

(No Model.)

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

No. 528,833.

Patented Nov. 6, 1894.

Fig. 1.

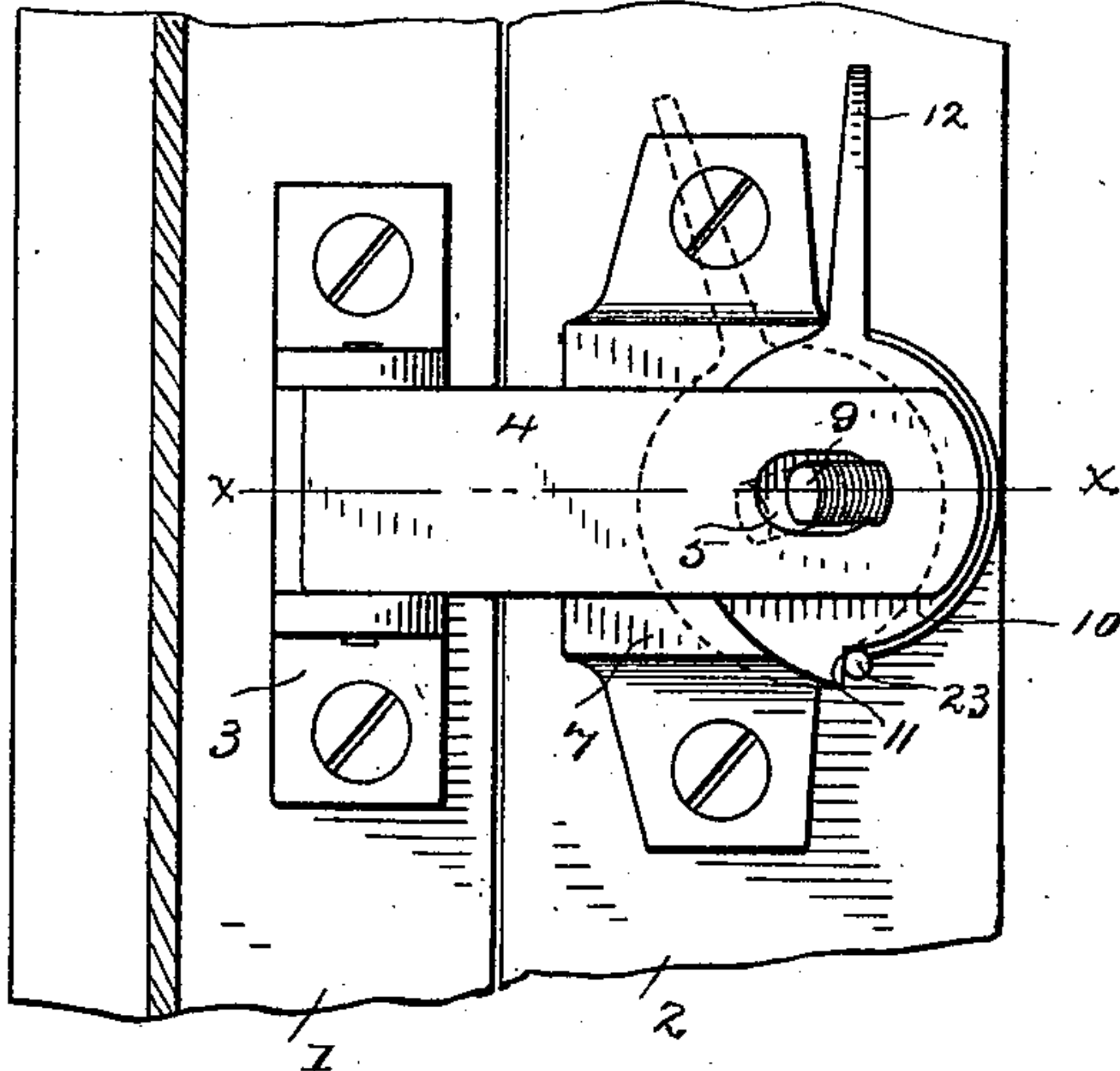


Fig. 2.

