

(No Model.)

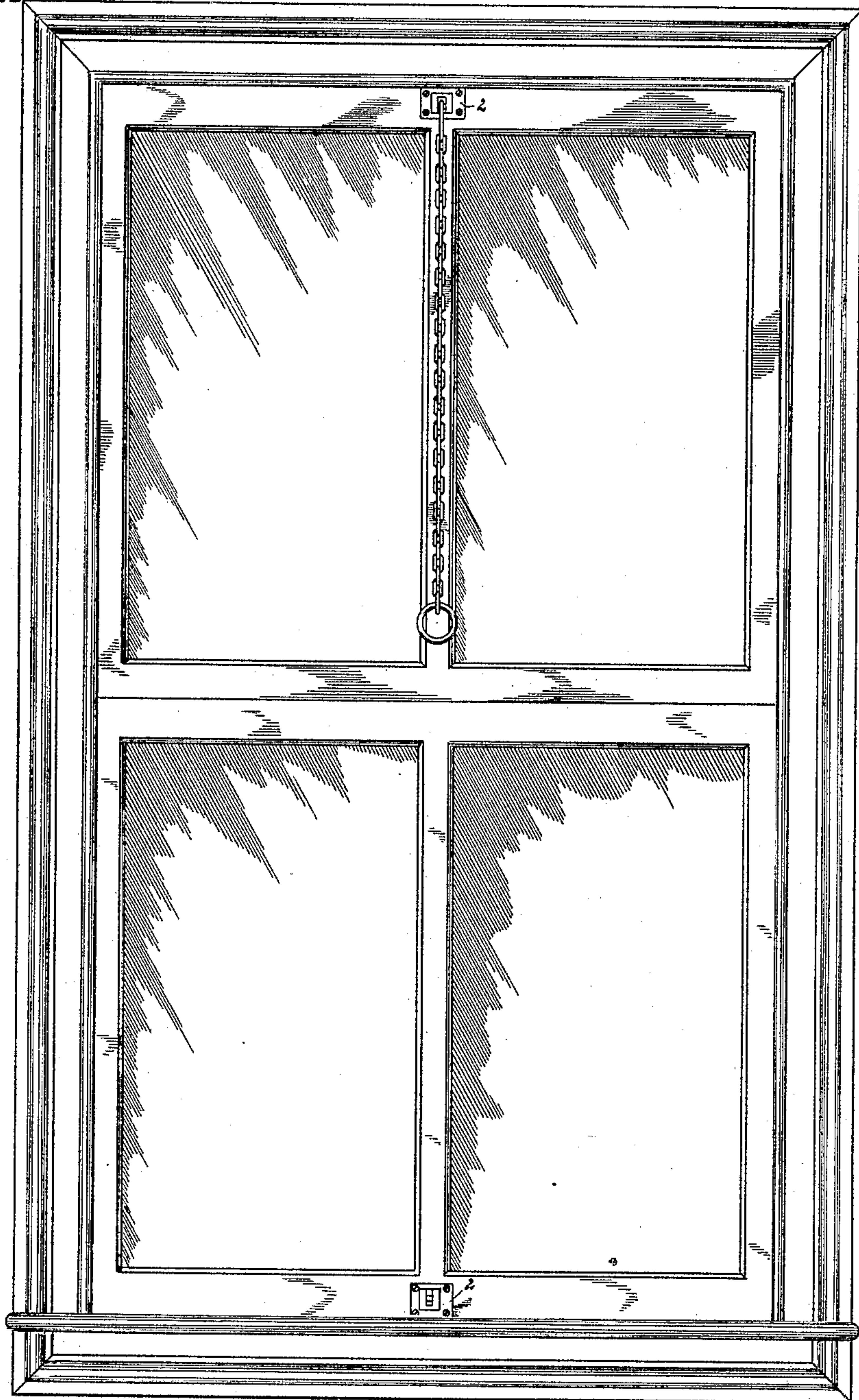
2 Sheets—Sheet 1.

F. F. SCHUMANN.
SASH FASTENER.

No. 412,987.

Patented Oct. 15, 1889.

Fig. 1.



WITNESSES

C. M. Newman

Etta J. Pettit

INVENTOR

Ferdinand F. Schumann
By *A. M. Broster*
att.

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Fig. 2.

