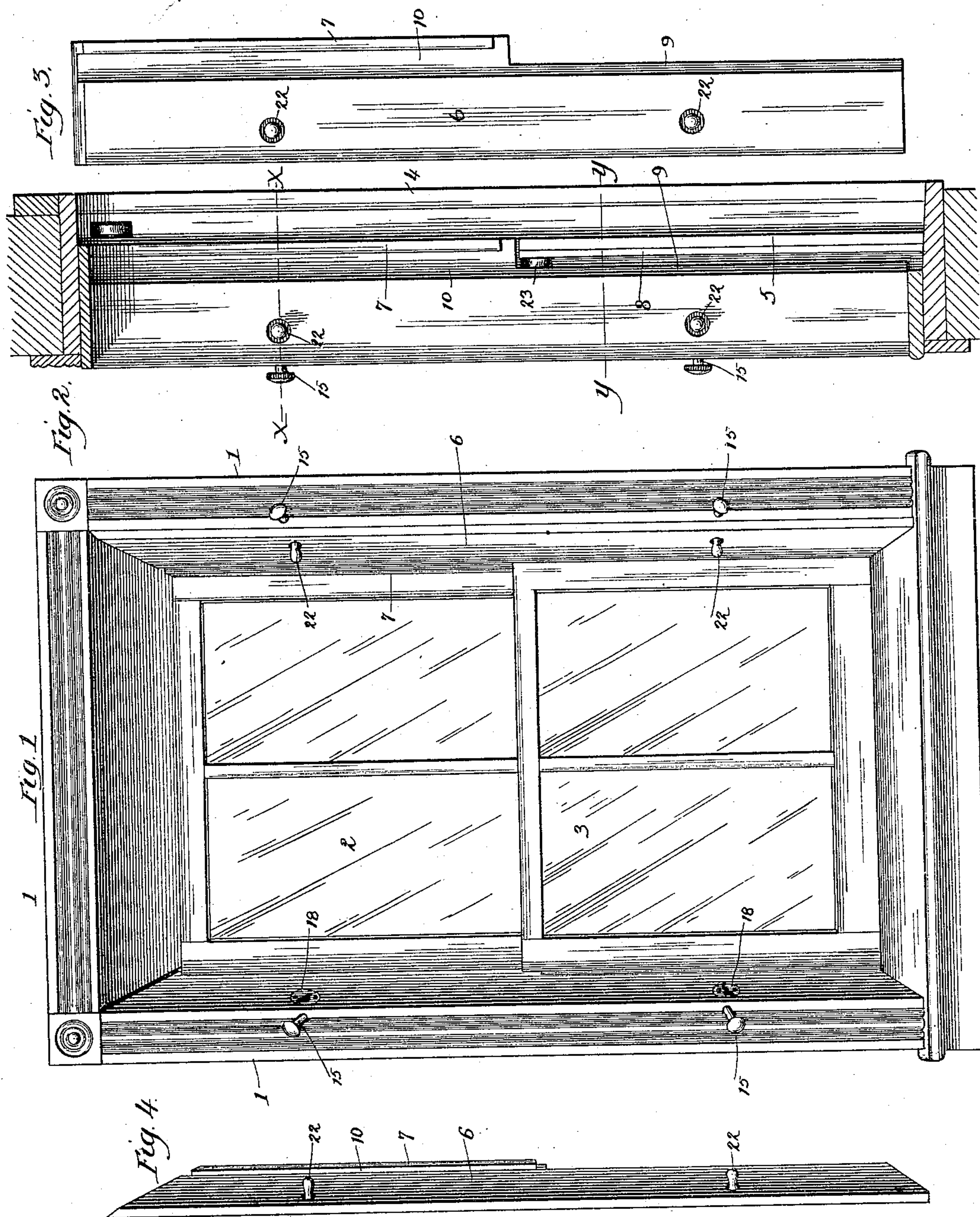


2 Sheets—Sheet 1.

No. 574,968.

Patented Jan. 12, 1897.



Witnesses:

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A. Williamson

Inventor:

James M. Wheeler.

By *Geist Holgate*
Attorney

(No Model.)

2 Sheets—Sheet 2.

J. M. WHEELER.
WINDOW.

No. 574,968.

Patented Jan. 12, 1897.

Fig. 5.