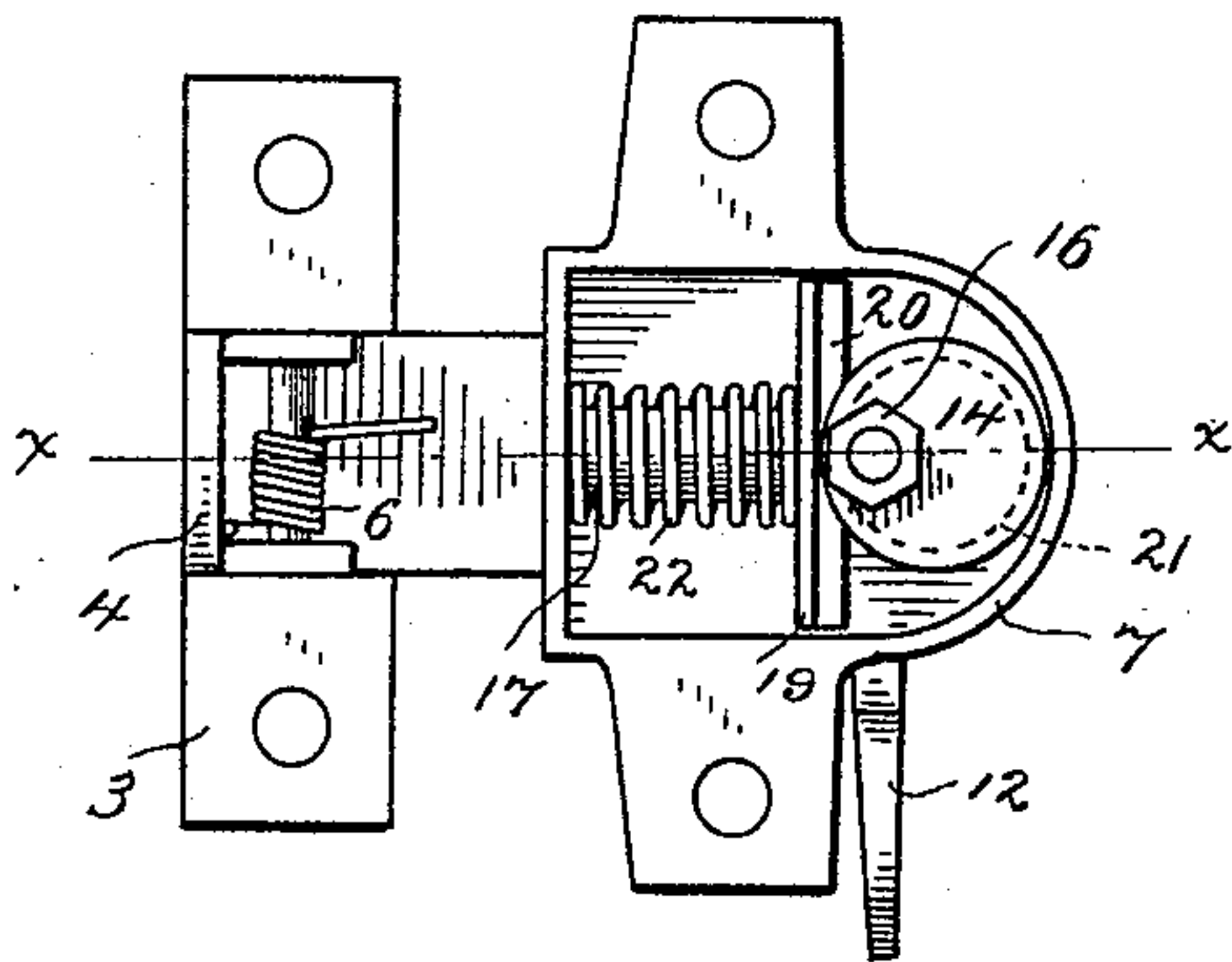


Fig. 3.

