

(No Model.)

T. F. DOLEN.
TRANSOM SASH PIVOT.

No. 585,840.

Patented July 6, 1897.

Fig. 1.

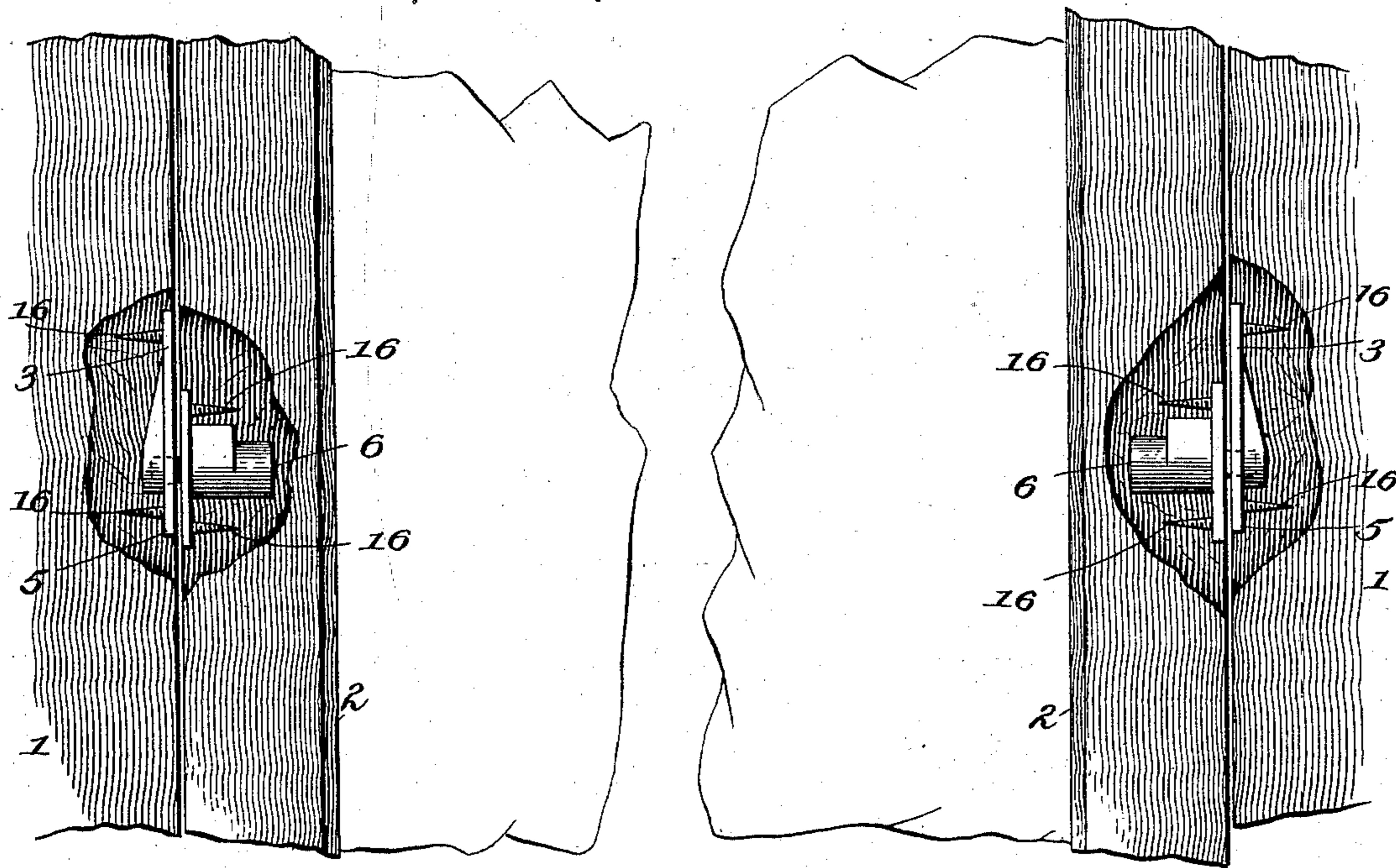


Fig. 2.

