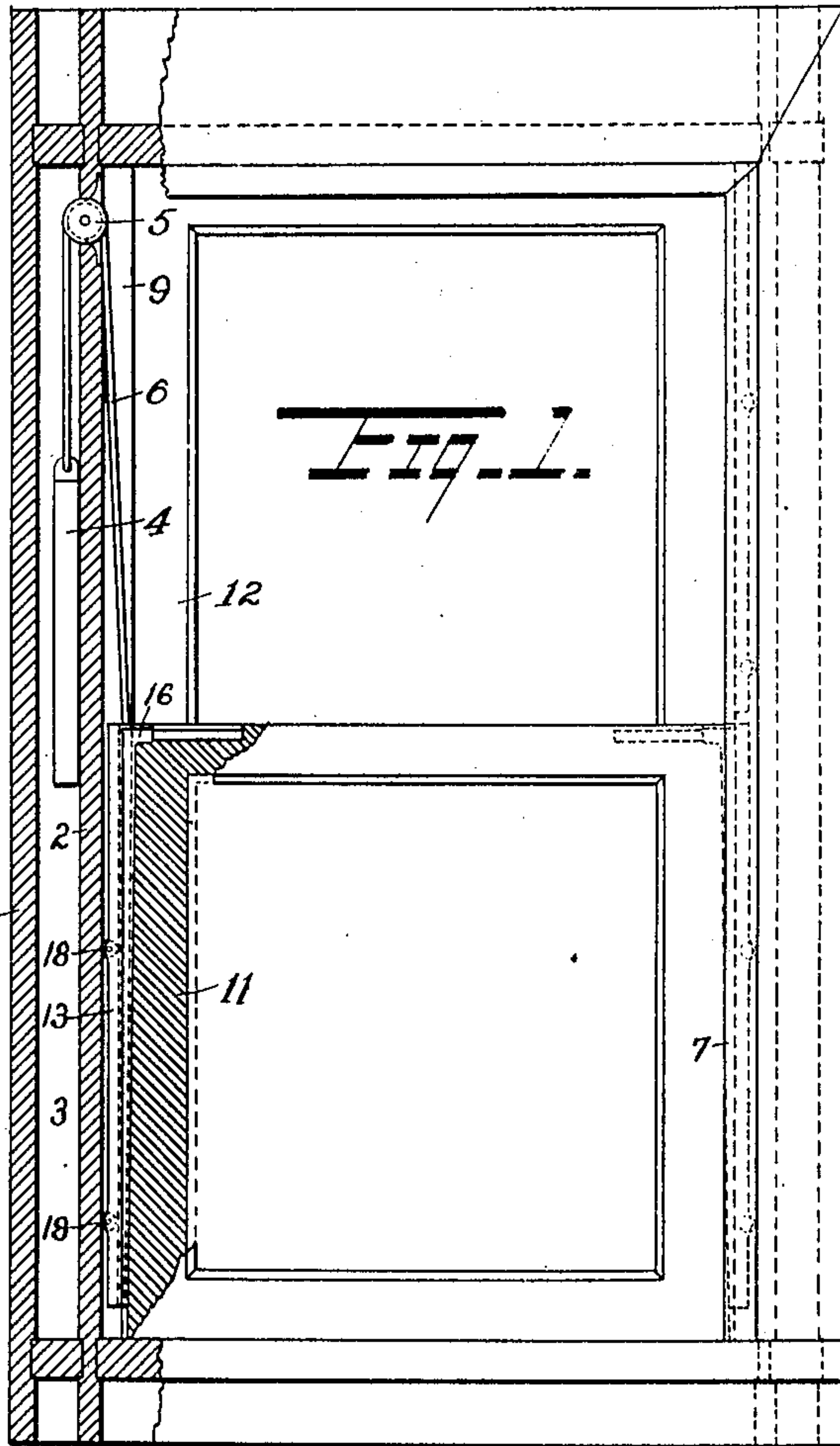
APPLICATION FILED FEB. 5, 1908.