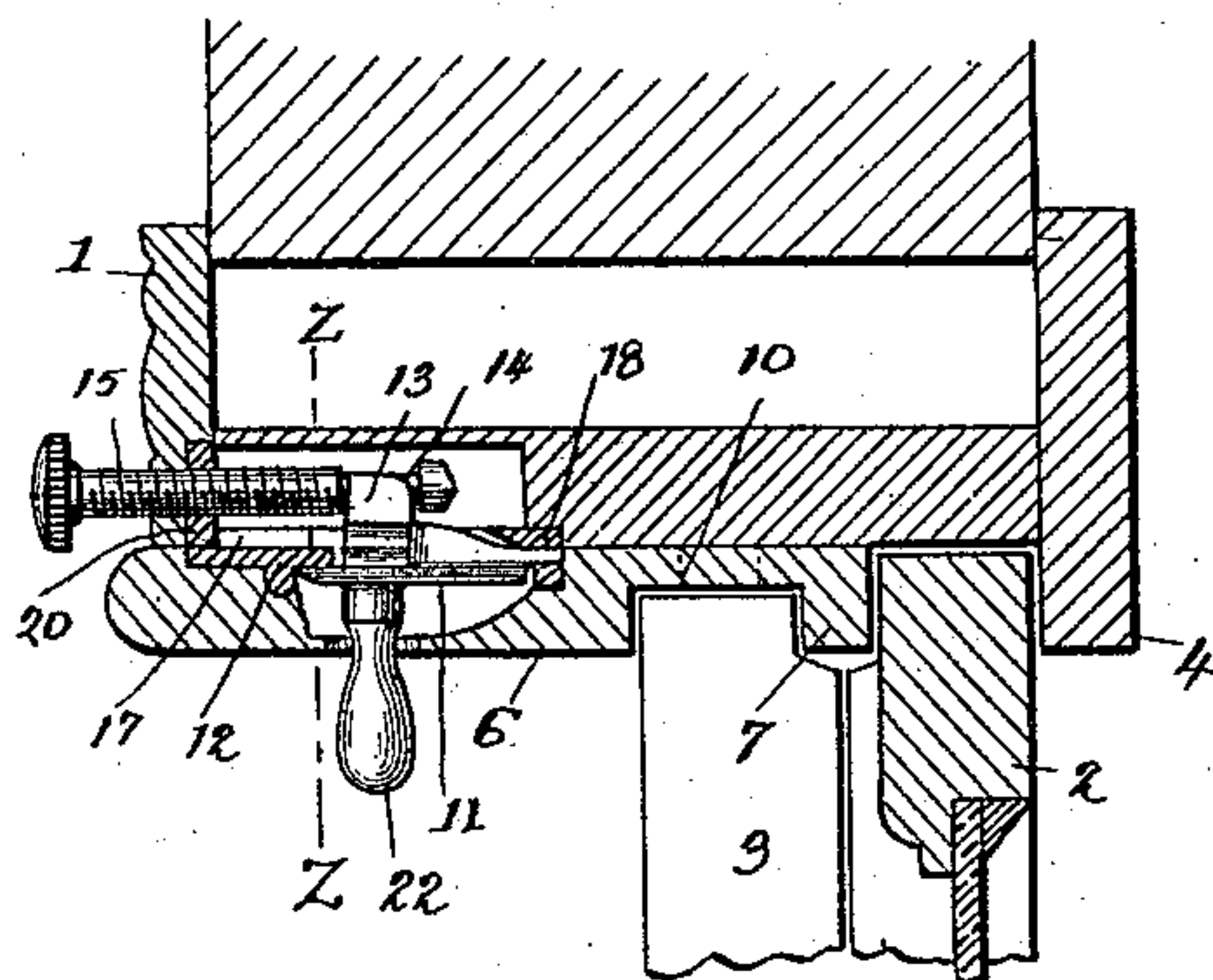


Fig. 7.