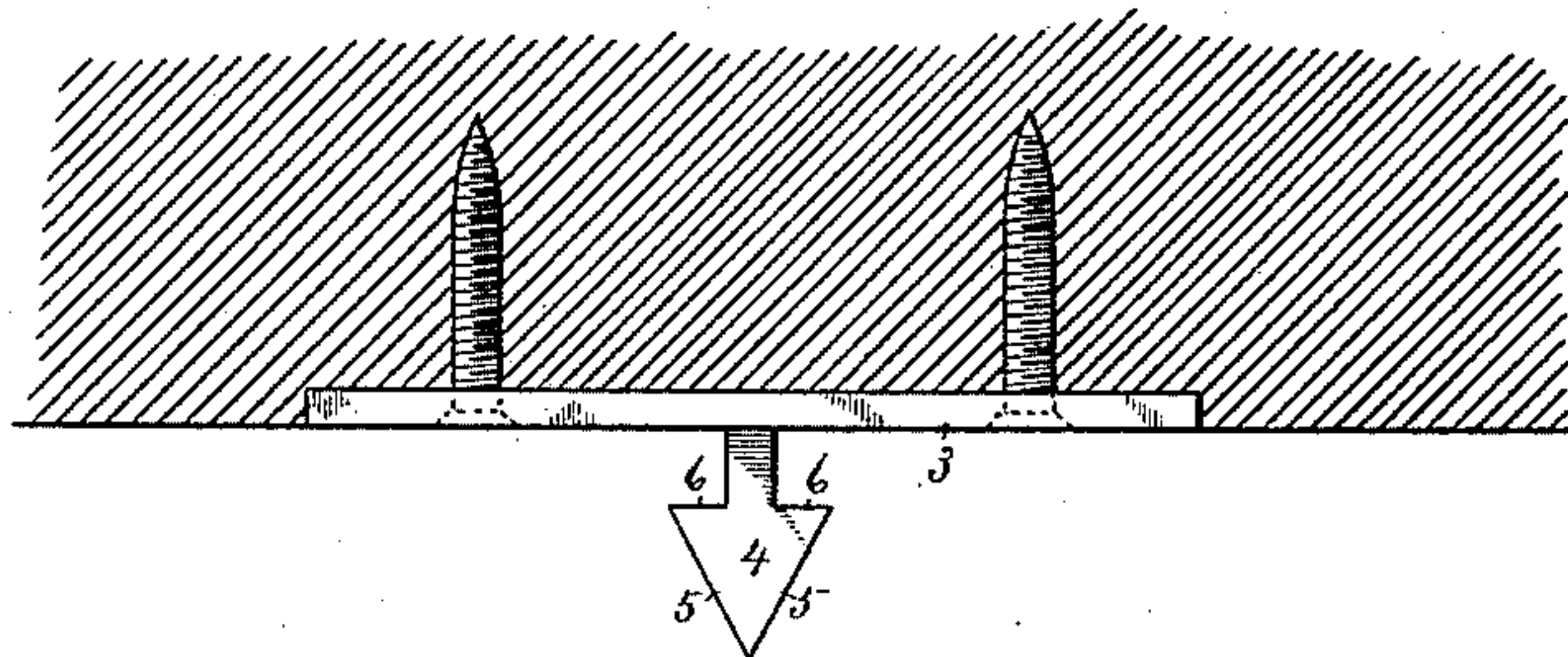


Fig. 3.