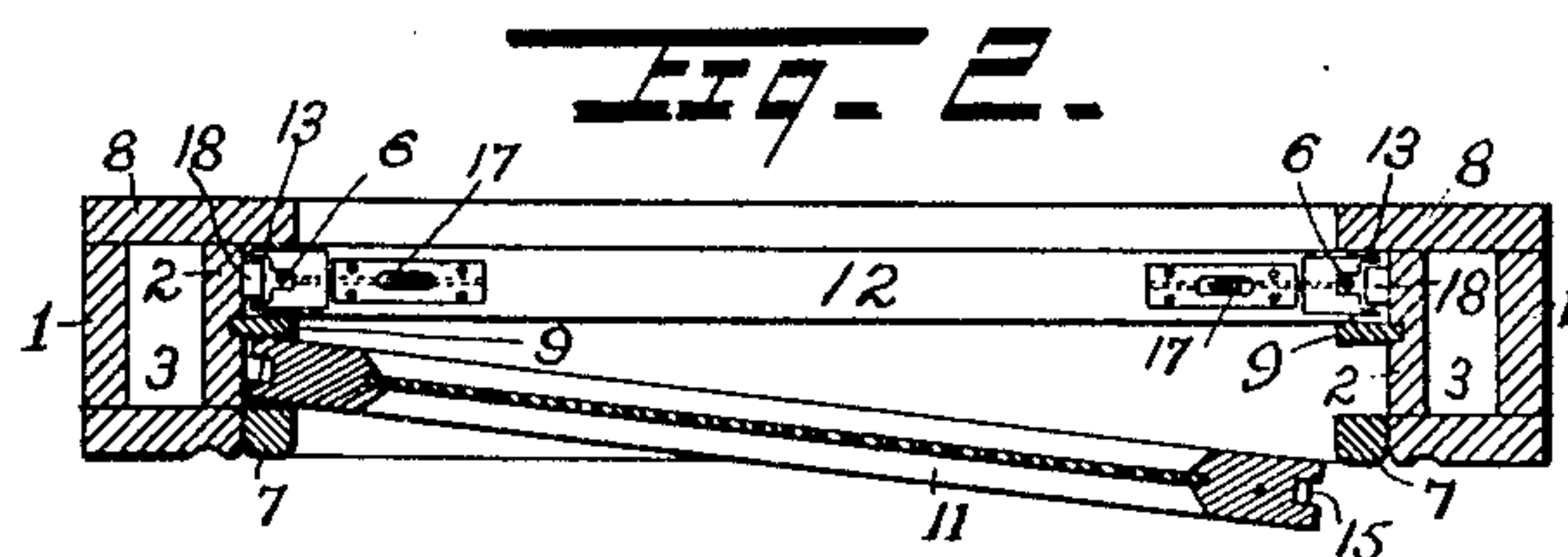
*Fig. 4.*



*Fig. 3.*



*Fig. 1.*



*Fig. 2.*

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Witnesses

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# UNITED STATES PATENT OFFICE.

ALBERT MERZ AND JOSEPH A. HEINE, OF READING, PENNSYLVANIA.

## WINDOW.

No. 892,605.

Specification of Letters Patent.

Patented July 7, 1908.

Application filed February 5, 1908. Serial No. 414,397.

*To all whom it may concern:*

Be it known that we, ALBERT MERZ and JOSEPH A. HEINE, both citizens of the United States, and residents of the city of Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Windows, of which the following is a specification.

Our invention relates to window frames having balanced sashes therein, and particularly to an improved sash construction whereby the latter may be readily removed from the window frame without disturbing the stop bead, as fully shown and described in the accompanying drawings and specification, the novel features being particularly pointed out in the subjoined claims.

Figure 1 is an elevation of a window having our improved sashes applied thereto, a portion of the casing on one side being cut away to more clearly indicate the sash strip. Fig. 2 is a sectional plan view of the same, the sash strips being removed from one sash and the latter indicated as partly removed from the frame. Fig. 3 is an enlarged detail view of a portion of a frame and sash, showing clearly the sash strip, the section being taken on the line 3—3 of Fig. 4. Fig. 4 is a plan view of Fig. 3, one sash showing the sash strip removed.