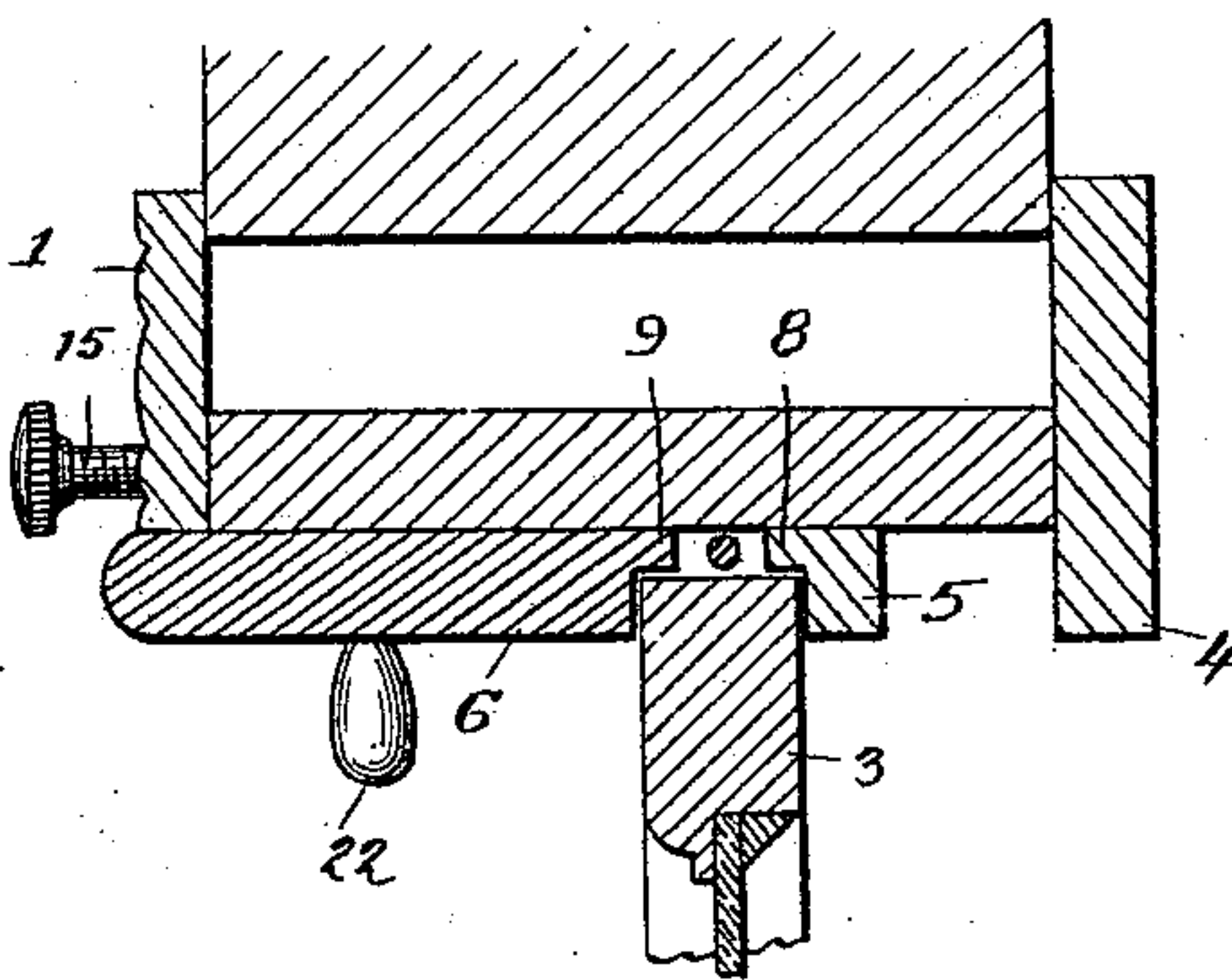


Fig. 6.

