

(No Model.)

T. E. WARDWELL.
FASTENER FOR MEETING RAILS OF SASHES.

No. 531,453.

Patented Dec. 25, 1894.

Fig. 1.

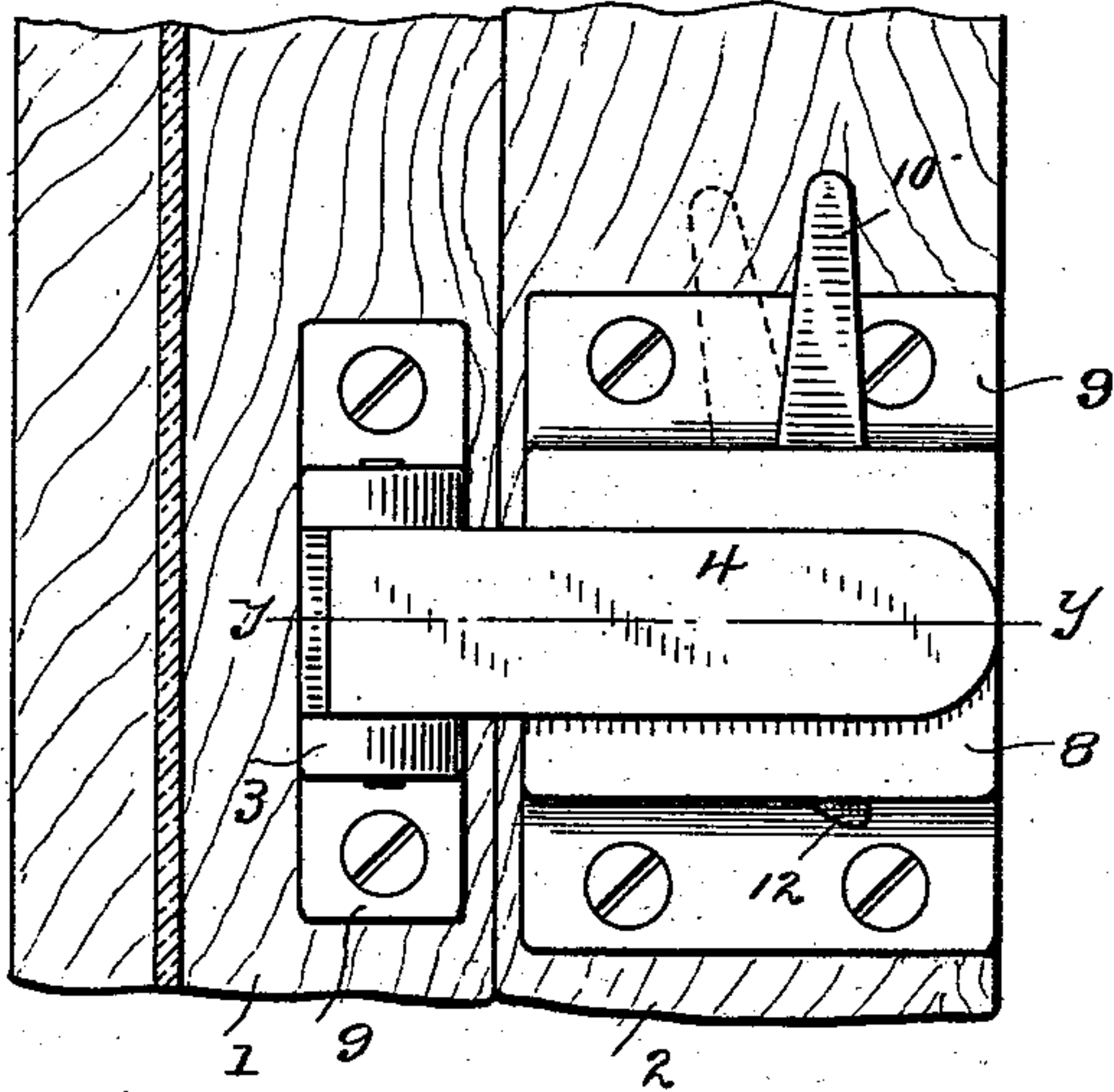


Fig. 2.

