No. 875,338. PATENTED DEC. 31, 1907.

L. FOERY.

SASH LOCK.

APPLICATION FILED AUG. 21, 1907.

Fig. 1.

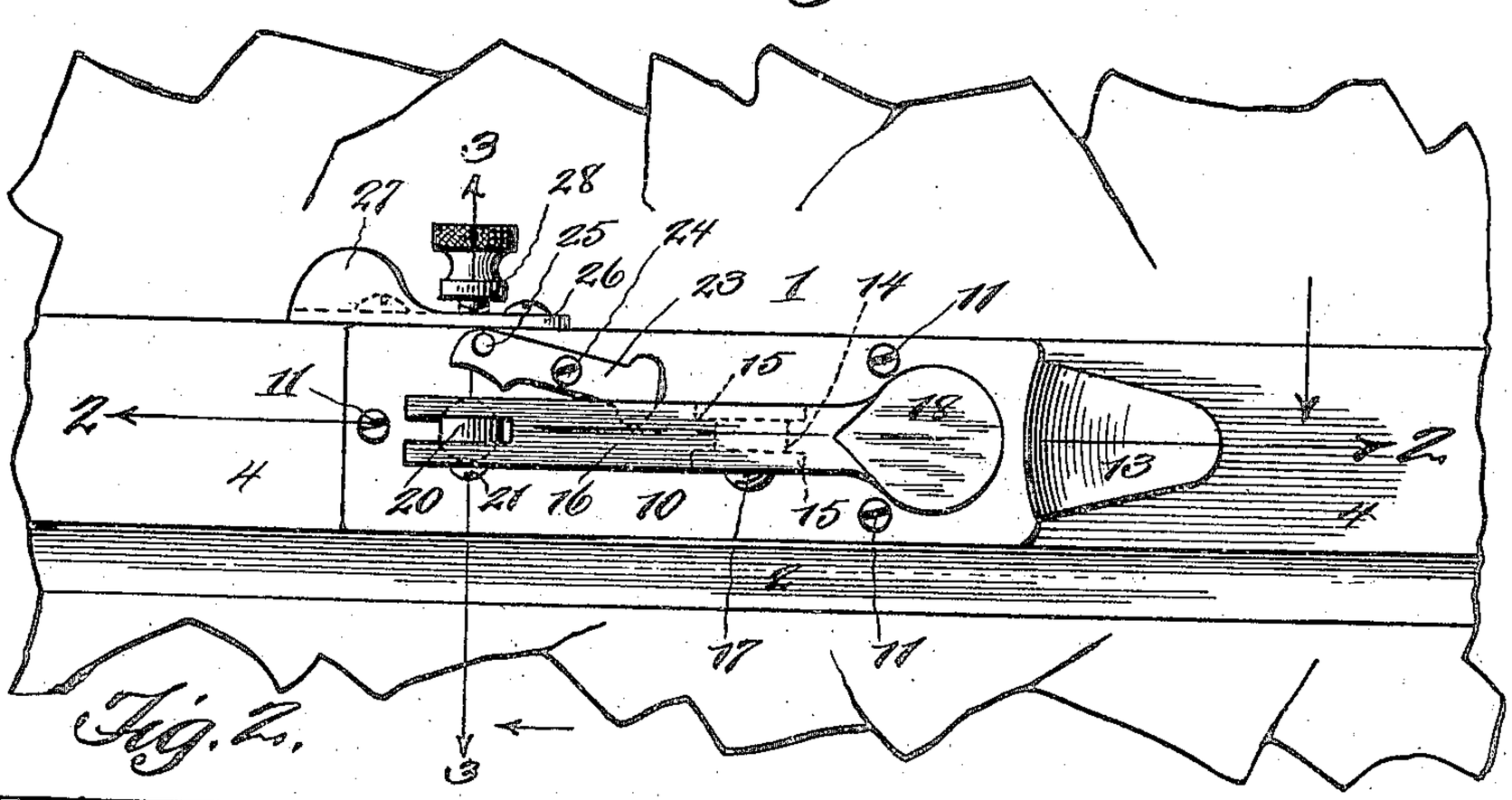

Fig. 2.

