

No. 819,453.

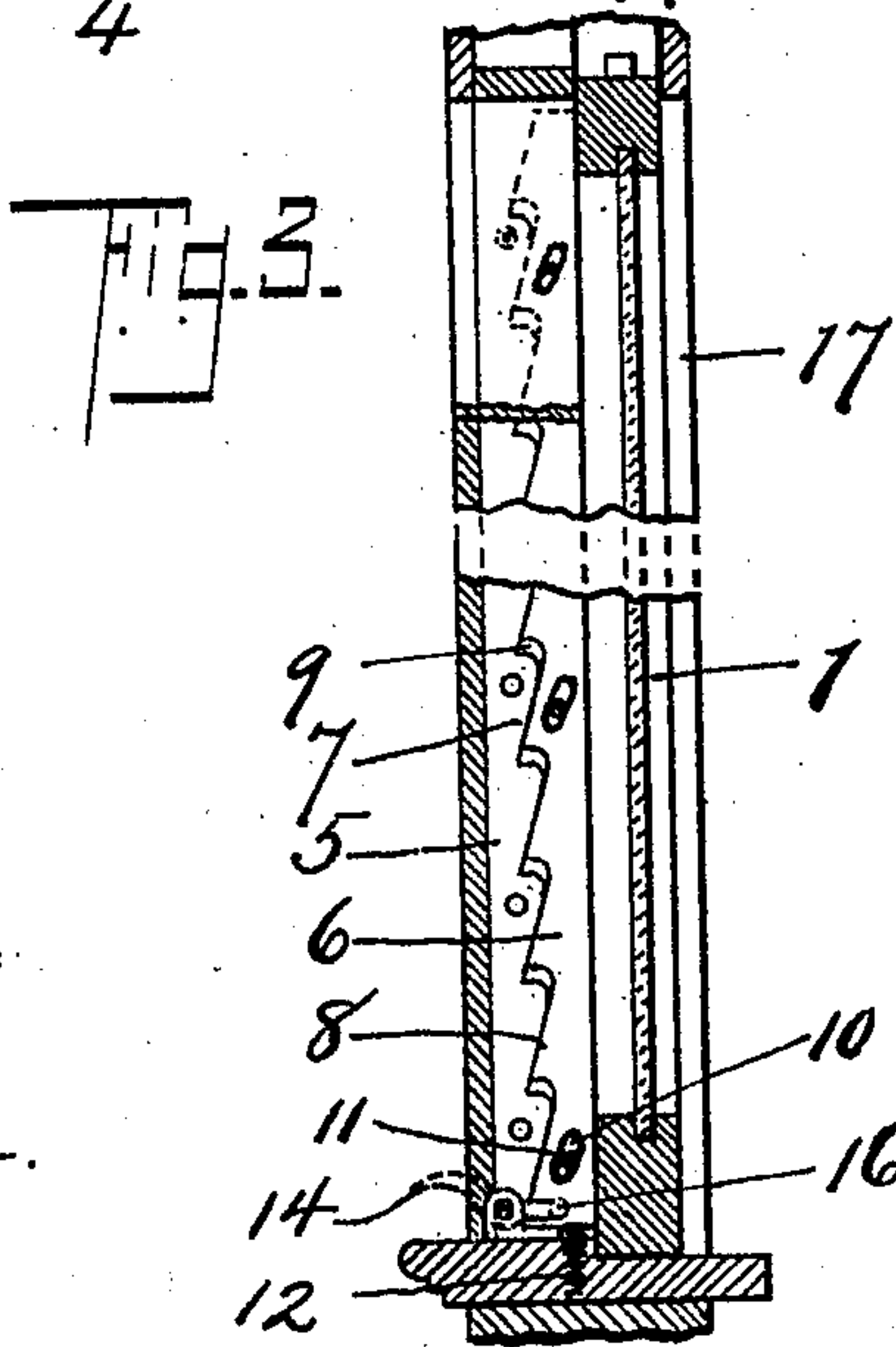
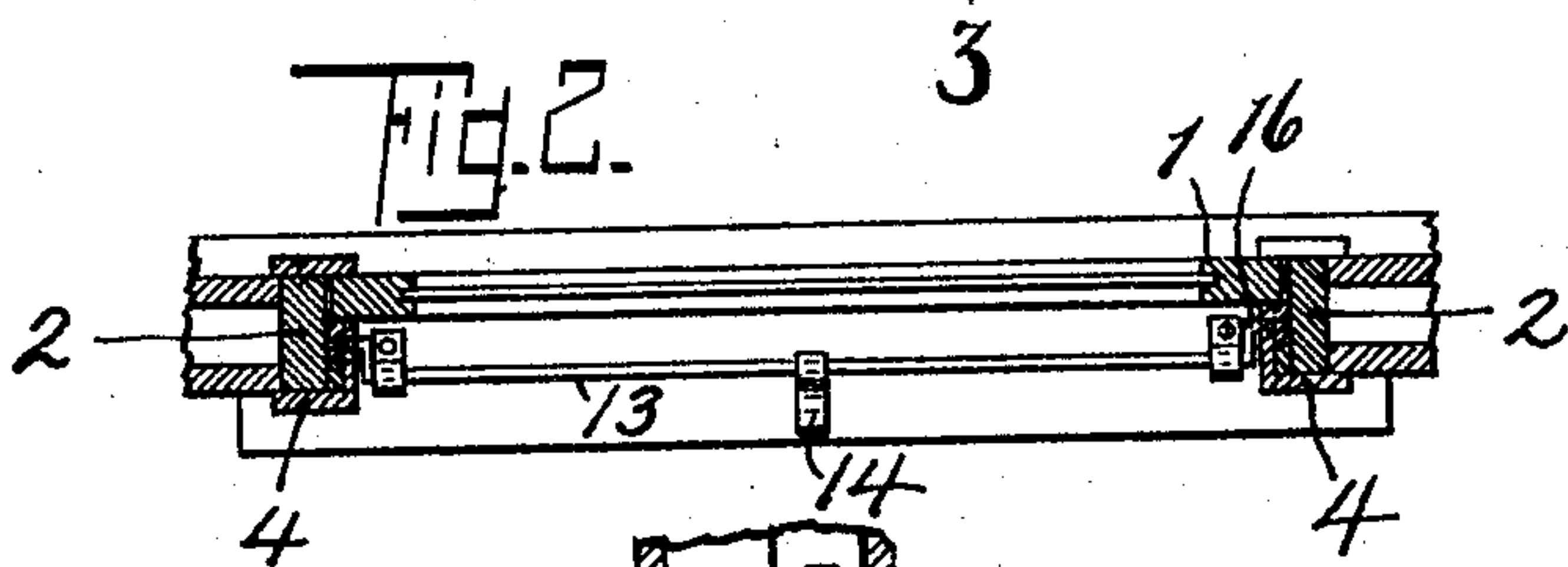