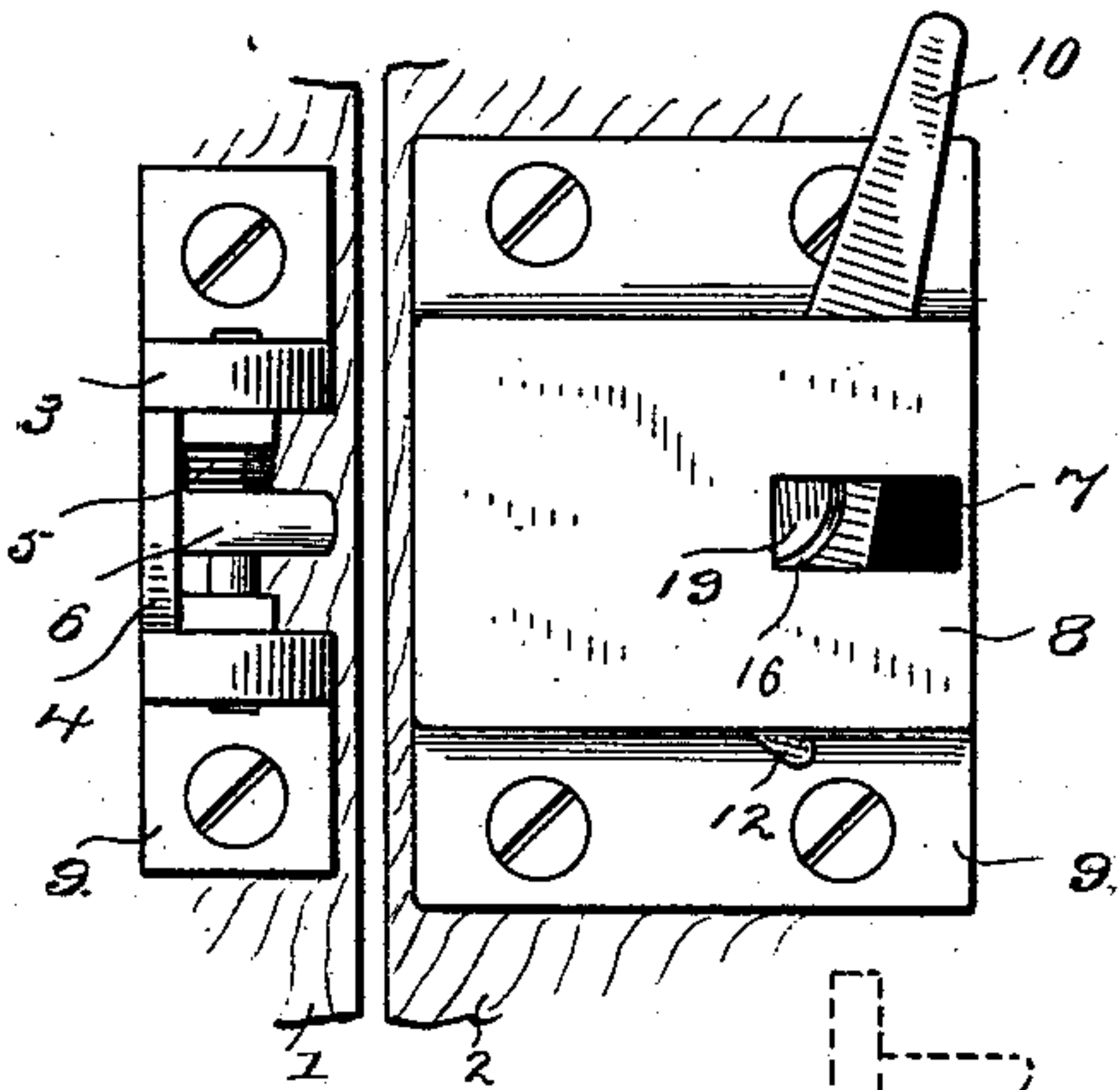


Fig. 3.