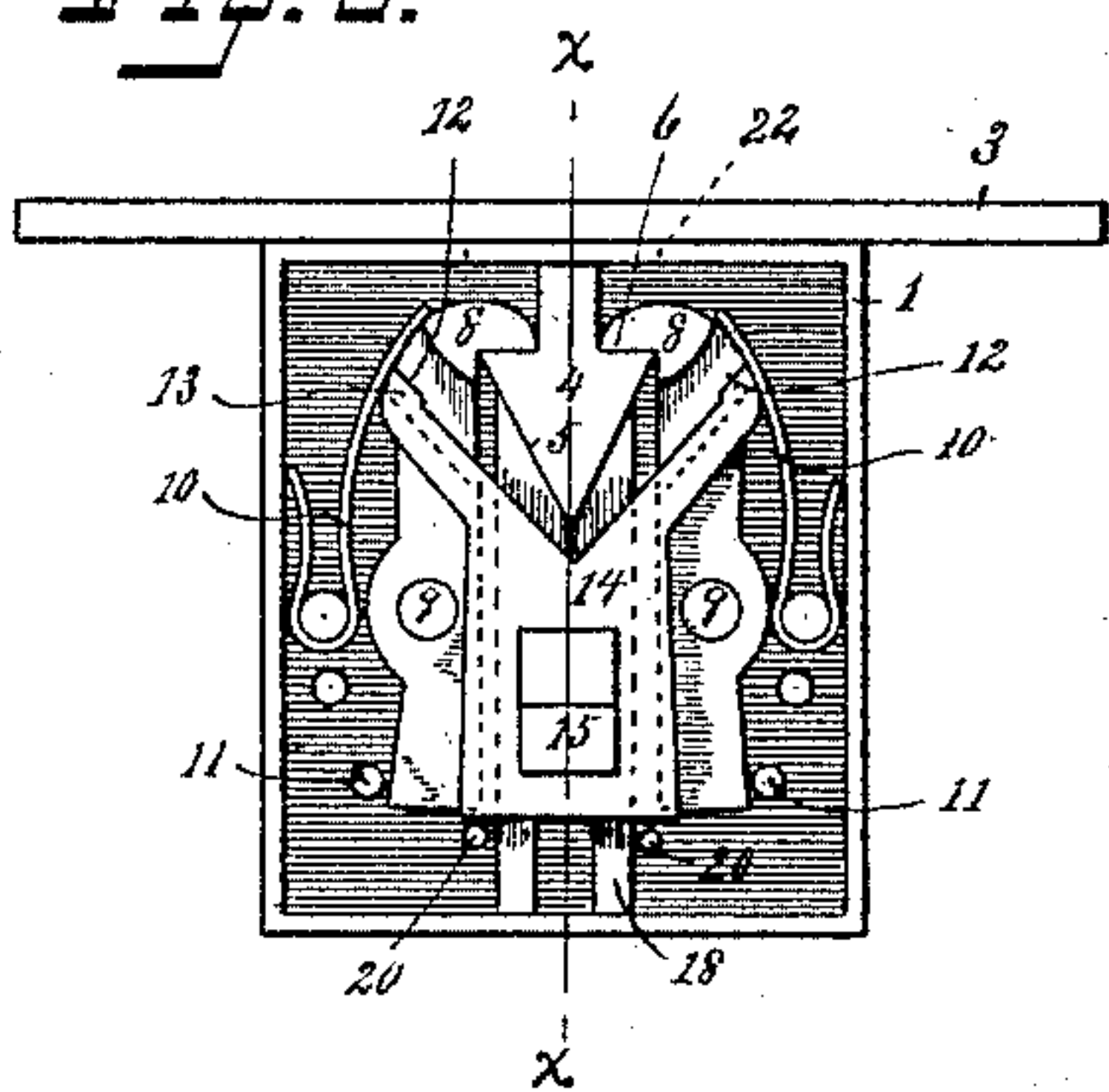


Fig. 4.