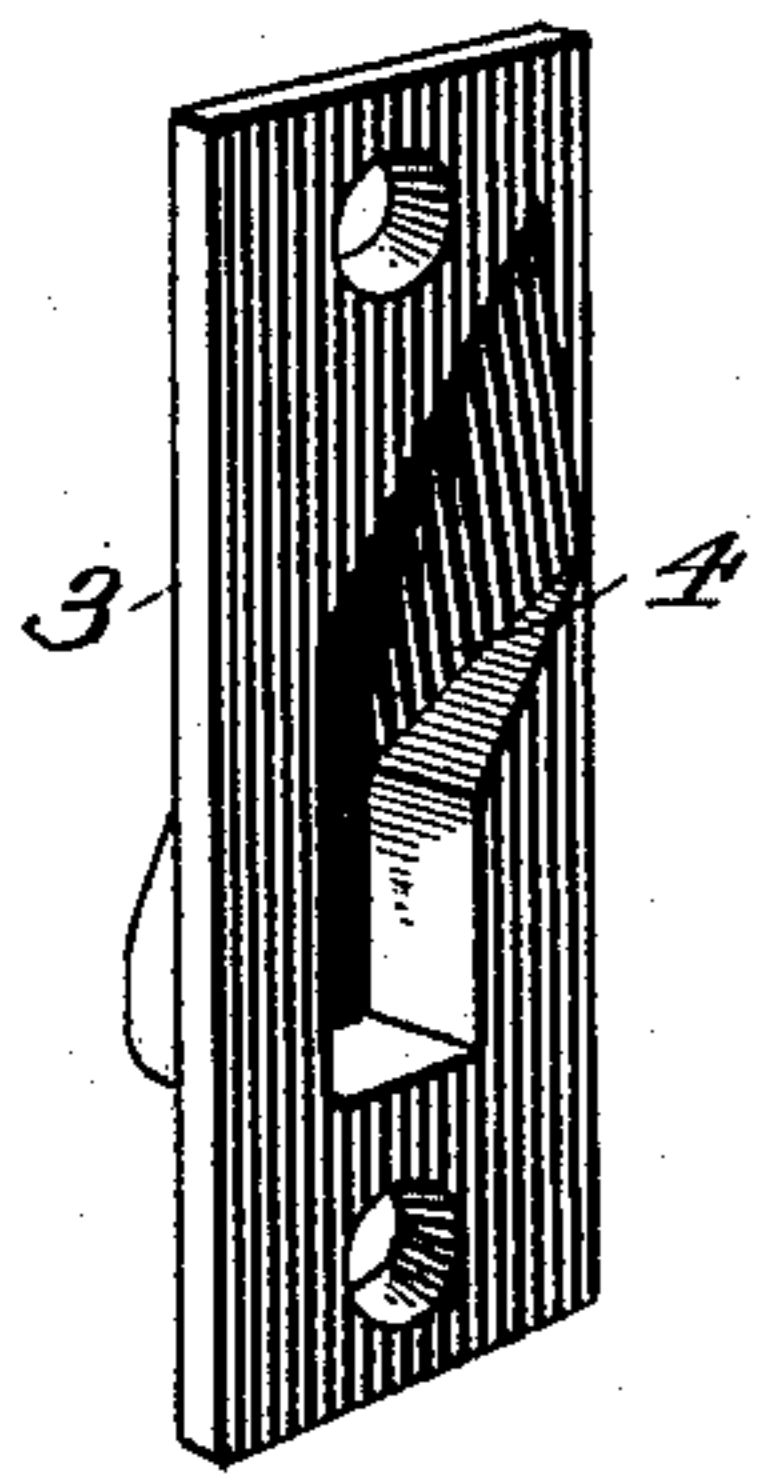


Fig. 3.