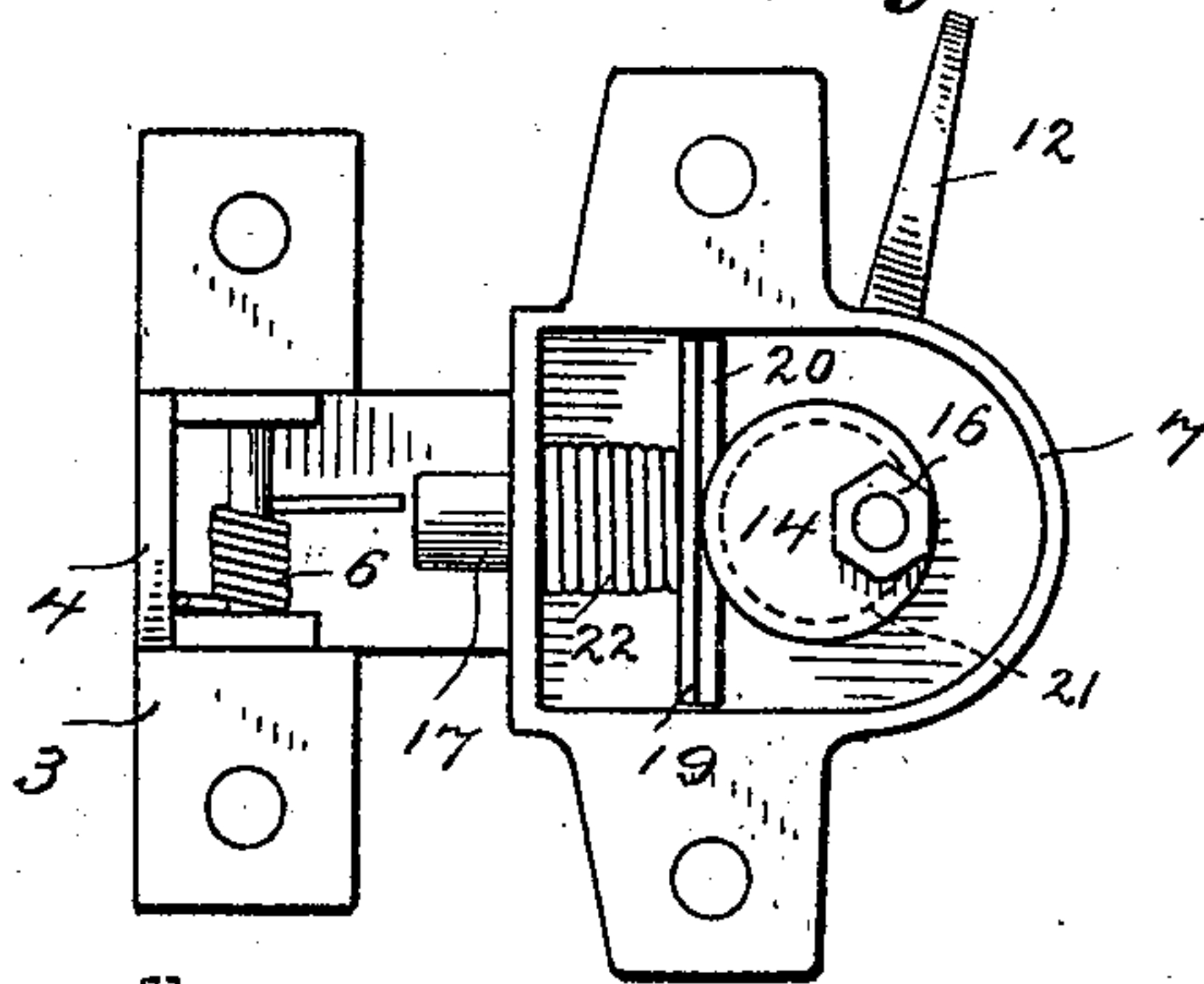


Fig. 4.

