R. T. JORDAN.

SASH LOCK.

APPLICATION FILED MAY 4, 1908.

920,875.

Patented May 4, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

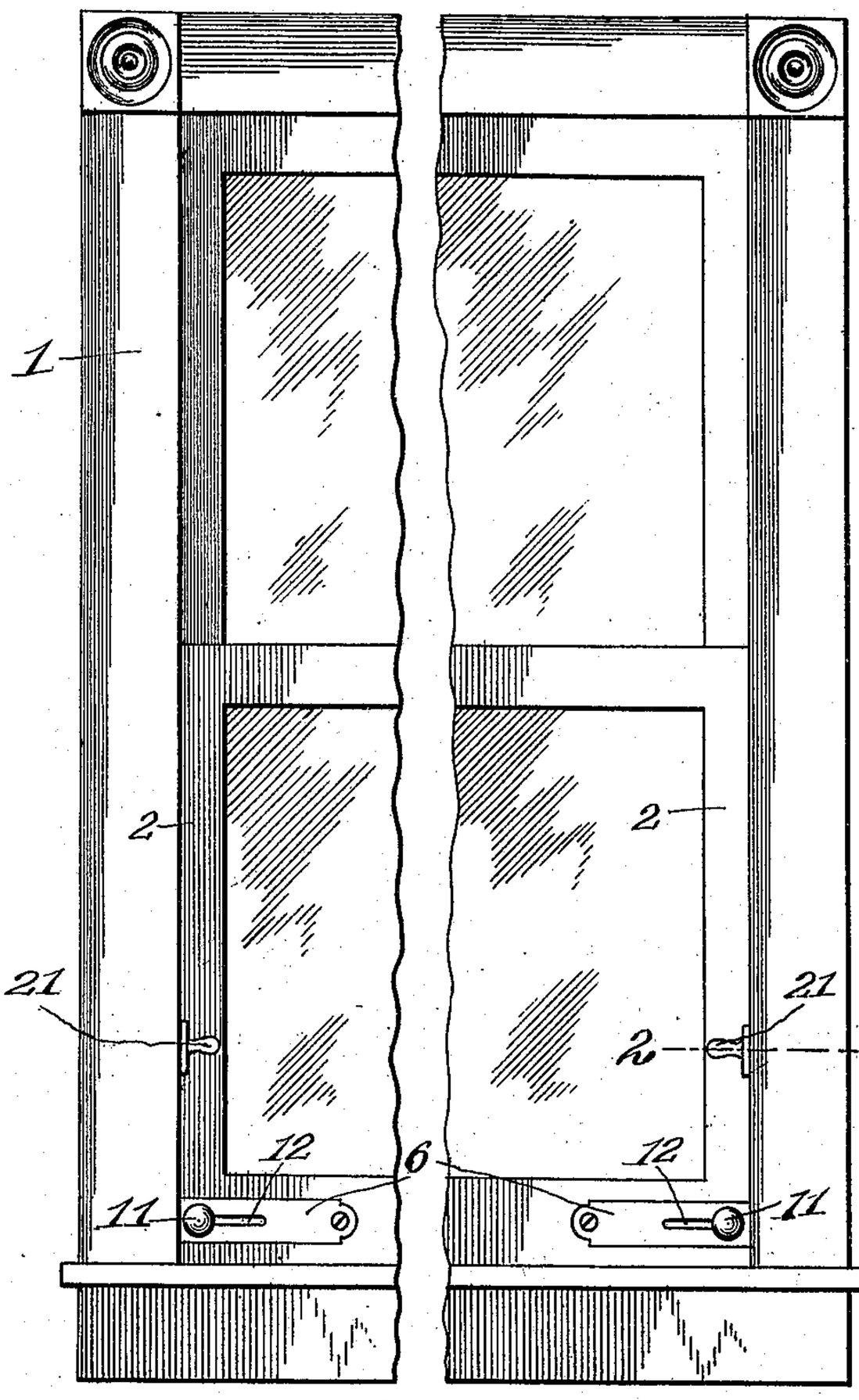


Fig. 3.