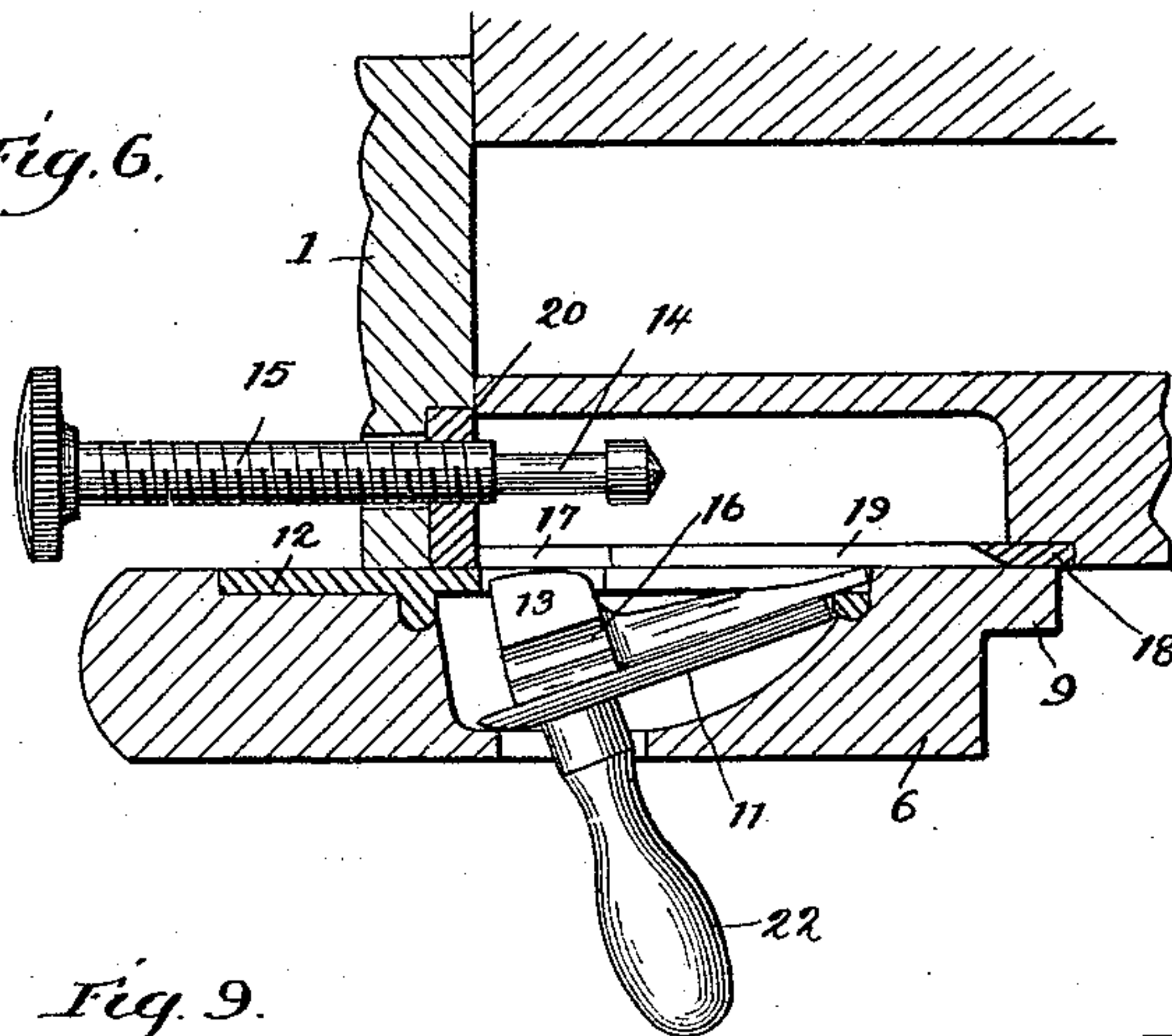


Fig. 8.