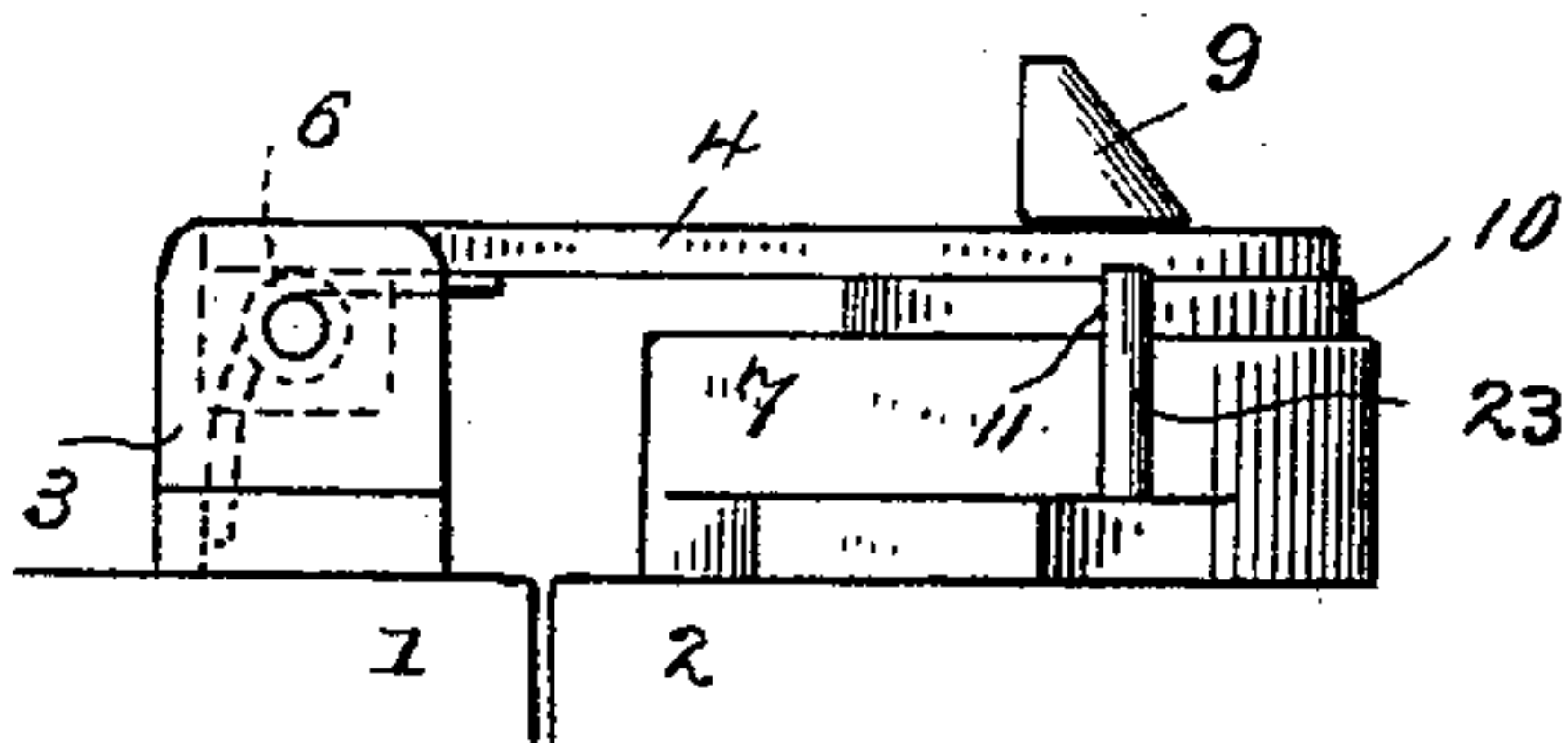


Fig. 5.