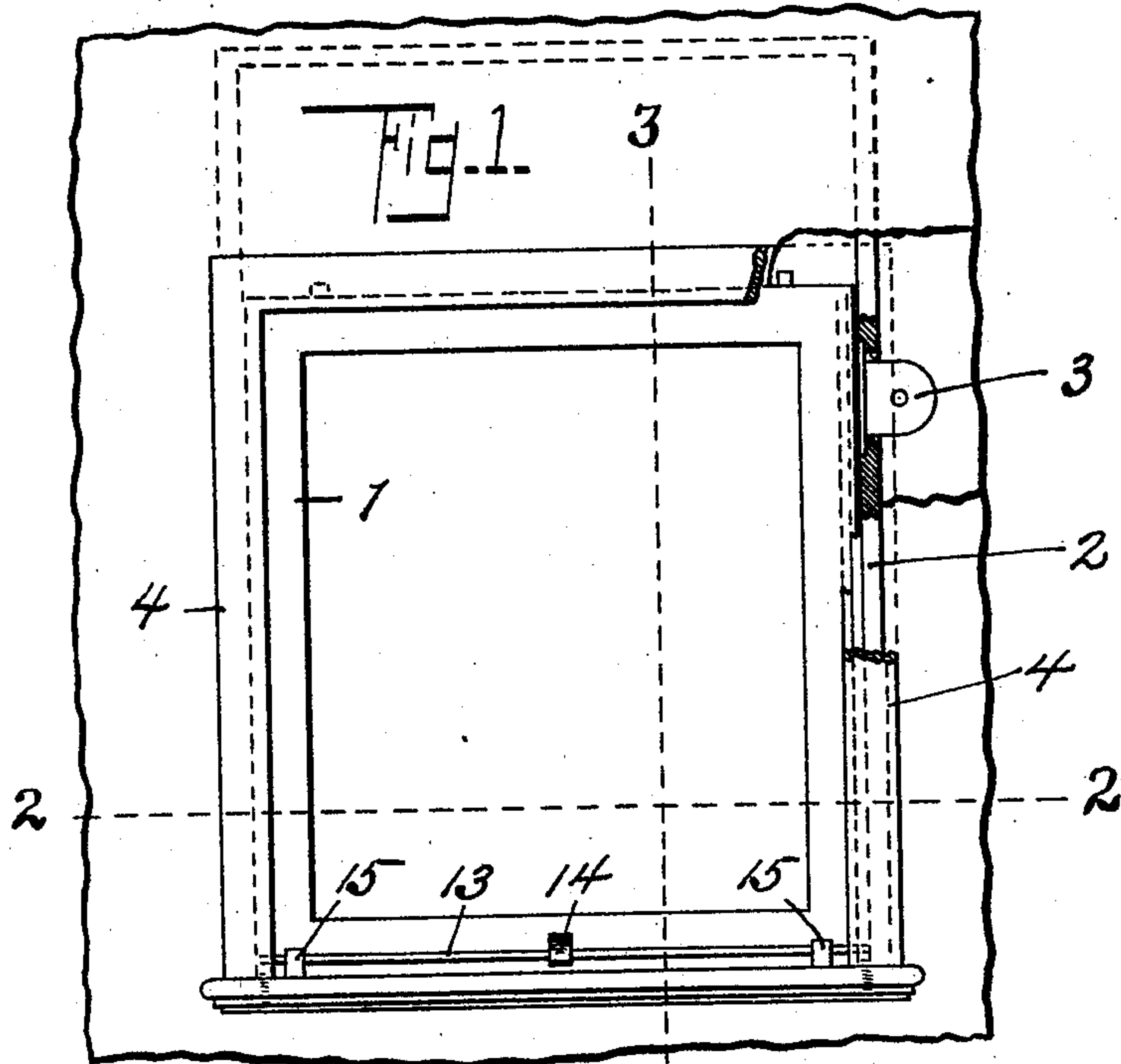
PATENTED MAY 1, 1906.