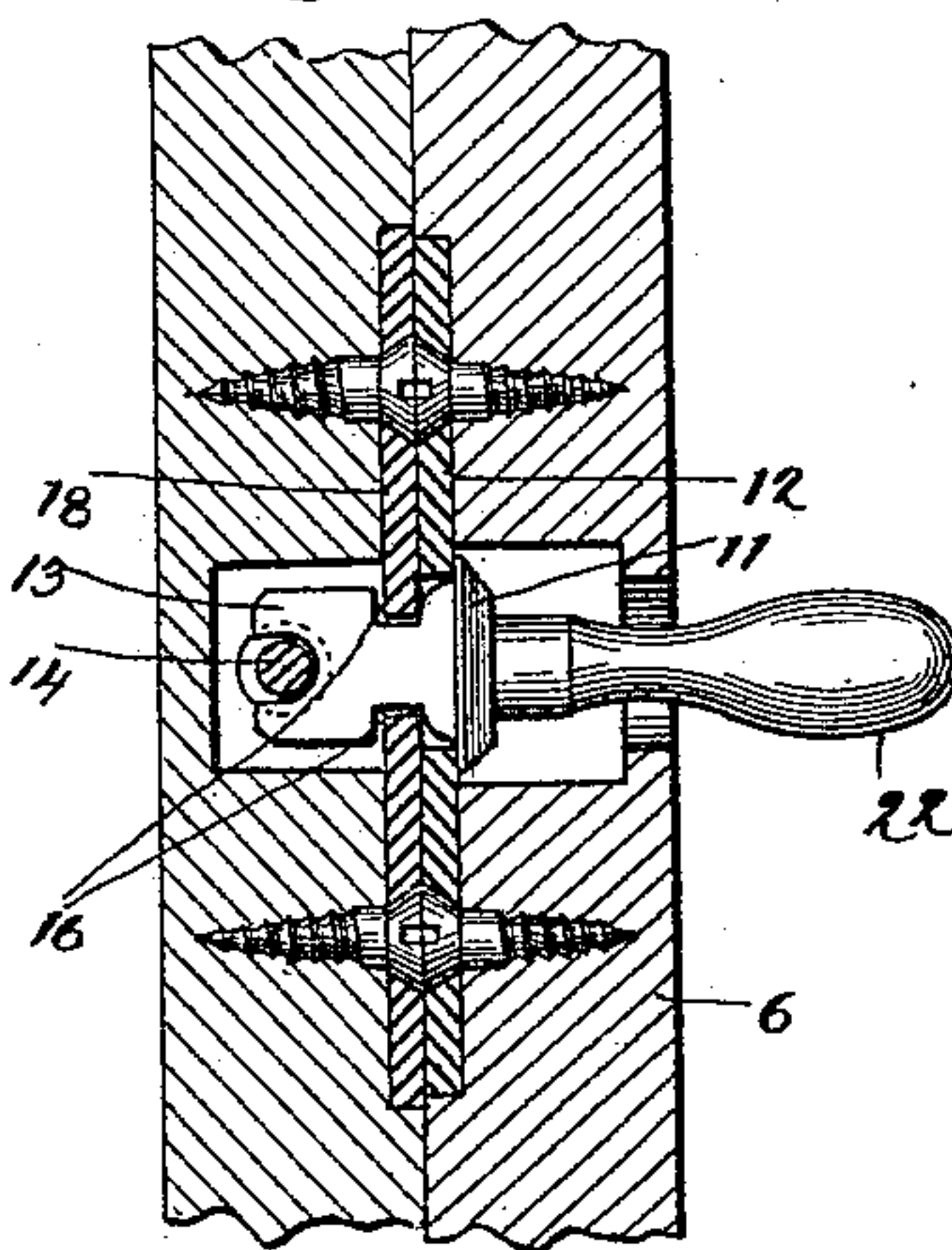


Fig. 9.