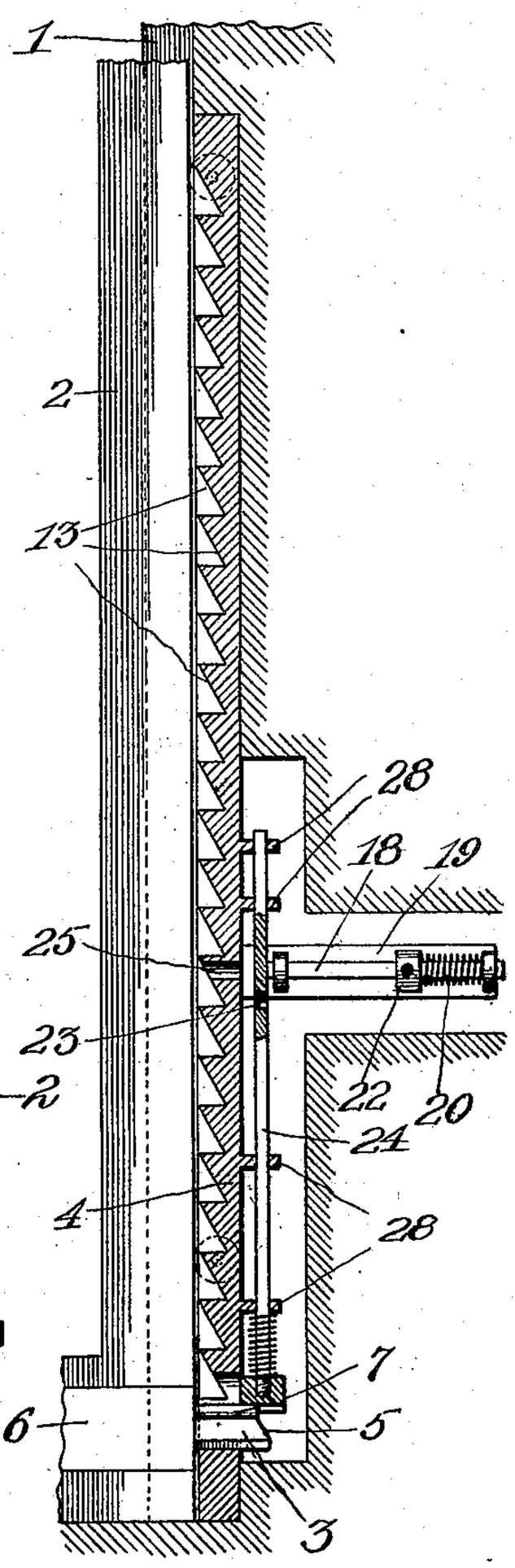
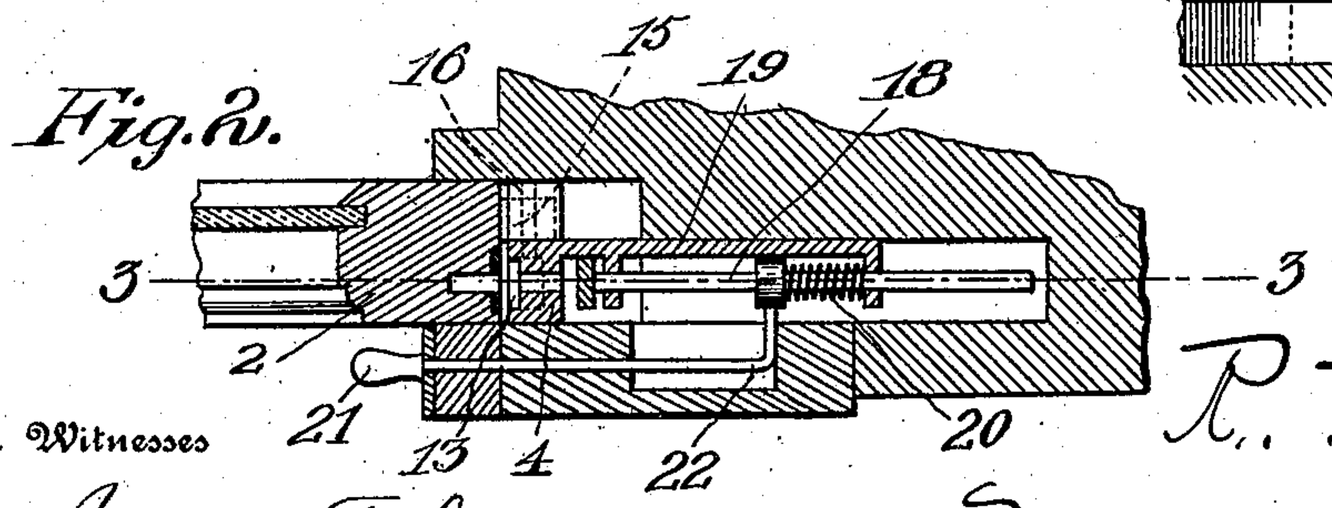