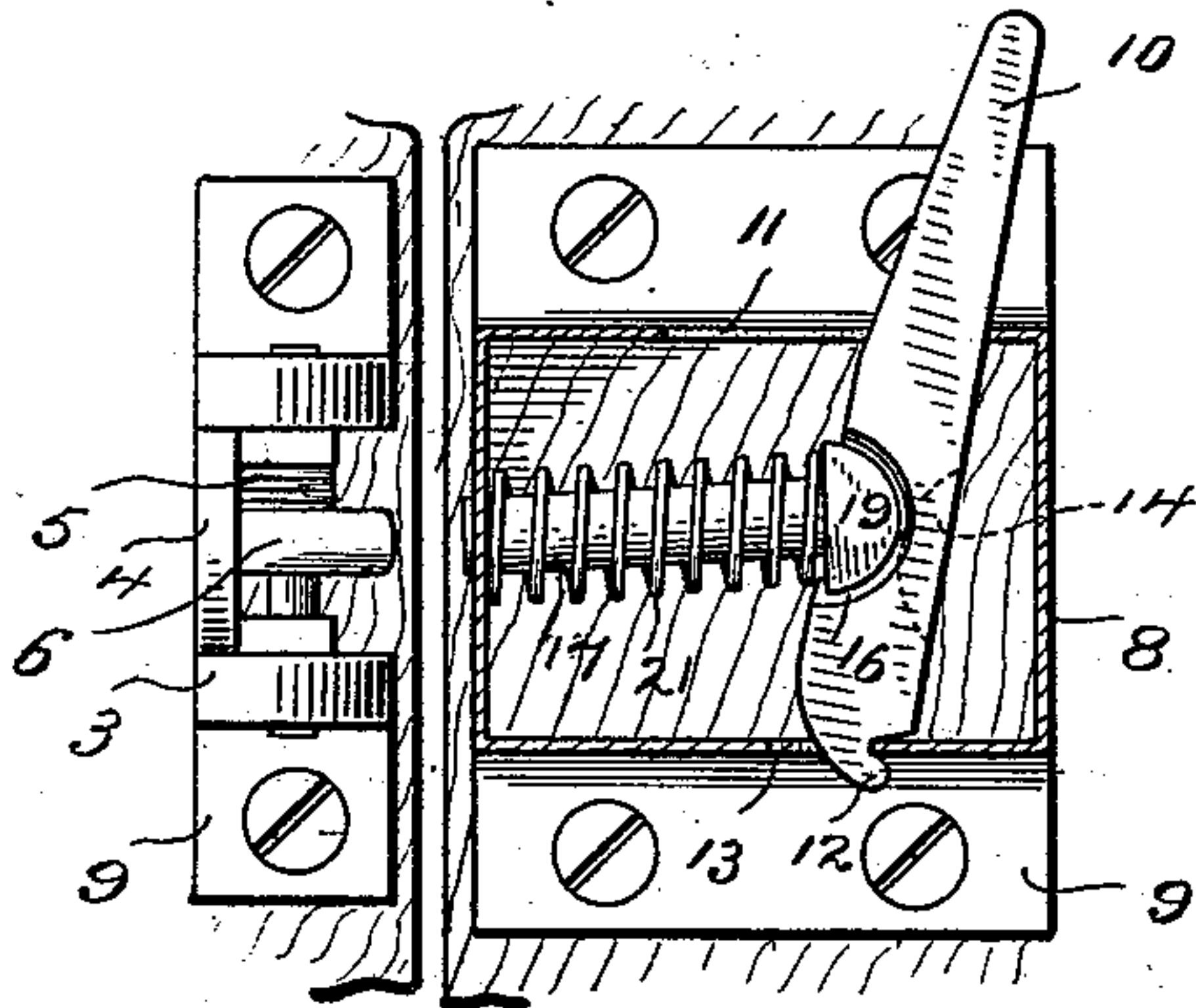


Fig. 6.

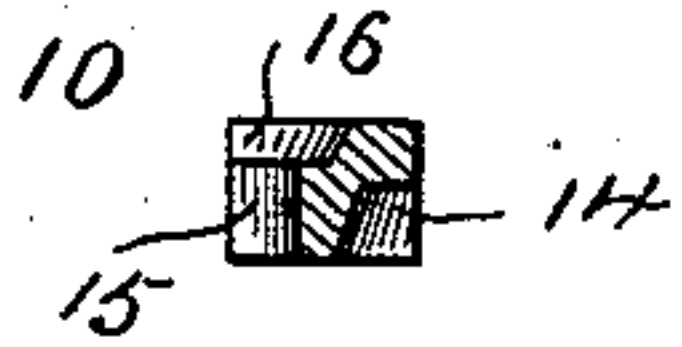


Fig. 5.