W. A. RALSTON.

SASH HOLDER.

APPLICATION FILED AUG. 4, 1903.

2 SHEETS—SHEET 1



WITNESSES=  
J. B. Butler.  
R. Gurnee.

INVENTOR=  
William A. Ralston  
By O. J. Davis  
his atty

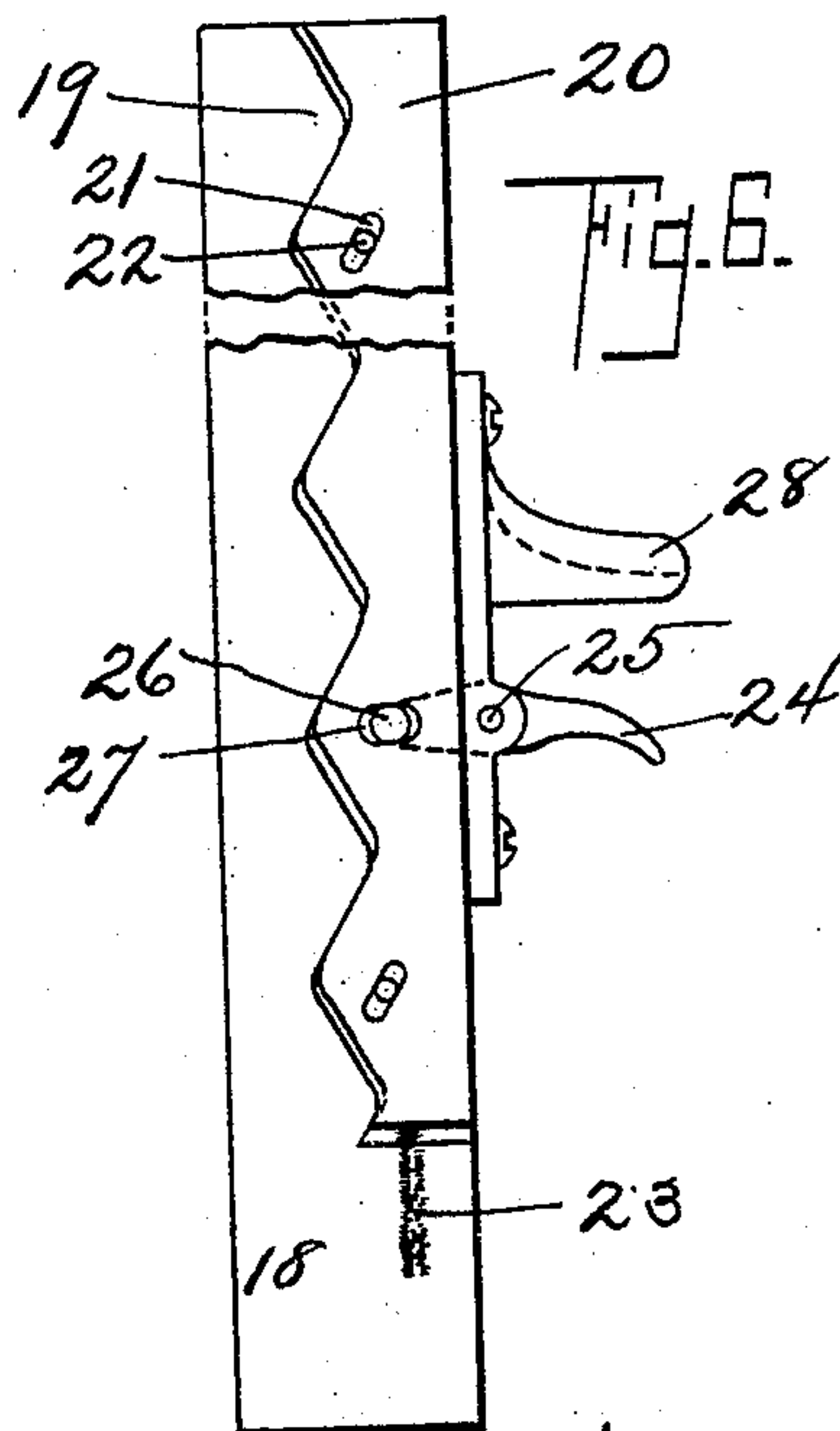
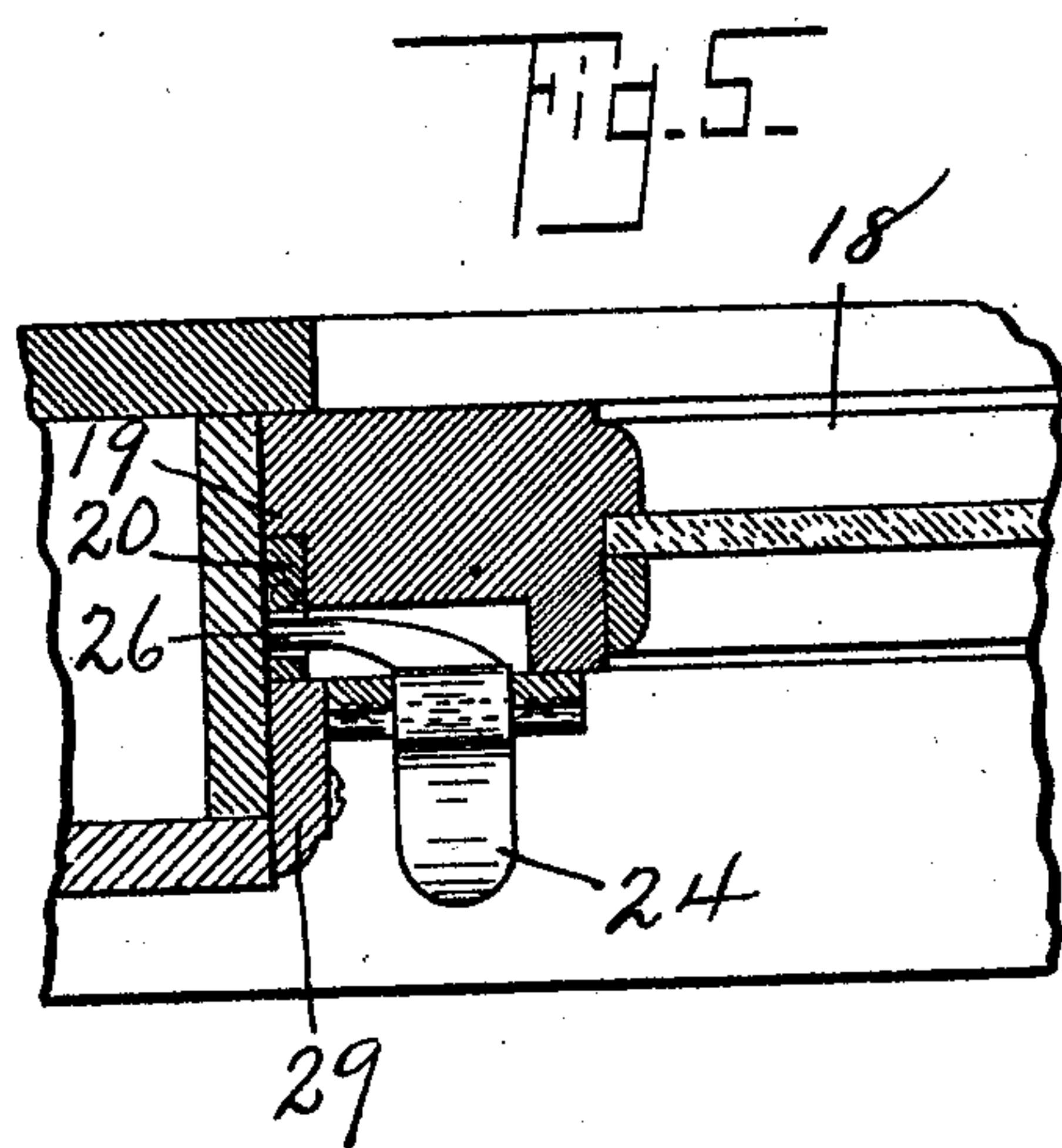