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

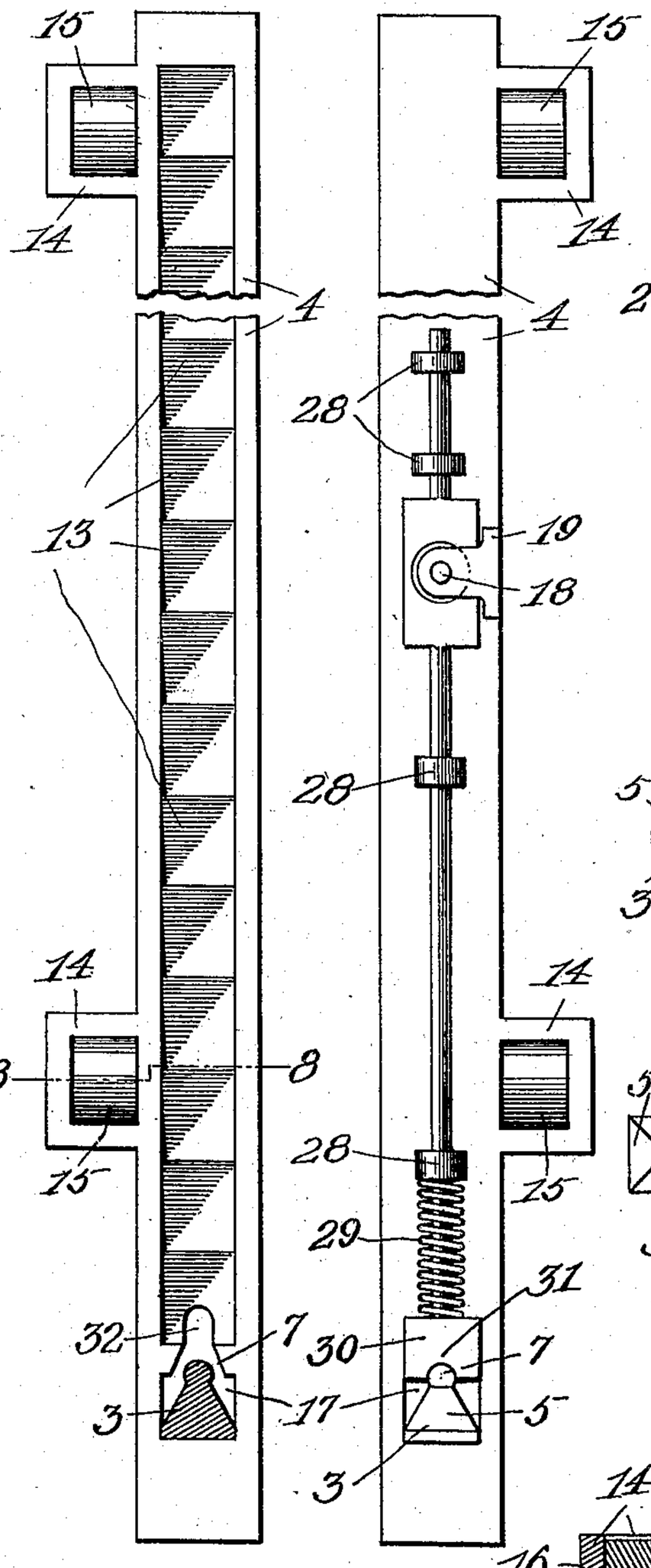