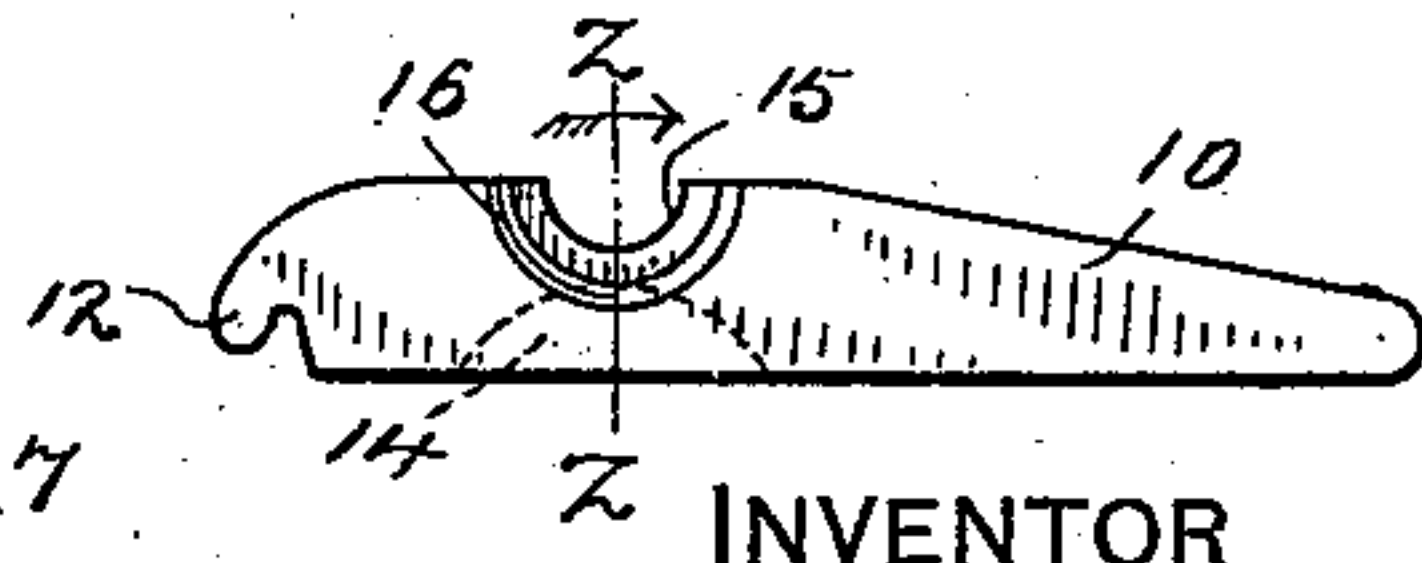
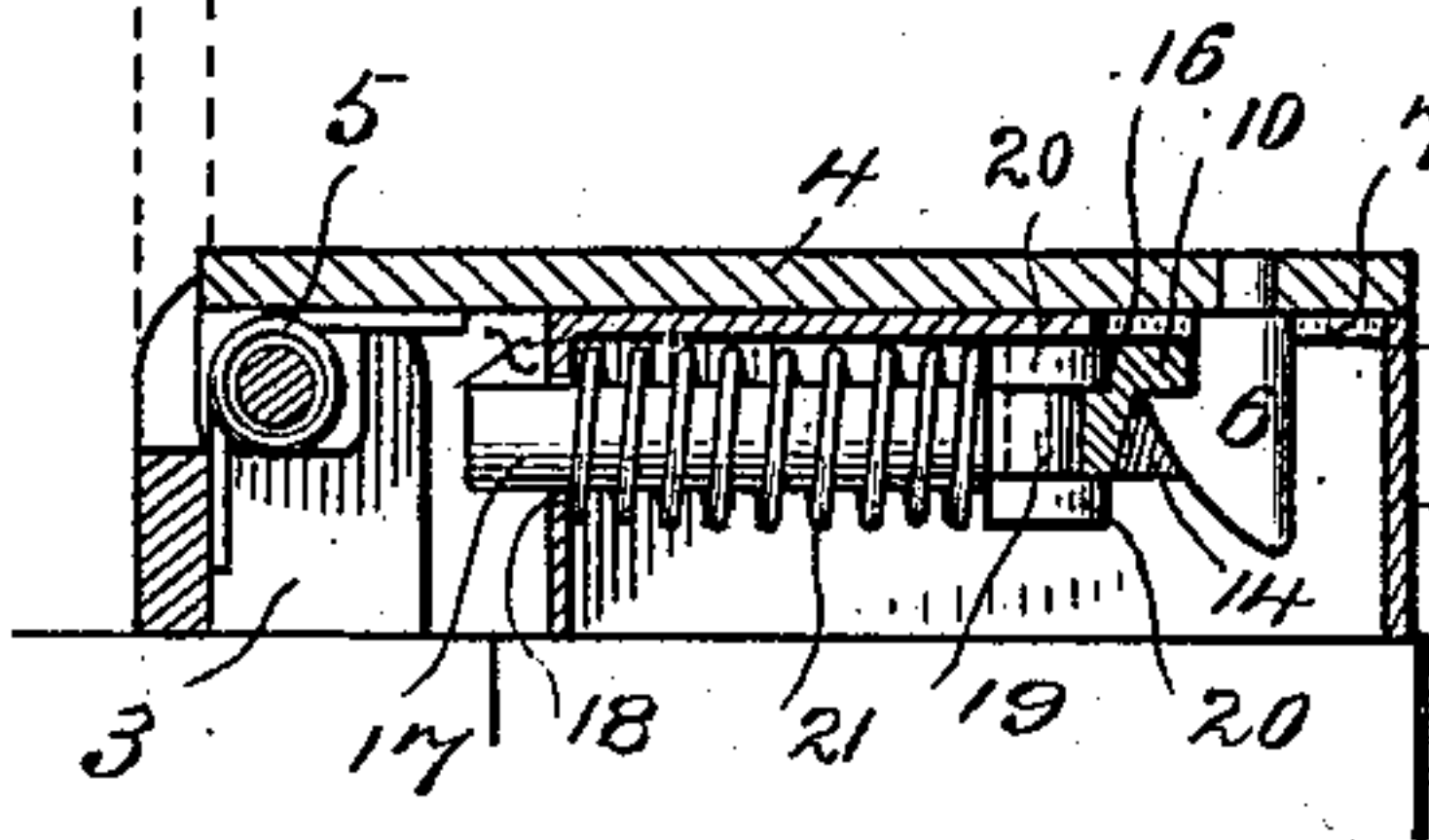