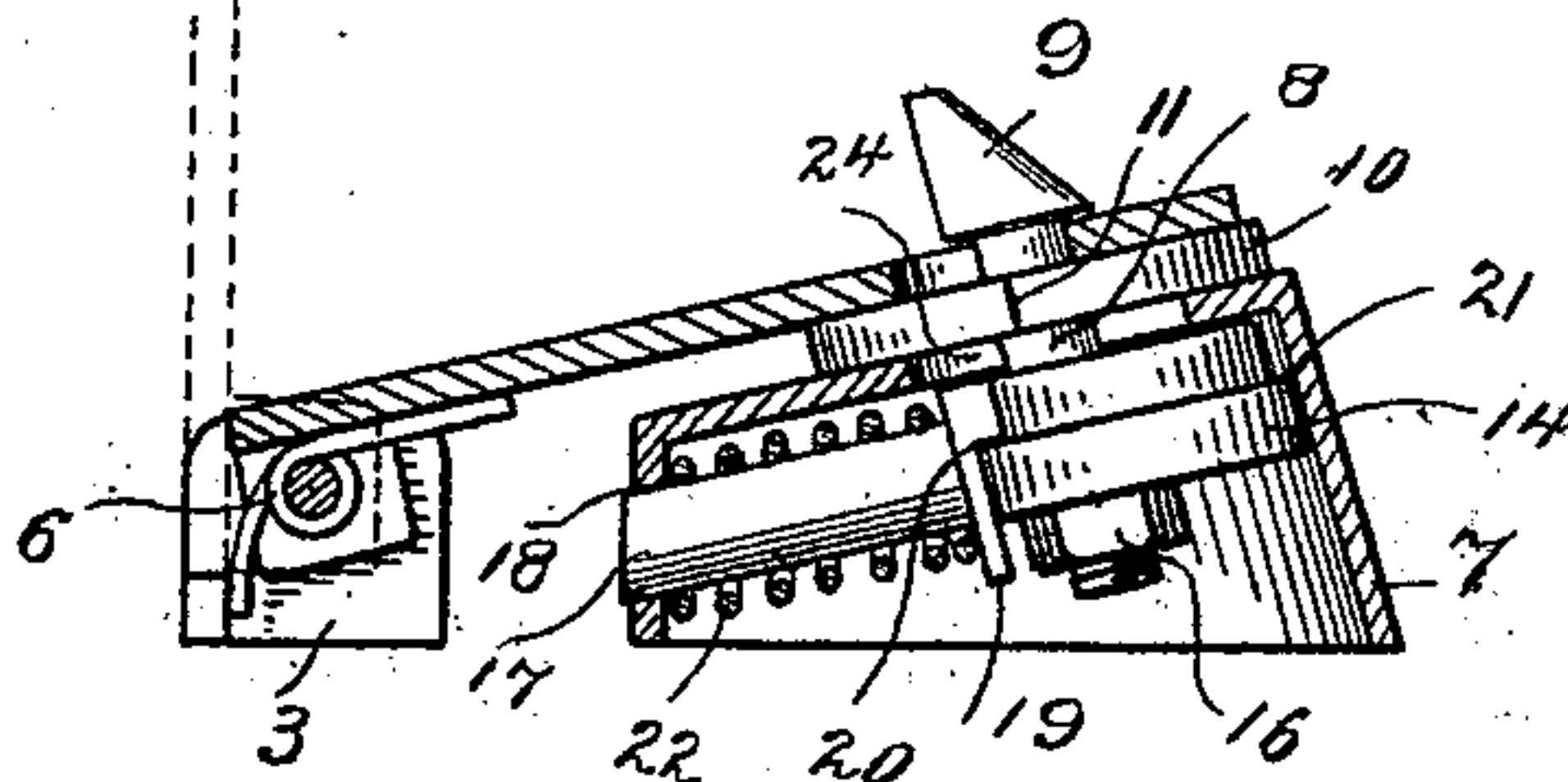
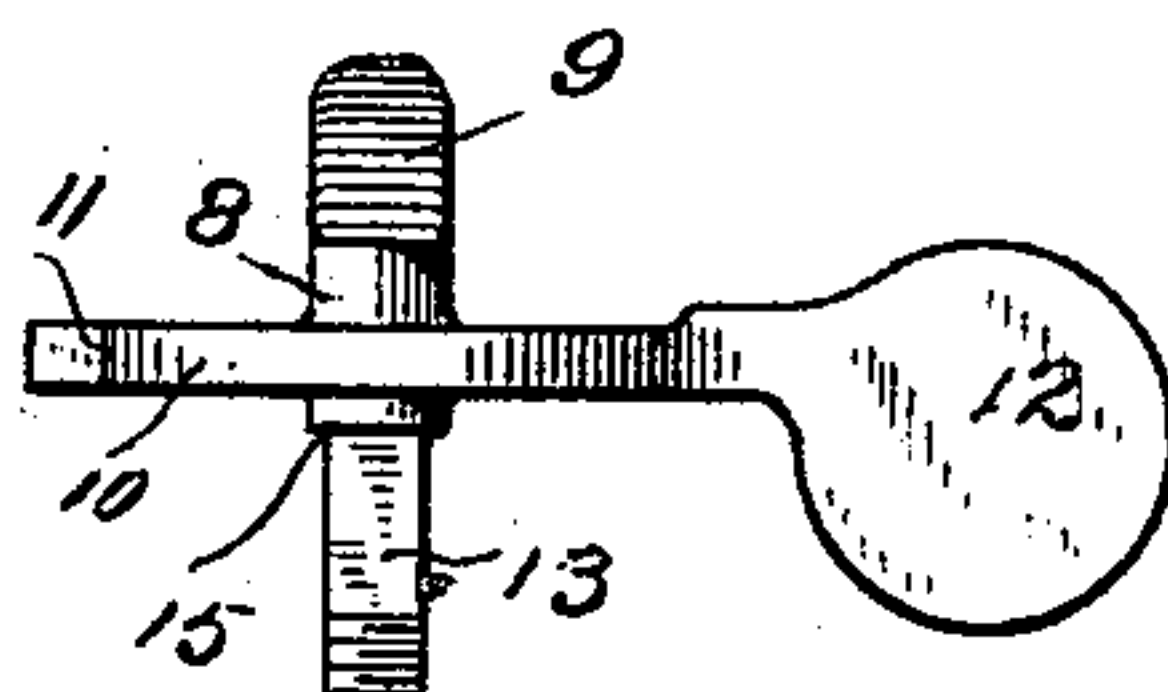