Fig. 5.

Fig. 6.

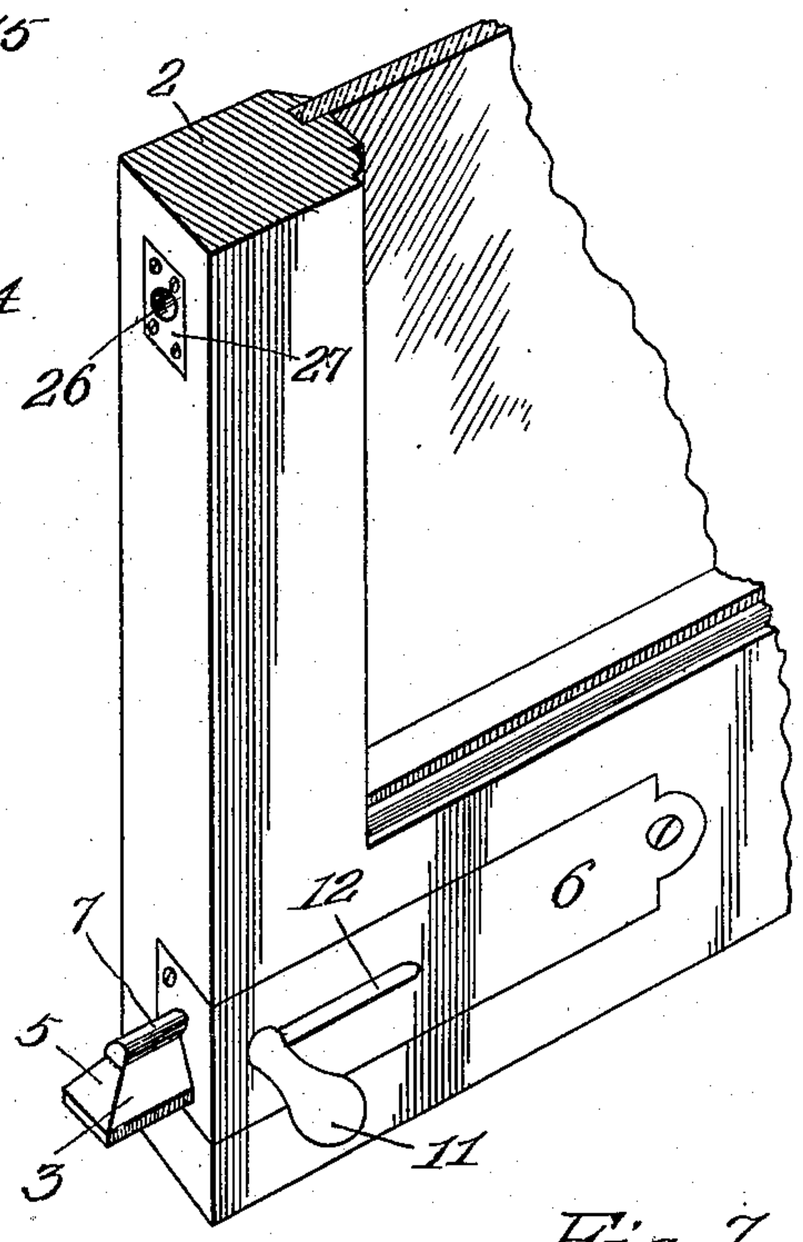


Fig. 7.