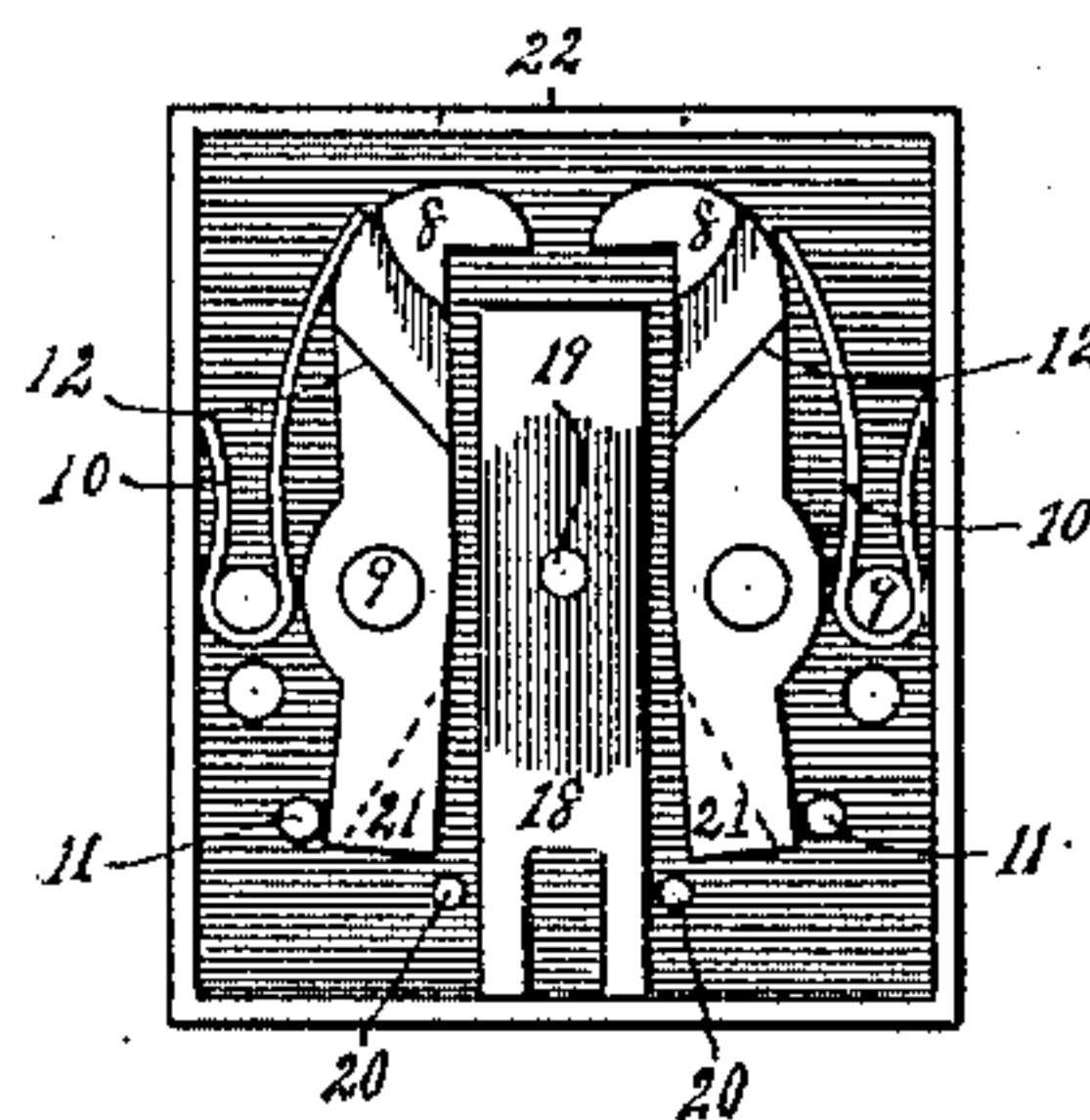


Fig. 5.