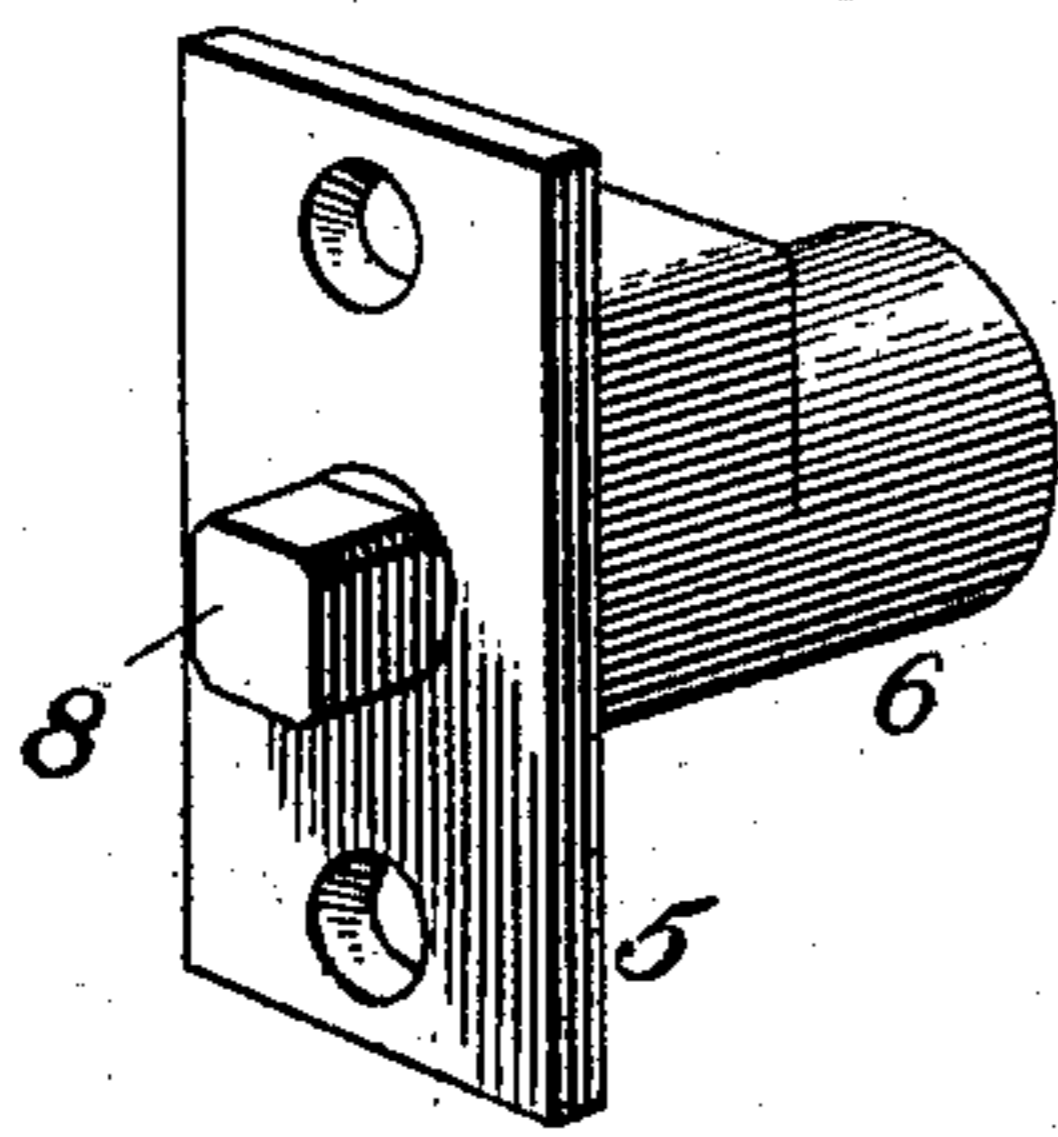


Fig. 4.