Fig. 4.



WITNESSES

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THEODORE E. WARDWELL, OF STAMFORD, CONNECTICUT.

FASTENER FOR MEETING-RAILS OF SASHES.

SPECIFICATION forming part of Letters Patent No. 531,453, dated December 25, 1894.

Application filed March 26, 1894. Serial No. 505,061. (No model.)

To all whom it may concern:

Be it known that I, THEODORE E. WARDWELL, a citizen of the United States, residing at Stamford, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Fasteners for Window-Sashes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to produce a fastener for meeting rails of sashes in which the number of parts and general cost of production shall be reduced to the minimum, in which rivets and riveting shall be dispensed with, which shall be so constructed that if the sashes are wedged apart the lever will be locked by the act of wedging, which shall present a flat top surface so as to avoid marring the top of the casing should the lower sash be raised to its extreme height and which shall be so constructed that no portion of the fastener shall project beyond the face of the sash in position to interfere with a screen.

With these ends in view I have devised the simple and novel fastener which I will now describe referring by numbers to the accompanying drawings forming part of this specification, in which—

Figure 1 is a plan view of my novel fastener in the locked position, as in use; Fig. 2, a similar view the parts being in the unlocked position; Fig. 3, a horizontal section on the line *xx* in Fig. 4 looking down, the locking catch being removed; Fig. 4, a section on the line *yy* in Fig. 1; Fig. 5, a view of the locking lever detached, and Fig. 6 is a section of the locking lever on the line *zz* in Fig. 5.