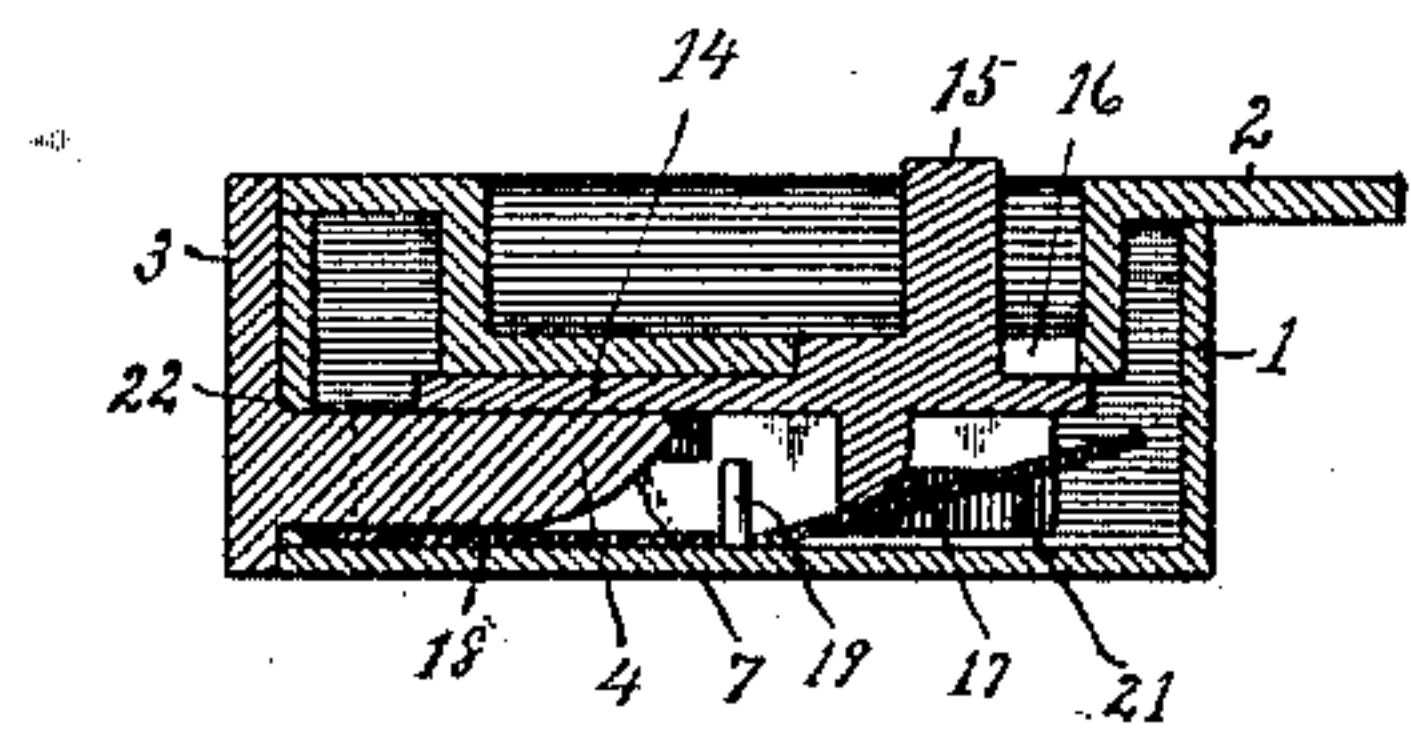


Fig. 7.

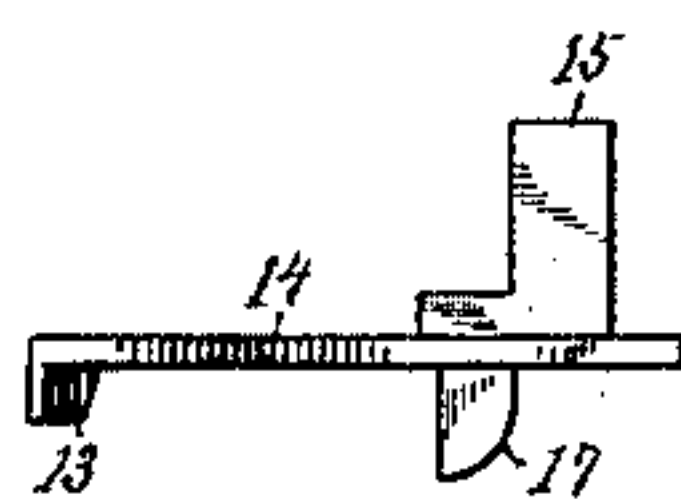
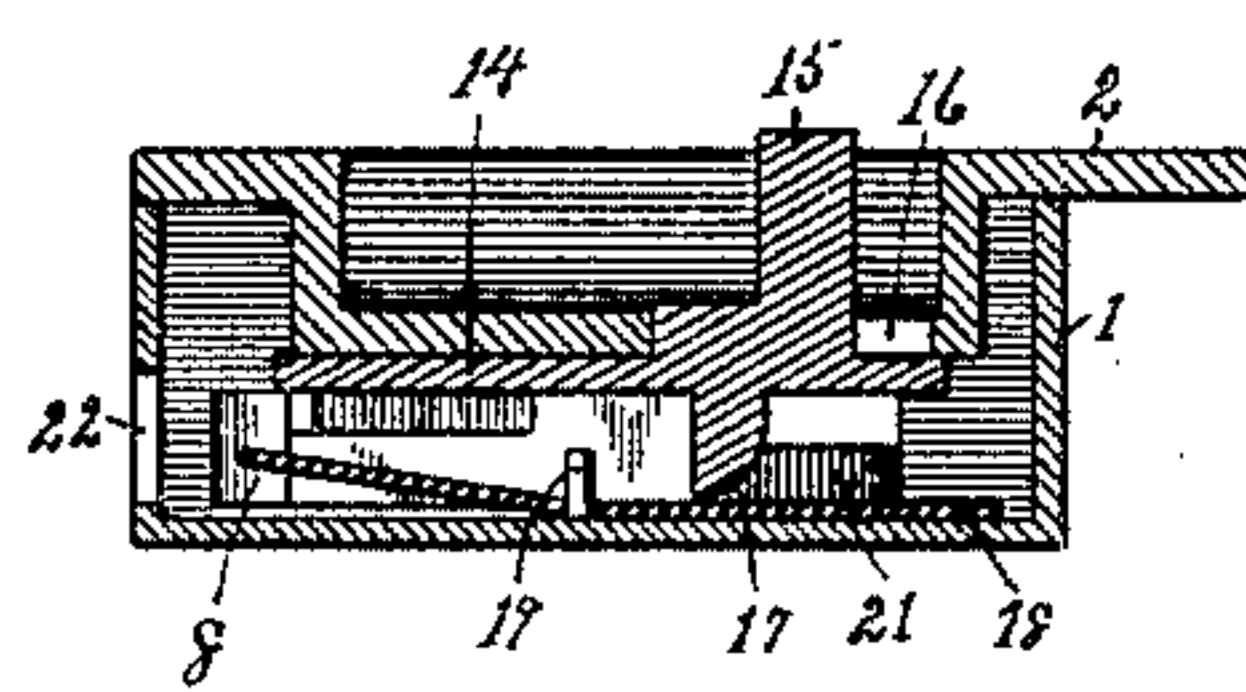