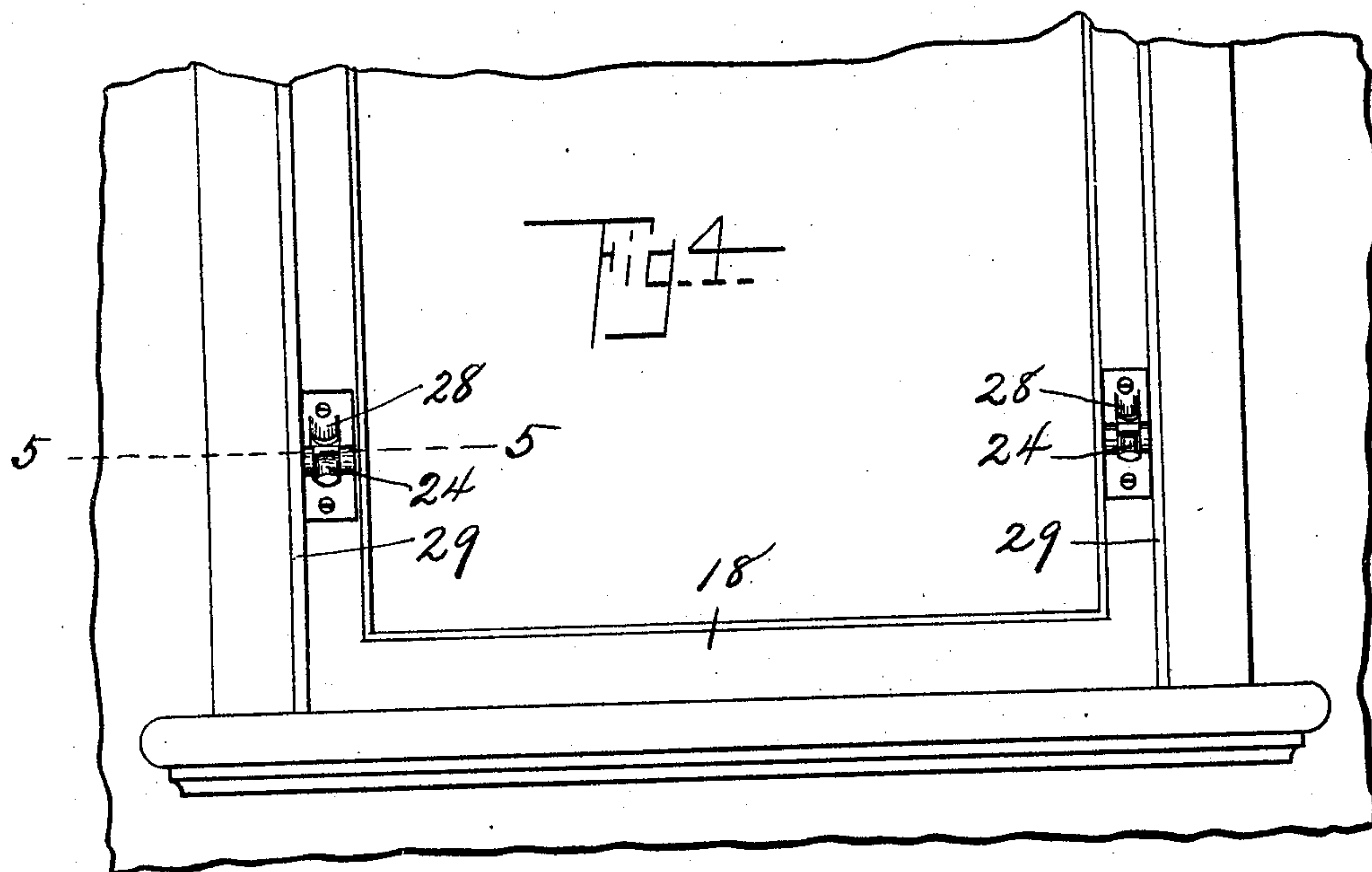
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2 SHEETS—SHEET 2.