1 denotes the lower rail of the upper sash, 2 the upper rail of the lower sash, and 3 a plate adapted for attachment to rail 1 which carries the locking arm 4 and a spring 5 by which said arm is thrown to the raised position, see dotted lines in Fig. 4, when released. At the outer end of this locking arm is a catch 6 which in the locking position passes through an opening 7 in a housing 8 which is adapted for attachment to rail 2. Plate 3 and housing 8 are each cast in a single piece and are provided with flanges 9 having screw holes

whereby said parts are attached to the meeting rails of the respective sashes.

10 denotes the locking lever the free end of which extends through a slot 11 in one side of the housing the other end being provided with a hook 12 which is adapted to pass through a slot 13 in the opposite side of the housing and to engage the wall of the housing at the end of the slot as is clearly shown in Fig. 3. The locking lever is provided in one side with a recess 14 which is adapted to receive catch 6 to retain the locking arm in the locked position as in Fig. 4, which see in connection with Fig. 2. On the opposite side of the locking lever is a notch 15 and above and below said notch are curved grooves 16.

17 denotes a plunger the outer end of which is adapted to pass through a hole 18 in the back of the housing and the inner end of which is provided with a head 19 having flanges 20 which engage grooves 16 in the locking lever, the portion of the head between the flanges lying in notch 15.

21 denotes a strong spring within the housing the ends of which bear respectively against the inner side of the housing and against head 19 as clearly shown in Figs. 3 and 4, the action of this spring being to hold the locking lever in the locking position and also to draw the two sashes together.

It will be understood from Fig. 3 that as seen in said figure the left end of spring 21 will act to force rail 2 toward the left and the other end of said spring will act to draw rail 1 toward the right.

It will be seen furthermore that should an implement be introduced from the outer side between the meeting rails and wedge the sashes apart with a view to manipulating the locking lever or for any purpose whatever this separation of the meeting rails will draw the locking arm and locking lever backward against the power of spring 21. As slot 11 in the housing is only made long enough to permit the necessary amount of oscillation of the locking lever it follows that when the sashes are wedged and forced apart the locking lever will be drawn back toward the rear end of the slot, but without disengagement from the locking arm, thereby locking the arm in the locking position as it will be impossible to

move the lever backward far enough to release the catch owing to the fact that it will strike the rear end of slot 11.

It will be seen furthermore that the construction of head 19 and the locking lever is such that as soon as the parts are assembled spring 21 will act to hold them in place thus doing away with rivets and riveting, the fastener as a whole consisting of the fewest possible number of parts and being practically impossible to get out of repair.

The operation will be clearly understood from the drawings. The normal action of spring 21 is to throw the locking lever as far forward as slot 11 will permit as in Figs. 2 and 3. To lock the sashes it is necessary to move the lever backward as indicated in dotted lines in Fig. 1 and swing the locking arm downward so that the catch will enter opening 7 after which the locking arm is released. It is of course quite practicable to make the locking automatic when the locking arm is pressed down by simply so shaping catch 6 and the top of the locking lever that the lever will be forced backward by the engagement of the catch therewith against the power of the spring. In practice however, I prefer not to make the locking automatic and to use as strong a spring as practicable. I have therefore shown the parts so designed that a backward movement of the lever is required in order to permit the catch to enter opening 7.

Having thus described my invention, I claim—

1. In a fastener of the character described the combination with a locking arm having a catch on its under side, of a housing having an opening to receive the catch, a locking lever adapted to engage said catch and a spring actuated plunger which acts to hold the locking lever in the locking position.

2. The combination with a locking arm having a catch 6, of a housing having an opening 7 to receive said catch and slots 11 and 13, a locking lever adapted to engage the catch, the free end of said locking lever passing through slot 11 and the opposite end being provided with a hook which passes through slot 13 and engages the wall of the housing, a plunger 17 one end of which passes through the wall of the housing the other end being provided with a head engaging the locking lever and a spring bearing against the head of the plunger and the housing and acting to hold the locking lever in the locking position.

In testimony whereof I affix my signature in presence of two witnesses.

THEODORE E. WARDWELL.

Witnesses:

A. M. WOOSTER,
S. V. RICHARDSON.