Fig. 6.



WITNESSES

H. A. Lamb
S. V. Richardson.

INVENTOR

Theodore E. Wardwell
By A. M. Wooster
Atty.

UNITED STATES PATENT OFFICE.

THEODORE E. WARDWELL, OF STAMFORD, CONNECTICUT.

FASTENER FOR MEETING-RAILS OF SASHES.

SPECIFICATION forming part of Letters Patent No. 528,833, dated November 6, 1894.

Application filed March 26, 1894. Serial No. 505,060. (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 which shall be simple in construction, inexpensive to produce, not liable to get out of repair, so constructed as to be out of the way of a screen, which will lock by a simple downward movement of the arm, will draw the sashes tightly together by oscillation of an eccentric and which while perfectly secure against tampering from the outside will be released by a spring when a reverse movement of the finger piece is made.

With these ends in view I have devised the novel construction of which the following description in connection with the accompanying drawings is a specification, numbers being used to designate the several parts.

Figure 1 is a plan view illustrating my novel fastener in use the parts being in the locked position, but the eccentric not having been turned to draw the sashes together; Fig. 2, an inverted plan view corresponding with Fig. 1; Fig. 3, an inverted plan view after the eccentric has been turned; Fig. 4, a side elevation corresponding with Fig. 1; Fig. 5, a section on the line xx in Figs. 1 and 2 showing, however, a modification in the shape of the case, the arm in this form being locked in an inclined position, and Fig. 6 is an elevation of the shaft, locking catch, disk and finger piece detached.

1 denotes the lower rail of the upper sash, 2 the upper rail of the lower sash, and 3 a plate adapted to be secured to rail 1 and having hinged thereto a locking arm 4 which is provided at its outer end with an opening 5 adapted to receive the locking catch presently to be described.

6 denotes a spring lying under the locking arm the action of which is to throw the lock-

ing arm to the raised position as soon as it is released, and 7 a housing which is adapted to be secured to rail 2 and which carries the locking mechanism.

8 denotes a shaft, 9 a locking catch, 10 a disk which is provided on its perimeter with a shoulder 11, and 12 a finger piece. These parts are all preferably cast in one piece.