WITNESSES—  
I. B. Butler,  
W. Gurnee.

INVENTOR—  
William A. Ralston  
by Osborn & Davis  
his Attys



# UNITED STATES PATENT OFFICE.

WILLIAM A. RALSTON, OF ROCHESTER, NEW YORK, ASSIGNOR TO  
CALDWELL MANUFACTURING COMPANY, OF ROCHESTER, NEW  
YORK, A CORPORATION OF NEW YORK.

## SASH-HOLDER.

No. 819,453.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed August 4, 1903. Serial No. 168,194.

*To all whom it may concern:*

Be it known that I, WILLIAM A. RALSTON, a citizen of the United States, and a resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Sash-Holders, of which the following is a specification.

This invention relates to sash-holders; and its object is to provide a means for holding a sash in any desired position or elevation and also for producing a dust-tight joint at the sash.

In the drawings, Figure 1 is a front view of a window having this invention applied thereto, parts being broken away to show interior construction. Fig. 2 is a cross-section on the line 2 2 of Fig. 1. Fig. 3 is a cross-section on the line 3 3 of Fig. 1. Fig. 4 is a view of part of a window having another form of this invention applied to it. Fig. 5 is a cross-section on the line 5 5 of Fig. 4, and Fig. 6 is an edge view of a portion of the sash of the form of the invention shown in Fig. 4.