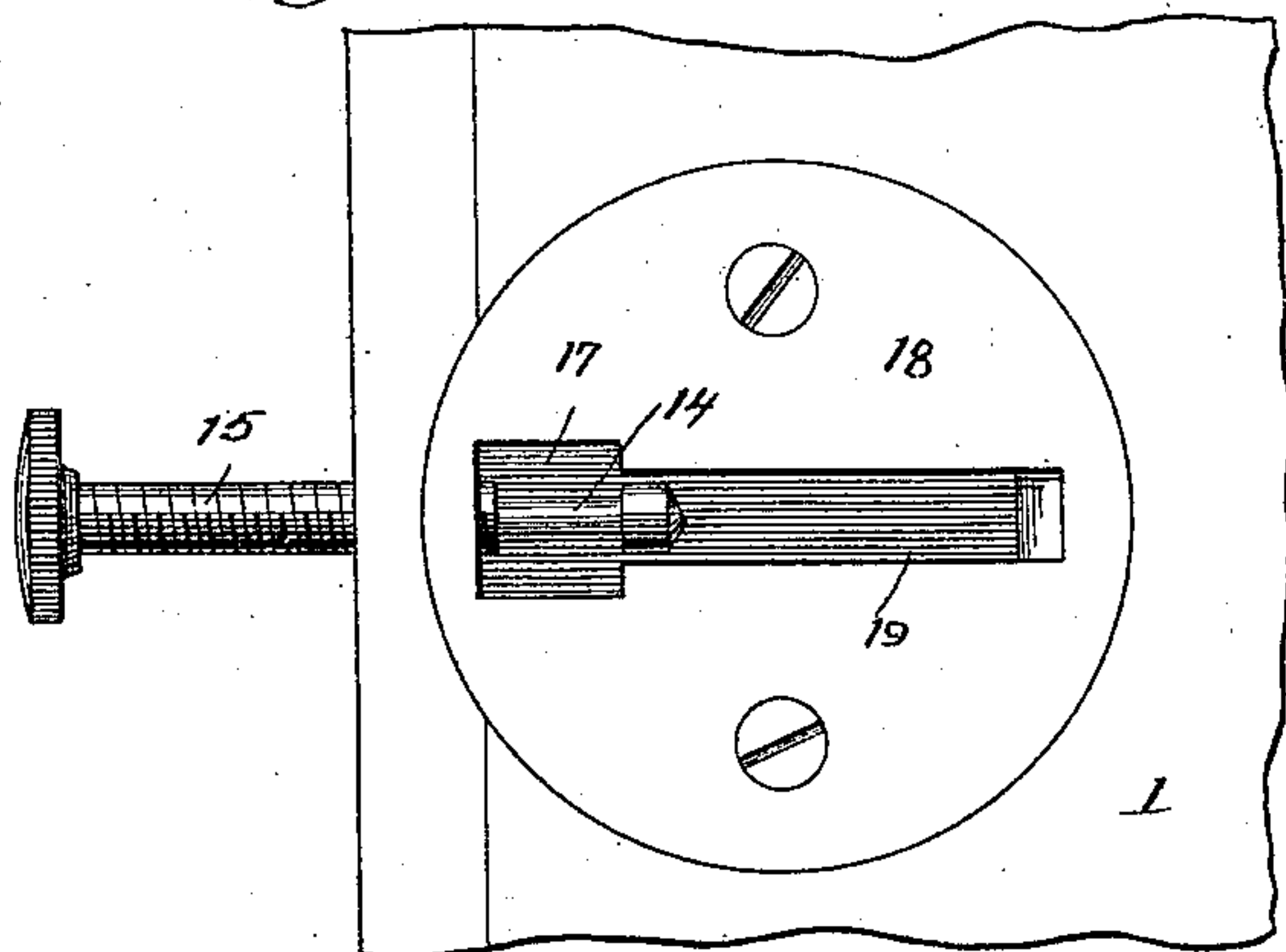
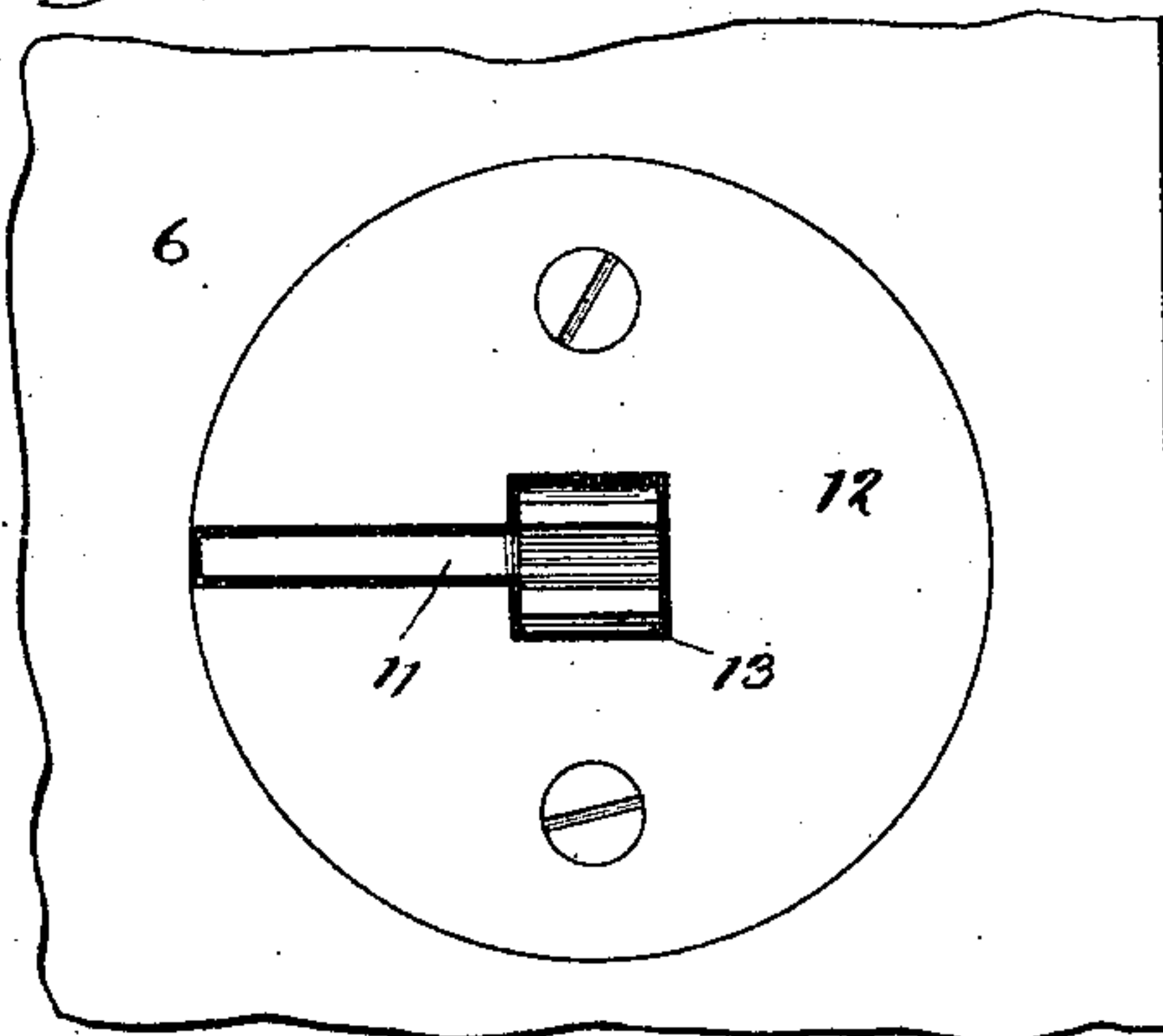