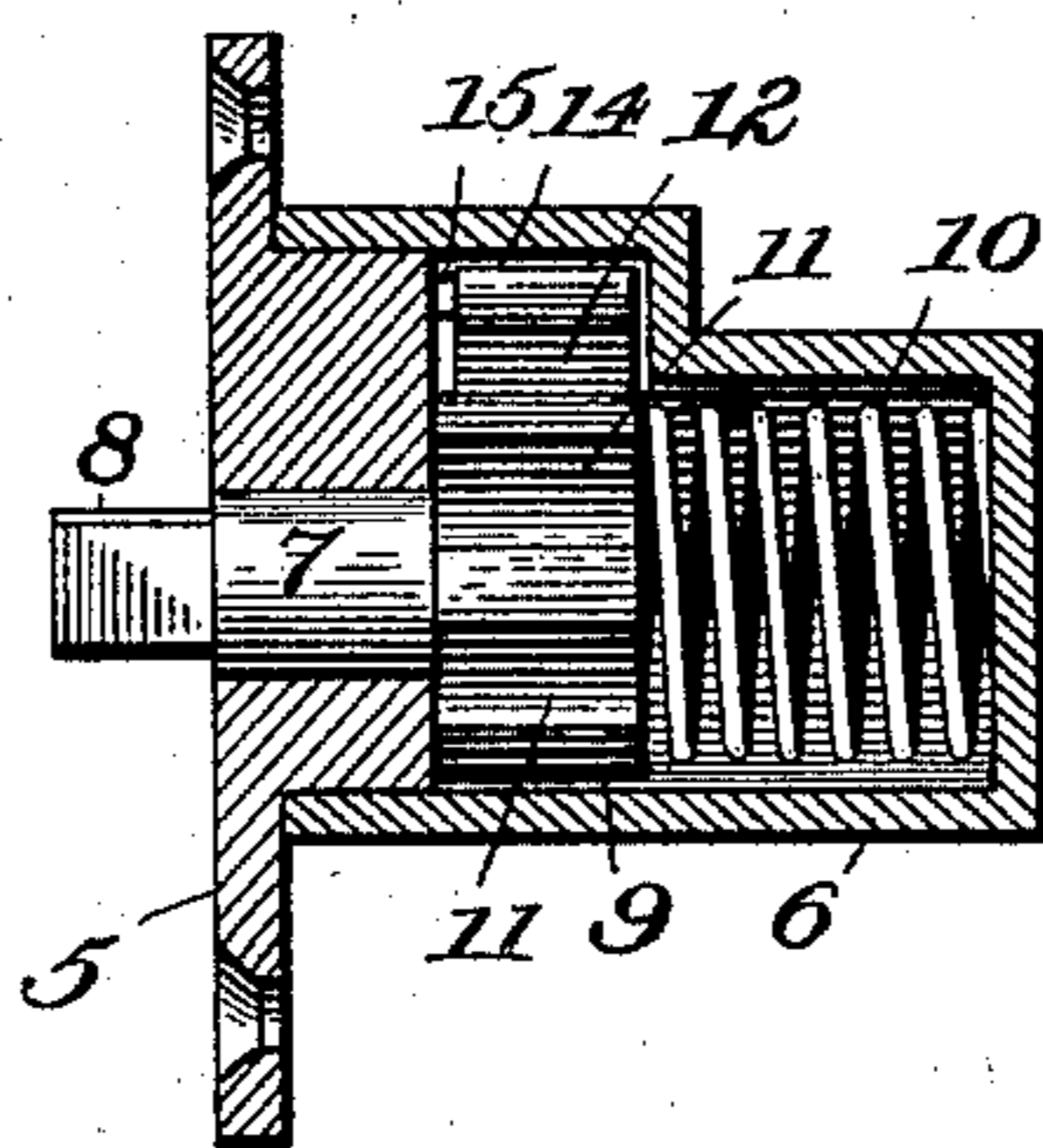
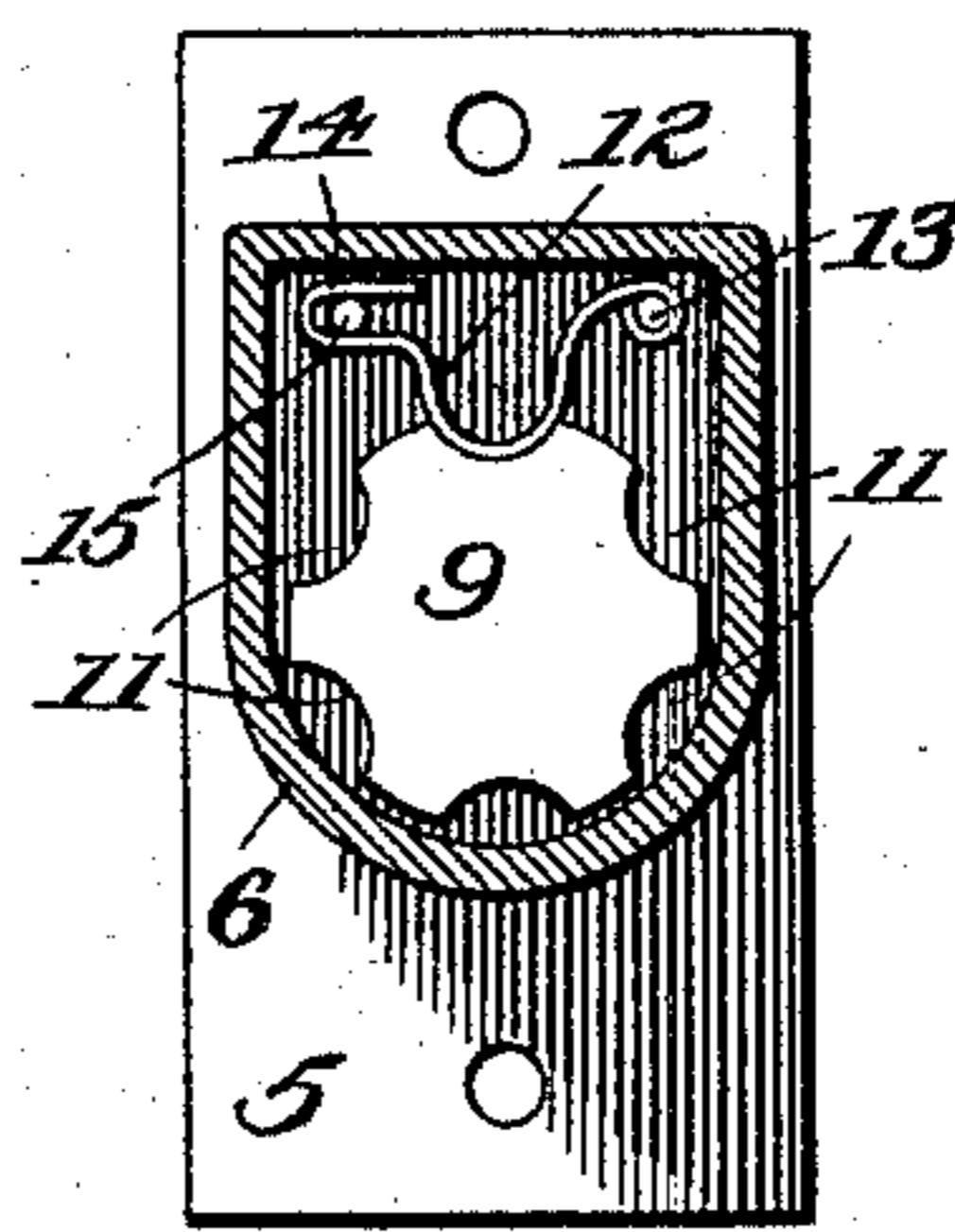