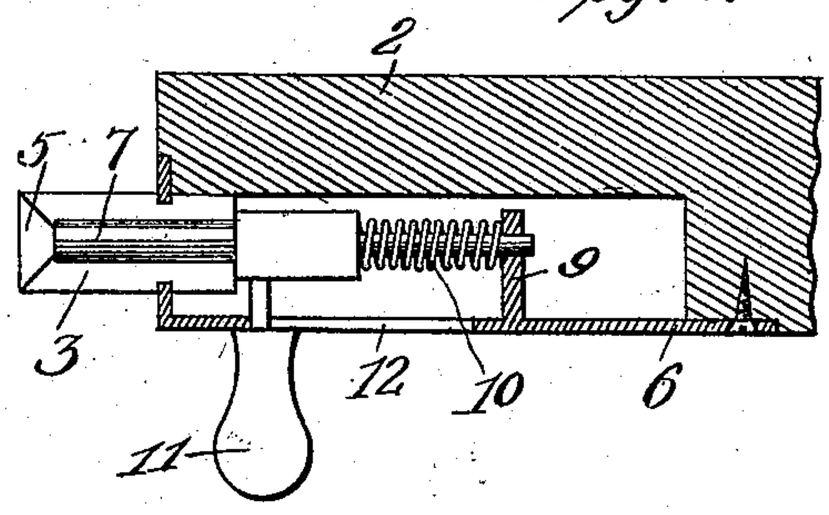
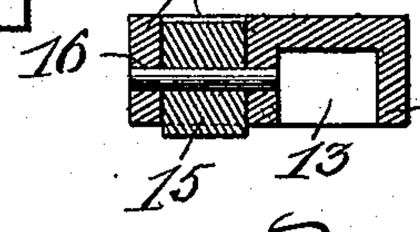


Fig 8



Witnesses

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UNITED STATES PATENT OFFICE.

ROSCOE T. JORDAN, OF HINSDALE, NEW HAMPSHIRE, ASSIGNOR OF ONE-HALF TO JOHN H. MAGEE, OF HINSDALE, NEW HAMPSHIRE.

SASH-LOCK.

No. 920,875. Specification of Letters Patent. Patented May 4, 1909.

Application filed May 4, 1908. Serial No. 430,748.

To all whom it may concern:

Be it known that I, ROSCOE T. JORDAN, a citizen of the United States, residing at Hinsdale, in the county of Cheshire and State of New Hampshire, have invented certain new and useful Improvements in Sash-Locks, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in devices for holding and locking window sashes and the like.

The object of the invention is to provide a simple, practical and effective device of this character by means of which a window sash may be secured at any desired point without the use of weights and cords and by means of which the sash will be automatically locked in its closed position.

Another object of the invention is to provide, in connection with a sash holding and locking device of this character, a supplemental or emergency locking device which will be controlled by the former and allowed to assume its operative position when the window sash is tampered with by burglars.

With the above and other objects in view, the invention consists of the novel features of construction and the combination and arrangement of devices hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a portion of a window frame showing my invention applied to the lower sash thereof; Fig. 2 is a horizontal section taken on the plane indicated by the line 2—2 in Fig. 1; Fig. 3 is a vertical section taken on the plane indicated by the line 3—3 in Fig. 2; Fig. 4 is a front elevation of one of the ratchet strips; Fig. 5 is a rear elevation of the same; Fig. 6 is a detail perspective view of one of the lower corners of the lower sash; Fig. 7 is a detail sectional view through the sash showing the construction of the locking bolt; and Fig. 8 is a detail section taken on the plane indicated by the line 8—8 in Fig. 4.