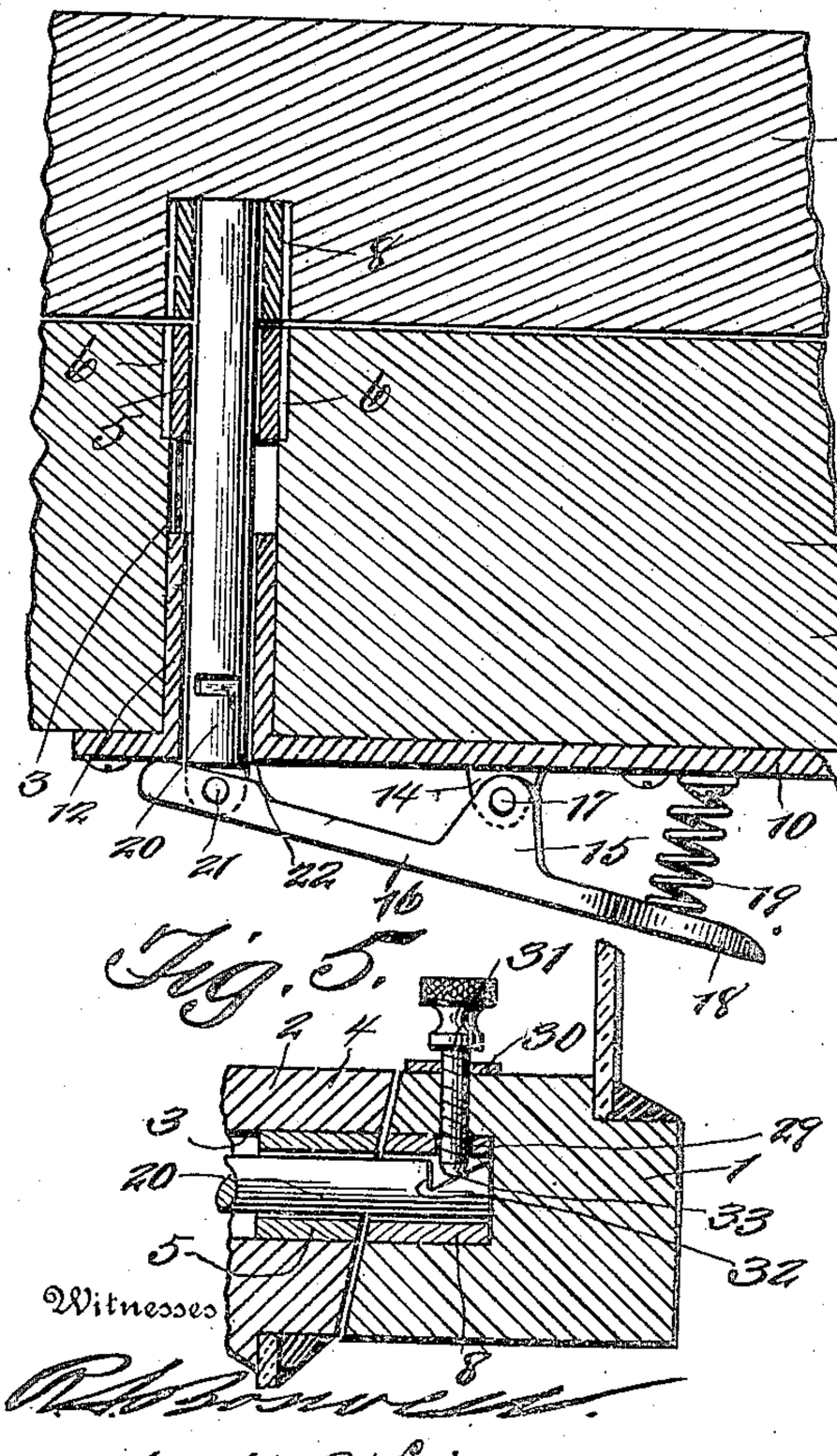

Fig. 3.