Fig. 10.



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UNITED STATES PATENT OFFICE.

JAMES MADISON WHEELER, OF FISH'S EDDY, NEW YORK, ASSIGNOR OF
ONE-THIRD TO PETER F. ROLIN, OF SAME PLACE.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 574,968, dated January 12, 1897.

Application filed July 15, 1896. Serial No. 599,306. (No model.)

To all whom it may concern:

Be it known that I, JAMES MADISON WHEELER, a citizen of the United States, residing at Fish's Eddy, in the county of Delaware and State of New York, have invented certain new and useful Improvements in Windows, of which the following is a specification.

My invention relates to a new and useful improvement in windows, and has for its object to so construct a window as to permit the ready removal of either or both of the sashes thereof in order that the glass within the sash may be cleaned upon both sides without danger to the person operating thereon, and to provide means for preventing the rattling of the sashes, as well as to hold the same in a locked position without the use of sash-fasteners.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction and operation in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective of a window-casing having my improvement embodied therein; Fig. 2, a central vertical section of said frame; Fig. 3, a detail of the check-rail; Fig. 4, a detailed perspective of the same; Fig. 5, a section at the line *xx* of Fig. 2, showing the adjusting mechanism for operating the check-rail; Fig. 6, a similar view enlarged, showing the position of the several parts of the adjusting mechanism when the check-rail has been disengaged therefrom; Fig. 7, a section at the line *yy* of Fig. 2; Fig. 8, a section at the line *zz* of Fig. 5; Fig. 9, a face view of one of the escutcheons, showing the operating-screw in the position to receive the latch; and Fig. 10, a face view of one of the latch-plates.

Referring to the drawings in detail, 1 represents the window-casing, which may be of any suitable design, and 2 and 3 the upper and lower sashes, respectively, fitted within said casing. The upper sash is guided in its vertical movements by the strips 4 upon the rear side thereof, and by parting-strips 5,

which latter extend from the lower sill of the window, half-way up the casing thereof.

The upper sash is guided upon the front side within the upper portion of the casing by the check-rails 6, one upon either side of the casing, and these rails are so designed as to guide said sash by the inner edges 7 of their offsets, which, when placed in position, aline with the strips 5. One of the parting-strips is provided with an offset 8, and this is utilized for the guidance of the lower sash laterally and serves the purpose of permitting said sash to be more readily withdrawn from the casing when the check-rail is removed. The check-rail is also provided with an offset 9, which, when in place, completes the lateral guidance of the lower sash in conjunction with the offset 8, and a groove 10 is formed in the check-rail, which serves as a continuation of the offsets 8 and 9, so that when the lower sash is run upward its lateral guidance is maintained by this groove, which also serves to guide said sash against front or rearward displacement, it being noted that there are two of these check-rails, each guiding one side of the sash.