In the form of the device shown in Fig. 1 the sash slides in the casing 2 and may be provided with the sash-balance 3. Within a supplementary casing 4 on each side of the window and in the position occupied by the usual stop are two bars 5 and 6, Fig. 3. The wedge-bar 5 is fastened upon the side rails of the casing 2 and has a series of wedges 7 upon the face adjacent to the sash 1. The wedge-bar 6 has corresponding wedges 8, adapted to fit against the wedges 7 of the bar 5. The bars 5 and 6 have stop-faces 9 adapted to limit their movement upon each other in one direction. The bar 6 may also have slots 10 parallel to the faces of the wedges 8 and pins 11 extending into the frame 2, whereby the wedge-bar 6 is guided.

A spring 12 is adapted to move the movable bar 6 in such a direction as to clamp the window-frame, as hereinafter described. The wedge, therefore, normally clamps the sash.

A bar 13, having a handle 14 and carried by bearings 15, has cranked ends 16, Fig. 2, extending into the movable bar 6. On moving the handle 14 the cranks will be turned and the bars 6 moved against the force of the spring 12, thus releasing the wedging between the bars 5 and 6 and freeing the sash 1. On releasing the handle 14 the springs 12 act

again and clamp the sash in whatever position it may take.

The bar 6 when moved inward, as shown in Fig. 3, clamps against the sash 1 by the wedges 7 and 8 moving on each other, and this forces the sash against the outer stop 17 of the window and not only clamps the window in position, but also makes a dust-tight joint between the sash and its outer stops. In this form of the device the sash is movable, while the bars 5 and 6 and the operating means, consisting of the handle and cranks, are on the stationary part of the frame. It is necessary to use two hands—one to lift the sash and the other to operate the releasing mechanism—unless the sash is very free in its guides, and the sash-lifting means, such as the balance 3, lifts the sash automatically.

In the form of the device shown in Fig. 4 the hands are used at the same time to operate the wedges and to lift or lower the sash. The various parts are all carried by the sash itself. In this form of the device the sash has its edge rabbeted and longitudinal wedges 19 on the edge of the rabbet. A movable wedge-bar 20, having edges corresponding to those on the edge of the rabbet, is set in the rabbet and is guided therein by the slots 21 in the bar 20 and the pins 22, extending through said slots into the edge of the sash 18. A spring 23 tends to raise the movable wedge-bar 20. The sash also bears a lever 24, pivoted on the sash, as at 25, and having a pin 26 engaging the bar 20, as by the slot 27. The sash also carries adjacent to the lever 24 a stationary bearing-block 28. On lifting the exposed end of the lever 24 the wedges release, as will be obvious from Fig. 6, and the spring 23 is compressed, so that the window may be lifted. On releasing the lever 24 the spring 23 again moves the wedge-bar 20 so as to clamp the outer edge of the sash against the outer stop and the wedge-bar 20 against the usual inner stop 29 on the window-frame 30. This form of the invention causes a dust-tight joint exactly as does the other form and also maintains the window at any height to which it may be raised. The rabbeted edge of the sash 18 constitutes a wedge-bar attached to the sash.

What I claim is—

1. The combination with a frame and sash, of two wedge-bars one relatively movable



with respect to the other the movable bar having its wedge surface tapered to decrease in the direction in which the sash moves in opening; the wedge surface on the other bar being oppositely tapered, a spring pressing the movable bar upwardly to cause it to clamp the sash, and a manually-actuated device engaging said movable bar to depress it against the action of the spring and cause it to release the sash, substantially as set forth.

2. The combination with a frame and sash, of two pairs of wedge bars at opposite edges of the sash, each pair having one bar relatively movable with respect to the other and having its wedge surface tapered to decrease

in the direction in which the sash moves in opening; the wedge surface of the other bars being oppositely arranged with respect to those of the movable bars, springs pressing the movable wedge-bars upwardly to cause them to clamp the sash, and a manually-actuated bar or rod having cranked ends engaging the lower ends of said movable bars to depress the said bars against the action of their springs and release the sash, substantially as described.

WILLIAM A. RALSTON.

Witnesses:

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