Fig. 6.



WITNESSES

C. M. Newman,
Ella F. Pettit

INVENTOR

Ferdinand F. Schumann
By A. M. Wooster atty.

UNITED STATES PATENT OFFICE.

FERDINAND F. SCHUMANN, OF BROOKLYN, NEW YORK.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 412,987, dated October 15, 1889.

Application filed March 29, 1889. Serial No. 305,228. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND F. SCHUMANN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Sash-Fasteners; 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 novel automatic sash-fastener adapted to both upper and lower sashes, which shall be simple and economical in construction, practically impossible to get out of order, and which will rigidly lock the sash so that it cannot be disengaged by pressing back the locking-catches, but only by manipulation of a finger-piece.

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 denote the several parts.

Figure 1 is an elevation of a pair of window-sashes and the casing, illustrating the application of my novel locks thereto, the sashes being in the locked position; Fig. 2, an enlarged view showing an upper sash in the unlocked position and illustrating the application of my invention thereto; Fig. 3, an elevation showing the parts in the locked position, the face-plate being removed; Fig. 4, an elevation showing the locking-catches and locking-spring, the face-plate, finger-piece, and stump being removed; Fig. 5, a section on the line $x x$ in Fig. 3; Fig. 6, a similar section, the stump being removed; and Fig. 7 is a side elevation of the finger-piece detached.

1 denotes the case, and 2 the face-plate, which is secured thereto in the ordinary manner. In practice the case is mortised into the sash, as is clearly shown in Fig. 2. The locking mechanism upon the casing consists of a keeper-plate 3, having a stump 4, which is engaged by the locking-catches, as will presently be explained. The stump is made spear-shaped—that is to say, the sides consist of inclines 5, which meet at the lower end. Above the inclines are shoulders 6, which are adapted to be engaged by the catches. The

back of the stump also consists of an incline 7, which terminates at the lower end, as is clearly shown in Fig. 5. The locking mechanism within the case consists of two bevel-nosed locking-catches 8, pivoted as at 9.

10 denotes springs which act to throw the locking-catches to their forward position, the limit of their forward movement being determined by stops 11. Near the upper ends of the locking-catches are inclined shoulders 12, which are engaged by lugs 13 on the finger-piece 14. This finger-piece consists of a metallic plate of suitable shape to be supported by the locking-catches themselves. A projection 15 extends through a slot 16 in the face-plate for convenience in operation. On the under side of the finger-piece is a bevel-nosed lug 17, which is adapted to engage a spring locking-plate 18, which lies between the locking-catches, and is held in operative position by a pin 19, which passes loosely through it and is secured in the opposite plates of the case, the lower end of said locking-plate preferably resting between pins 20, which serve as guides. The under sides of the lower or shank ends of the locking-catches are cut away, as at 21, (see Figs. 5 and 6,) and also indicated by dotted lines in Fig. 4. The ends of this locking-plate are normally curved upward, the central portion of the back thereof resting against the back plate of the case at all times. In the acts of locking and unlocking one end of said spring is lifted upward and the other moved downward, as shown in Figs. 5 and 6, and as will presently be fully explained.