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

THOMAS F. DOLEN, OF ROCHESTER, NEW YORK.

TRANSOM-SASH PIVOT.

SPECIFICATION forming part of Letters Patent No. 585,840, dated July 6, 1897.

Application filed October 29, 1896. Serial No. 610,459. (No model.)

To all whom it may concern:

Be it known that I, THOMAS F. DOLEN, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented new and useful Improvements in Sash Pivots or Centers, of which the following is a specification.

This invention relates to sash pivots or centers for the hanging of window-sash, transoms, screens, and the like; and it has for its object a simple and easily-applied pivot that is not liable to get out of order and which shall be so constructed and arranged as to hold the sash, transom, or screen open at any desired angle.

The invention consists in features of construction and novel combination of parts in a sash center or pivot, as hereinafter described and claimed.

In the annexed drawings, illustrating the invention, Figure 1 is a partly-sectional elevation of a window-sash and frame or casing, showing the pivots or centers applied. Fig. 2 is a perspective of the cam-recessed plate forming a stationary bearing for the sash-pivot. Fig. 3 is a perspective of the sash-pivot and its casing and attaching-plate. Fig. 4 is a vertical longitudinal section through the plate and pivot casing that is attached to the sash. Fig. 5 is a rear view of the said plate with the casing and pivot in cross-section.

Referring to the drawings, the numeral 1 designates the vertical portions of a window casing or frame, and 2 denotes the corresponding portions of the sash.