As shown in the drawings we employ the ordinary window construction, having the casing 1 and pulley stiles 2 forming the usual balance weight boxes 3 with balance weights 4 therein, and pulleys 5 at the top of said stiles for the passage of the sash cords 6. Stop beads or facing strips 7 and 8 with parting beads 9 form the usual ways for the sliding sashes 11 and 12.

In the ordinary construction of windows, to remove the sashes 11 and 12 necessitates the removal of the stop beads 7 and parting beads 9, causing great damage both to the paint and wood work and requiring a considerable amount of skill. To avoid this difficulty and permit the easy removal of the sashes for cleaning or repairing purposes, by any unskilled person, is the particular object of our improvements. To this end we make the sashes 11 and 12 of such a width as to permit their removal from the frame without removing the stop bead 7 or parting bead 9, when pushed against the pulley stile 2 in one of the ways,—but of greater width than the space between the

beads 7 on opposite sides of the window opening. And we employ in connection with these loose sashes, sash strips 13 on either side of each sash to space them centrally in their ways.

As shown in Figs. 3 and 4, these sash strips 13 are of channel construction open towards the pulley stiles 2 and having a tenon portion 14 entering a groove 15 cut in the side rail of the sash, and a locking head 16 let into the upper rail of the sash and adapted to be engaged by a sliding bolt 17 secured in said upper rail. Anti-friction rollers 18 are mounted in the channel sides and ride against the pulley stiles 2; and a cord clamping cam-lever 19 is pivotally mounted in said side strip channel to adjustably secure the sash cord 6 to the same.

To remove the sash from the frame, it is only necessary to withdraw the slide bolts 17 from engagement with the sash strip 13, the balance weights immediately raising said strips in their ways above said sash, when the latter may be pushed into one of the ways, the width of the sash then permitting it to be withdrawn from the frame, as shown particularly in Fig. 2. To replace the sash, it is merely necessary to return the same to its position in its ways and to lower the side strips 13 into the spaces between the sash and pulley stiles and lock them in position by the slide bolts 17.

Thus it will be seen that our invention provides in a simple manner for the easy removal or displacement of the window sashes, and can be readily applied to any window frame without necessitating any change in the construction of the latter. It is neat and simple in construction and entirely hidden from view, the stop beads overlapping the sashes, covering entirely the sash strip, and the locking bolts being sunk into the upper rail of the sashes.

It will of course be understood that a chain may be used in place of the sash cord 6, the cam lever 19 being preferably omitted in such event, and a hook substituted, or the pivot pin of said cam employed to secure the lower link of the chain.

What we claim is:—

1. In combination with a window frame having sash ways, parting beads between them and stop beads, and balance cord pulleys, as described, cord attached sash strips in said ways, each adapted to freely pass said pulleys and of slightly greater width



jointly than the projection of one of said stop beads, sashes between said strips, and locking devices on said sashes for engaging and disengaging said strips, substantially as  
5 and for the purpose set forth.

2. In combination with a window frame having sash ways, parting beads between them and stop beads, and balance cord pulleys, as described, cord attached sash  
10 strips in said ways having sash engaging tenons and open toward the pulley stiles and carrying friction rollers riding on said stiles, and each sash strip adapted to freely pass said pulleys and of slightly greater width  
15 jointly than the projection of one of said stop beads, sashes between said strips, grooved to receive the tenons of the latter, and locking devices on said sashes for engaging or disengaging said strips, substan-  
20 tially as and for the purpose set forth.

3. In combination with a window frame having sash ways, parting beads between

them and stop beads, and balance cord pulleys, as described, sash strips in said ways having sash engaging tenons and open toward  
25 the pulley stiles and carrying friction rollers riding on said stiles, and each sash strip adapted to freely pass said pulleys and of slightly greater width jointly than the projection of one of said stop beads, cam levers  
30 in said strip adapted to clamp the balance cords thereto, sashes between said strips, grooved to receive the tenons of the latter, and locking devices on said sashes for engaging or disengaging said strips, substan-  
35 tially as and for the purpose set forth.

In testimony whereof, we affix our signatures, in the presence of two witnesses.

ALBERT MERZ.  
JOSEPH A. HEINE.

Witnesses:

D. M. STEWART,  
W. G. STEWART.