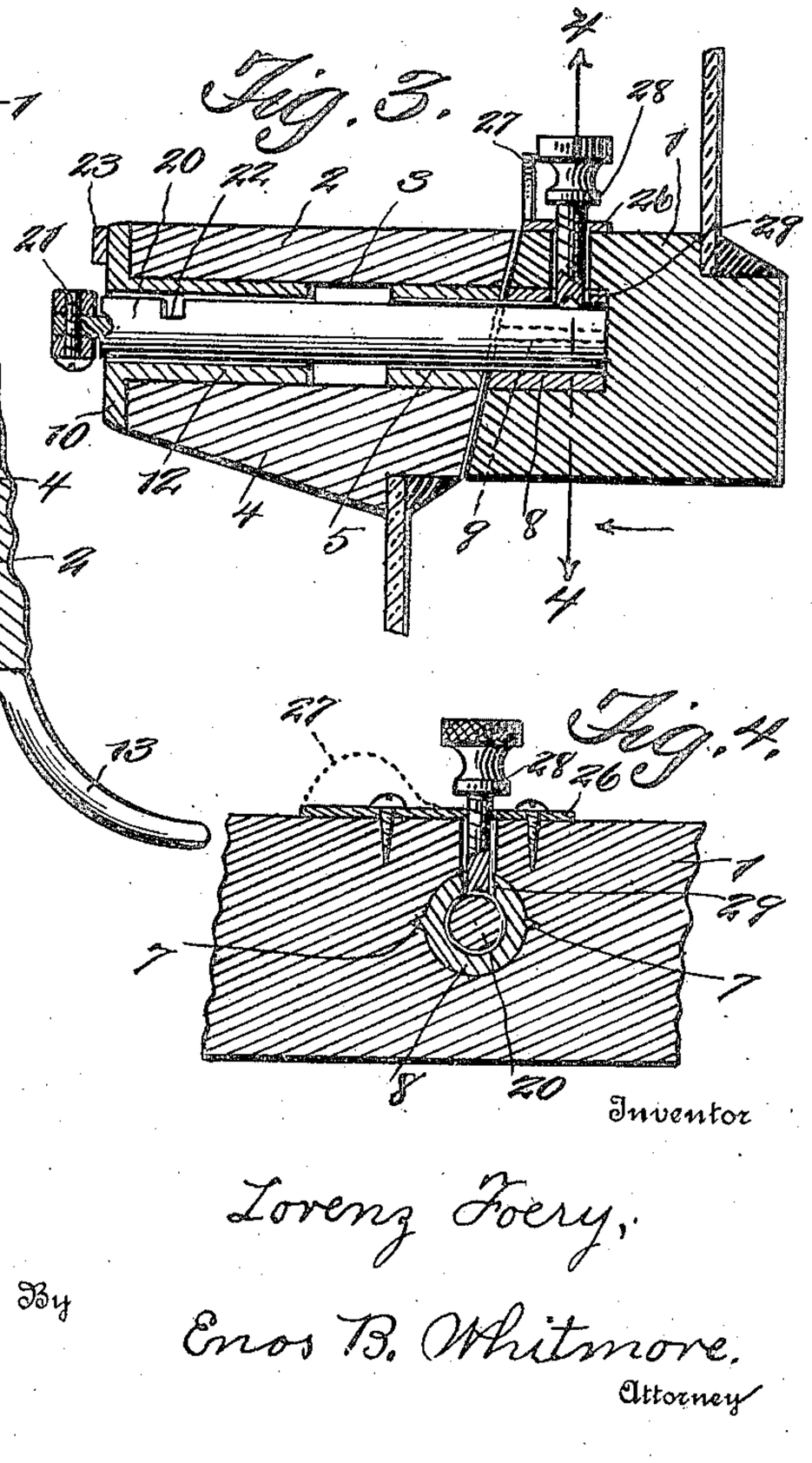

Fig. 4.

Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

LORENZ FOERY, OF ROCHESTER, NEW YORK.

SASH-LOCK.

No. 875,338. Specification of Letters Patent. Patented Dec. 31, 1907.

Application filed August 21, 1907. Serial No. 389,565.

To all whom it may concern:

Be it known that I, LORENZ FOERY, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Sash-Locks, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

This invention relates to certain new and useful improvements in sash locks of that class in which is employed a bolt, mounted in the top rail of the lower sash and engageable in the bottom rail of the top sash and provided with means for locking the sash in closed position.

The present invention has for its objects among others to provide an improved sash lock of this general character which can be readily applied to the sash, easily operated, simple in its nature, and in which the locking means for the bolt shall be capable of drawing the two sash together to form a close or tight joint and to prevent rattling of the sash by the wind.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which

Figure 1 is a front elevation of the adjoining portions of the upper and lower sash, with portions broken away. Fig. 2 is a longitudinal section, on the line 2—2 of Fig. 1. Fig. 3 is a vertical section, on the line 3—3 of Fig. 1. Fig. 4 is a vertical section, on the line 4—4 of Fig. 3. Fig. 5 is a view similar to Fig. 3, showing a modified form.

Like numerals of reference indicate like parts throughout the several views.

Referring to the drawings 1 designates the upper and 2 the lower sash. In the upper cross bar or rail of the lower sash I provide an opening 3 extending entirely through said cross bar 4, and in some instances I prefer to place in this opening a bushing 5, or socket, of metal driven or pressed into the opening, this socket being preferably provided with longitudinal ridges or barbs 6, as seen in Fig. 2, or spurs 7 as seen in Fig. 4, which embed themselves into the grain of the wood to hold the bushing or socket from turning, as will be evident. In the front face of the bottom cross bar or rail of the upper sash I place a similar socket or bushing 8, provided with ridges 9 for a similar purpose. This socket or bushing receives the end of the bolt when the latter is projected to pass through the upper rail of the lower sash, as is shown in Fig. 2.

10 is a metal plate secured to the front face of the upper rail of the lower sash, by screws or the like, 11, the plate being so disposed that the bolt pierces the meeting rails midway of their length instead of at one side as has been proposed.

12 is a rearwardly projecting sleeve, rigid with the plate 10 as shown best in Fig. 2, which serves to guide and control the bolt during its longitudinal movements, which latter are also aided by the bushing or socket 5, which latter aids also in directing or guiding the bolt into the socket or bushing 8 in the upper sash, as will be apparent from Fig. 2.

One end of the plate 10 has a finger piece 13, and between its ends with the laterally projecting ear 14 which receives the ears 15 on the lever 16 which last named ears embrace the ear 14, and a screw or other pivot 17 supported in said ears serves as the fulcrum for the lever. This lever is provided at one end with a thumb piece 18 as shown and between this and the plate 10 is disposed a spring 19 tending to normally keep the bolt innermost. The other end of this lever is bifurcated and in this bifurcation is pivotally held one end of the bolt 20, upon a suitable pivot 21. This bolt pierces the two rails of the sash as shown and works through the bushings and sleeve, as will be readily understood from Fig. 2.

In order to hold the bolt in its outermost position so that its end will be positively held out of engagement with the bottom rail of the upper sash, I provide the bolt near its inner end with a notch or recess 22 as seen in Figs. 2 and 3, and upon the plate 10 in proximity thereto I pivot a locking lever 23 upon a pivot 24, and provide it with a knob or the like 25 by which it may be moved. When the bolt is drawn out, this lever may be moved so that its end will engage in the notch of the bolt and hold it in its outermost position.