To each part 1 of the window-frame is secured a plate 3, in the face of which is formed a cam-recess 4, that is deepest at its lower end. This deepest portion of the cam-recess 4 is preferably vertical, and the shallower portion of the recess is extended upward and is gradually inclined or curved to one side edge of the plate, the bottom or rear wall of the recess being gradually beveled from one end to the other. Each plate 3 is a counterpart of the other and one is provided for each side of the window-frame.

There is provided for attachment to each side of the sash 2 a plate 5, having on its rear side a casing 6, of cylindrical form, that

is received in a mortise of the sash-frame. In the casing 6 and projecting through a central aperture of the plate 5 is a pivot-pin 7, having an outer end portion 8, that is squared to fit into the groove or recess 4 without turning therein. The window-sash and the attached plate 5 and casing 6 are, however, capable of turning on the cylindrical portion of said pivot-pin.

On the inner end of the pivot-pin 7 is a circular head 9, that extends across the bore of the casing 6 and is adapted to slide therein against the pressure of a spring 10, that normally forces the squared end 8 of the pivot-pin outward and holds it within the beveled or cam recess 4 of the bearing-plate. In the periphery of the head 9 is a series of semi-circular notches 11 to engage successively with a spring-detent 12, consisting, preferably, of a bow-spring one end of which is secured to a stud 13, while the other end is bent upon itself to form a guide 14, that loosely engages a pin 15, which affords a bearing for the loose end of the said spring-detent. The bowed portion of the spring-detent 12 is adapted to fit consecutively the several notches of the head 9, and will exert sufficient pressure therein to hold the sash, transom, or screen at any angle to which it may be turned, whether the sash be closed or partly open.

It will be understood, of course, that the spring-detent 12 is carried by the casing 6, which is secured by its plate 5 to the sash-frame, while the pivot-pin 7 is stationary by reason of the engagement of its squared end 8 in the bevel or cam groove or recess 4 of the bearing-plate 3, one on each side.

The plates 3 and 5 are set in flush with the frames to which they are attached and may be secured by screws 16 or otherwise.

To place the sash, transom, or screen in position, it is only necessary to introduce it in an angling direction into the frame 1 with one of the pivot-pins opposite to or in engagement with one of the cam-recesses 4, and then by bringing the other end of the sash-frame into contact with the casing-frame in such manner as to force back the pivot-pin 7 at that end the said pin may be readily made to engage in the cam recess or groove 4, arranged

for its reception. The engagement of the sash with the window frame or casing can be most readily accomplished at the shallow ends of the cam-grooves 4, though it may be also effected at other points. In order to disengage the sash and remove it from the window-frame, it is only necessary to partly open the sash by rotating it in the proper direction and then lift it, so as to cause the pivot-pins to traverse the cam-slots 4 from their deeper ends to their shallow exit ends at the edges of the plates, the pins 7 being pushed back by the beveled or cam surface of the groove 4, so as to facilitate the disengagement of the sash. Thus the sash can be at any time readily taken out without removing the screws that secure the sash pivots or centers.

When the squared ends 8 of the pivot-pins 7 are engaged in the deeper portions of the cam grooves 4, the said pins will be held or locked in stationary position for the sash-frame to rotate, through casing 6, on the heads 9 of the said pivot-pins. The spring-detents 12 will hold the sash in any position to which it may be turned and will at the same time permit its ready adjustment in opening or closing.

Although I have shown the sash-pivots as being arranged at the sides of the sash-frame,

it is obvious that they may be arranged at top and bottom, if preferred.

The device can be readily applied to rabbeted sash or to sash that is not rabbeted, and it may be made of any size to suit the weight and dimensions of the sash.

What I claim as my invention is—

In a sash pivot or center, the combination with the bearing-plate having a cam groove or recess therein, of a plate provided on its rear side with a casing, a pivot-pin arranged in said casing and having a squared end projecting through the plate and adapted to engage in the said cam groove or recess of the bearing-plate, the said pivot-pin being provided on its inner end with a circular head having a series of notches in the periphery, a detent to engage said notches, and a spring to force the said pivot-pin outward and hold it to its engagement with the said cam groove or recess, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

THOMAS F. DOLEN.

Witnesses:

LOUIS D. SHORT,
EDWARD HANNA.