In order that the check-rails may be brought and secured in place, each is provided with a latch 11, pivoted to a plate 12, which latter is secured upon the inner face of the rail flush with the surface thereof, and this latch has a forked nose 13, adapted to pass into engagement with the reduced portion 14 of the operating-screw 15. The nose has grooves formed in the sides thereof, and is adapted to pass through the opening 17 of the escutcheon 18, which latter is secured to the face of the window-casing, and is also provided with a slot 19, running from said opening rearward, so that when the nose of the latch is passed through the opening 17 and pushed rearward the side walls of this slot will engage the grooves 16 in said nose, thus preventing the latter from swinging outward. The operating-screw 15 is threaded through the lug 20, formed with the escutcheon, so that when the nose of the latch is swung through the opening 17 into engagement with the reduced portion 14 of said screw it is only necessary to run the screw inward to carry the latch and check-rail therewith, and when

the side walls of the slots 19 have once engaged with the grooves 16 the connection between the latch and screw will be maintained against accidental disengagement. Now as
 5 each of the check-rails is provided with two latches, one located at the lower portion thereof and one at the upper portion thereof, and corresponding escutcheons and operating-screws are located upon the window-casing, it will be seen that each of the check-rails may be quickly brought into its proper relative position to the sashes, and when so
 15 adjusted will serve to guide the sashes in their vertical movements, and when it is desired to lock said sash against vertical movements this may be done by forcing the check-rails against the side rails of the sashes by a further operation of the screw 15. When the sashes are to be removed, the screws are backed
 20 off, drawing with them the side rails until the reduced portions of said screws register with the opening 17, when the latch may be swung outward, thereby disengaging their noses from the screws and freeing the check-rails,
 25 after which said rails may be readily removed from the casing, which will leave the sashes free to be drawn without said casing and to be reversed for cleaning purposes.

The swinging of the latches is facilitated
 30 by the knobs 22, which project through the check-rails, so as to be readily grasped by the hand of the operator. The sashes of the window may be counterbalanced by weights passing through suitable pulleys, and I prefer to arrange the pulleys 23 for the operation of the lower sash at a point just below
 35 the upper rail of said sash when it is in its lowered position and attach the rope to the lower end of said sash, thereby concealing
 40 the pulley and rope from view when the sash is in place, and also facilitating the withdrawal of the sash from the casing, but when the sashes are not to be counterbalanced by weights the offsets 8 may be omitted and the
 45 offsets 9 of the check-rails made of a width sufficient to serve the purpose of lateral guidance of the lower sash. The removal of the upper sash is readily accomplished after the check-rails have been removed, since these
 50 check-rails hold said sash in place when in its upper position, and it is therefore only necessary to leave it in this position and draw it outward.

From this description it will be seen that
 55 a window provided with my improvement will have the same general appearance of those of ordinary construction, but the sashes thereof may be removed at any time that occasion requires, and also that these sashes

may be locked against being opened from the
 60 outside, as well as being held against the disagreeable rattling which is often occasioned by the movements of the outside atmosphere, and since the cost of constructing a window
 in accordance with my improvement is but
 65 little in advance of the cost now required in the construction of ordinary windows it is obvious that I have made a decided improvement in the state of the art.

Having thus fully described this invention,
 70 what I claim as new and useful is—

1. In combination with a window-frame, two sashes located therein, parting-strips extending half-way up said frame, check-rails adapted to guide the sashes, latches secured
 75 upon said rails, screws secured upon the casing and adapted to engage the latches when the latter are swung inward whereby the sashes may be locked against vertical movements and lateral vibrations, as specified. 80

2. The herein-described combination of a window-frame, two sashes adapted to slide therein, half-length parting-strips for guiding the sashes when in their lowered position, check-rails fitted within the frame and adapted
 85 to be moved to and from the sashes, latches carried by said rails, said latches having forked noses, escutcheons secured upon the face of the frame, screws threaded through lugs formed upon said escutcheons, said
 90 screws having reduced portions for the engagement of the noses of the latches, and knobs for swinging the latches into engagement with the screws, substantially as and for the purpose set forth. 95

3. The herein-described combination of a window-frame, two sashes adapted to slide vertically therein, half-length parting-strips for guiding said sashes, check-rails fitted within said frame and also adapted to give
 100 guidance to said sashes, plates carried by the rails, latches pivoted to said plates, knobs attached to the latches for their operation and forked noses formed with said latches, escutcheons secured to the frame having lugs
 105 formed therewith and openings and elongated slots formed in the escutcheons, and screws threaded through said lugs said screws having reduced portions for engagement with the noses of the latches, substantially as and
 110 for the purposes set forth.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

JAMES MADISON WHEELER.

Witnesses:

S. S. WILLIAMSON,
 R. M. PIERCE.