The mode of use will be apparent; when the windows are closed the bolt is projected by means of the spring into the socket of the upper sash as seen in Fig. 2. When it is desired to raise the lower sash or lower the upper sash, the thumb piece is pressed upon,

against the tension of the spring and the bolt is withdrawn from its socket in the upper sash and both sash are then free to be moved as may be desired. The bolt may be locked in this outward position or allowed to be held out by the pressure on the thumb piece. When the sash are closed the bolt will be forced by the spring into the socket of the lower rail of the upper sash and locked.

The meeting edges of the two rails are beveled in the usual manner as seen in Figs. 3 and 5 for the purpose of causing them to form a tight joint when the two sashes are closed. On the upper surface of the lower rail of the upper sash is fastened in any suitable manner, a plate 26 having a raised part 27 as seen in Figs. 1 and 3 for the purpose of gripping with the finger when the screw now to be described is turned down against the upper surface of the bolt. Before this screw is tightened the meeting rails of the two sashes are brought together with a pinch of the thumb and finger to make a tight joint and prevent the sashes from rattling when the wind blows. In doing this the fore finger of the left hand is pressed against the rear surface of the raised part 27 while the thumb is pressed against the inner end of the bolt where pivoted to the lever. This pinching of the parts together between the thumb and finger brings the two meeting rails snugly together before the thumb screw is tightened firmly down on the bolt. This screw 28 is threaded through the plate 26 and passes through the lower rail of the upper sash and through an opening 29 in the bushing or socket 8 and engages the bolt as seen in Fig. 3. The end of this screw is made concave or cupped so that the circular edge of the cup will cut into the bolt and give the screw a better hold on the bolt than if the end of the screw were straight or smooth.

In Fig. 5 is shown a modification, which dispenses with the raised part 27. In this instance a plate 30 is secured to the upper surface of the lower rail of the upper sash and through this plate is threaded the screw or thumb bolt 31 the lower end of which engages the bolt, and in this instance the bolt is provided with a transverse notch 32, having an inclined lower side 33 to receive the end of the bolt, or screw 31. In this case the end of the bolt is preferably rounded. The advantages of this construction will be readily appreciated. When the sashes are brought together with the meeting rails opposite, and the inner end of the thumb bolt is tightened down against the bolt the slant surface will automatically draw the meeting rails together, the bolt being pulled longitudinally in the direction of the lower rail of the upper or outer sash without any pinching by the thumb and finger.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What is claimed as new is;—

1. In a sash lock, a spring-actuated bolt movable through the top rail of the lower sash, a bushing forming a keeper for said bolt, a lever for controlling the movements of the bolt, the bolt having a notch, and a weighted pawl for engagement with said notch and means movable through said bushing and engaging the bolt.

2. In a sash lock, a spring-actuated bolt, movable through the top rail of the lower sash, means for holding the bolt in its retracted position, and means for engaging the bolt in its projected position said means being both at right angles to the bolt and at right angles to each other.

3. In a sash lock, a bolt, a spring actuated lever connected therewith, a weighted pawl for engaging the bolt to hold it in its retracted position, and means at right angles to the length of the bolt for drawing the sash together and holding the bolt in its projected position.

4. In a sash lock, a bolt, a lever connected therewith, a spring acting on the lever to normally keep the bolt projected, said bolt having an inclined portion, and means for engaging said inclined portion to draw the two sashes together.

5. In a sash lock, a bolt, a lever connected therewith, a spring acting on the lever, to keep the bolt projected, means for locking the bolt in its retracted position, said bolt having an inclined portion, and a thumb screw adapted to engage said inclined portion to draw the two sashes together.

In witness whereof, I have hereunto set my hand this 17th day of August, 1907, in the presence of two subscribing witnesses.

LORENZ FOERY.

Witnesses:
E. B. WHITMORE,
A. M. WHITMORE.