22 denotes an opening in the top of a case for the upper sash, or the bottom of a case for the lower sash, through which stump 4 upon the keeper-plate passes in the act of locking.

The operation is as follows: To lock the upper sash, said sash has merely to be forced upward to its extreme position. Stump 4 upon the keeper-plate passes into the case through opening 22 and engages the beveled nose of the locking-catches, inclines 5 upon the sides of the stump acting to press said catches upward away from each other against the power of springs 10 until shoulders 6 upon the stump have passed below the catches, the springs then acting to throw the catches

inward to their locking position, as in Fig. 3, thus holding the window securely in place. As an additional safeguard to prevent tampering with the lock, I provide that the catches shall be held at their locked position by means of the spring-plate 18. As already stated, the under side of stump 4 is provided with an incline 7, and as the stump passes into the case this incline engages the upper end of the spring locking-plate and presses it down, as clearly shown in Fig. 5, which tilts the lower end thereof, raising it above the cut-away portions 21 in the lower ends of the locking-catches, so that said spring-plate lies between the straight inner sides of the lower ends of the locking-catches, thereby preventing said catches from being forced outward sufficiently to disengage the stump until the lower end of the spring locking-plate is pressed downward sufficiently to allow the cut-away portions 21 at the lower ends of the catches to pass over the spring locking-plate. This is accomplished by means of bevel-nosed lug 17 (see Figs. 5 and 6) upon the under side of the finger-piece. To unlock, the operator simply presses down upon projection 15. This moves the whole finger-piece down, causing lugs 13 to ride down the inclined shoulders 12, which of course acts to throw the upper ends of the locking-catches outward against the power of springs 10. At the same time, bevel-nosed lug 17 presses down the lower end of the spring locking-plate, so that the lower ends of the locking-catches will pass over it—that is to say, the edges of the spring locking-plate pass into cut-away portions 21. The pressure upon projection 15 being a direct downward pull, it follows that the sash will be drawn downward thereby as soon as the stump upon the keeper-plate is released by the locking-catches. The instant the hand of the operator is removed from projection 15 upon the finger-piece, springs 10 force the locking-catches inward again to their normal position, as in Figs. 3 and 4, at the same time raising the finger-piece to its normal position.

In Fig. 1 I have shown a chain and ring attached to projection 15 for convenience in

operation. When applied to the lower sash, the locking mechanism just described is simply inverted. Projection 15, when intended for the lower sash, is preferably made slightly longer and curved over, like an ordinary sash-lift, so that upward pressure thereon will first disengage the locking-catches from the stump and then raise the sash.

It will of course be understood that the details of construction which I have illustrated and described are subject to great variation without departing from the principle of my invention.

I claim—

1. In a sash-lock, the combination, with a bevel-nosed stump adapted for attachment to the casing, of pivoted locking-catches carried by the sash, springs acting to throw said catches to the locked position, and a sliding finger-piece having lugs engaging the locking-catches and acting when said finger-piece is moved to throw them outward to disengage the stump.

2. The combination, with stump 4, beveled upon the sides and back, of pivoted locking-catches upon the sash having inclined shoulders 12 and cut-away portions 21, springs 10, acting to hold said catches in the locked position, a loosely-suspended spring locking-plate having upwardly-curved ends, and a finger-piece having lugs 13, engaging shoulders 12, and a lug 17, engaging the lower end of the locking-plate, whereby, when the parts are moved to the locked position, the lower end of the locking-plate is lifted between the spring-catches, retaining them in the locked position, and when the finger-piece is operated the locking-catches are thrown to the unlocked position and the lower end of the locking-plate pressed downward so that the locking-catches swing over it.

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

FERDINAND F. SCHUMANN.

Witnesses:

A. M. WOOSTER,
ELLA F. PETTIT.