In assembling the shaft is passed down through a slot 24 in the top of the housing the disk resting upon the housing.

13 denotes a portion of the shaft which is made angular and carries an eccentric 14 which is held in position against a shoulder on the shaft by a nut 16.

17 denotes a plunger the outer end of which passes through an opening 18 in the housing and the forward end of which is provided with a cross piece 19 having a shoulder 20.

Eccentric 14 is provided with a shoulder 21 which engages shoulder 20 thereby preventing the cross piece from dropping out after the parts are assembled.

22 denotes a spring surrounding the plunger, one end of which bears against the housing, the other against the cross piece, the action of which is to force the cross piece forward and keep shoulder 20 in engagement with shoulder 21.

23 is a stop on the housing which is adapted to be engaged by shoulder 11 on the disk and serves as a fulcrum when the locking catch is pressed back to release the locking arm. This stop is also engaged by the finger piece when the latter is turned as in Fig. 3 to draw the sashes together.

The operation is as follows: In Figs. 1 and 2 the locking arm has been pressed down to the locking position, the locking being automatic. When the locking arm is pressed down locking catch 9 passes into opening 5. Continued pressure upon the locking arm causes the latter to ride down the incline of the catch spring 22 yielding and the shaft moving backward in slot 24 in the housing, until the entire catch has passed through the opening when the spring will again force the locking catch, shaft, eccentric, &c., forward as in Fig. 5, so that the locking arm is held firmly in the locked position and the power of spring 22 is exerted to draw the

sashes together, it being obvious from Fig. 5 that the inner end of the spring must act to draw rail 1 outward and the outer end of said spring must act to force rail 2 inward. In order to prevent the possibility of tampering from the outer side the shaft, eccentric and disk may be given a partial rotation by means of the finger piece until the latter is in engagement with stop 23. This changes the parts from the position shown in Figs. 1, 2, 4 and 5 to the position shown in Fig. 3. Spring 22 is compressed between the cross piece and the wall of the housing until it is solid as in Fig. 3. In this position of the parts there is no yield whatever of any part. The rails of the sashes are drawn close together and are locked positively thus making it impossible to wedge the sashes apart. In order to unlock it is first necessary to give the finger piece shaft, eccentric and locking catch a partial revolution—that is, from the position shown in Fig. 3 to the position shown in Figs. 1, 2, 4 and 5. This, however, still leaves the locking arm locked in the housing as the locking catch is so shaped as to engage and hold the locking arm in any position to which it may be turned and not release it until moved backward out of engagement. To unlock the locking arm the operator now presses back the finger piece moving it from the position shown in full lines in Fig. 1, to the position shown in dotted lines, the disk and finger piece acting as a lever and stop 23 serving as the fulcrum therefor. This movement carries the locking catch backward in opening 5 so that the locking arm is released and spring 6 will at once act to throw it to the raised position as indicated by dotted lines in Fig. 5. When the operator releases his hand from the finger piece it at once returns to the position shown in Figs. 1, 2, 4 and 5, that is,

a position in which locking takes place automatically as soon as the locking arm is pressed down.

Having thus described my invention, I claim—

1. The combination with a locking arm having an opening 5, of a housing having a slot 24, a shaft passing through said slot and carrying a locking catch adapted to engage the opening in the locking arm and an eccentric 14, and a spring actuated plunger carrying a cross piece engaging the eccentric, rotation of said shaft and eccentric acting to draw the sashes together and to compress the spring.

2. The combination with a locking arm having an opening 5, of a housing having a slot 24, a shaft passing through said slot and carrying a locking catch adapted to engage the opening in the locking arm and an eccentric within the casing having a shoulder 21 and a spring actuated plunger having a cross piece provided with a shoulder 20 which engages shoulder 21 whereby the parts are held in position.

3. The combination with a locking arm having an opening 5, of a housing having a slot 24 and a stop 23, a shaft passing through said slot and carrying a locking catch, a disk 10 having a shoulder 11, a finger piece, and an eccentric within the housing, and a spring actuated plunger which bears against the eccentric and acts to force the shaft and locking catch to 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.