In the drawings 1 denotes a portion of a window frame and 2 the lower vertically slidable sash therein. In the practice of my invention I provide on each side of the sash 2, preferably adjacent to its bottom, a locking bolt 3 adapted to engage a ratchet strip 4 set in the side of the frame 1. Since the locking devices are the same on both sides of the sash I will describe but one of them. The bolt 3 has a beveled outer end 5 and is mounted for sliding movement in an opening in one end of a right angular attaching plate 6 set in the front side and adjacent edge of the sash. On the top of said bolt is a rib or bead 7 and its inner end is reduced and mounted for sliding movement in a bearing lug 9 on the plate 6. A coil spring 10 surrounds said reduced end and bears against said lug so that it tends to project the beveled end 5 of the bolt outwardly and into engagement with the ratchet strip 4. The bolt is retracted by pushing a finger piece or knob 11 having a stem connected to the bolt and working in a longitudinal slot 12 formed in the plate 6.

The ratchet strip 4 may be of any suitable form and construction and set in and secured to the frame 1 so that it will be opposite the edge of the sash 2 and in the path of the bolt 3. As illustrated, said ratchet strip or member is in the form of a plate formed with ratchet depressions or recesses 13 and at suitable points with enlargements 14 apertured to receive antifriction rollers 15 which are suitably journaled at 16 so that their peripheries project beyond the outer face of the plate or strip 4 and will engage the edge of the sash to allow it to slide freely without binding. The ratchet strip 4 preferably extends the full height of the sash so that the latter may be supported at any desired point. It will be seen that owing to the shape of the ratchet recesses and teeth in the plate 4 and to the shape of the beveled end 5 of the bolt, when the sash is pushed upwardly the bolt will slip over the ratchets to permit the sash to be easily raised; and that when the sash is released it will be retained in such elevated position by the bolts. To lower the sash it is necessary to retract the bolts by means of their finger pieces or knobs 11. When the sash is in its lowered or closed position it is locked in such position by the entrance of the bolt 3 in an opening 17 in the lower portion of the ratchet plate.

The bolt 3, above described, is adapted to control the operation of the supplemental emergency or safety locking device which I preferably provide and which is so constructed that the instant a burglar or other person attempts to pry the sash upwardly and force the lock 3 said safety lock will be released to assist the lock 3 in effectively fas-

tening the sash against movement. One of the said emergency or safety locking devices is mounted upon each side of the frame and each comprises a locking bolt 18 slidably mounted in bearings upon a plate 19 set in the frame 1 at any suitable point. Said bolt is projected by a coil spring 20 arranged upon it and confined between one of its bearings and a stop shoulder or collar, and said bolt is adapted to be retracted by a finger piece or knob 21 arranged upon the outer end of a stem or pin 22 which projects from the bolt 18 and it is adapted to slide in a slot in the frame 1. Said bolt 18 when projected is adapted to pass through an opening 23 formed in a controlling member 24, through an opening 25 formed in the ratchet strip 4, and into a keeper recess 26 formed in the edge of the sash 2 and protected, preferably, by a metal wear plate 27. The bolt 18 is adapted to be held normally in its retracted position by said controlling member 24 which is preferably in the form of a rod having a flat portion intermediate its ends in which the opening 23 is formed. The rod or member 24 is mounted for vertical sliding movement in bearing lugs 28 projecting from the rear face of the ratchet strip 4 and it is adapted to be actuated in one direction by a coil spring 29 and in the other direction by the bolt 3. The spring 29 surrounds a portion of the rod 24 and is confined between one of the bearings 28 for the latter and a head or enlargement 30 secured on the lower end of the rod 24 and provided in its bottom face with a groove or depression 31 to engage the bead or rib 7 on the bolt 3. In the upper wall of the opening 17 in the ratchet plate is a vertically extending recess or slot 32 to receive the bead or rib 7 on the bolt 3.

The operation of this emergency or safety locking device is as follows: When any one attempts to pry up the sash 2 the slight upward movement of the bead 7 on the bolt 3 in the slot 32 of the ratchet plate causes the controlling rod or member 24 to be raised so that the opening 23 in said member will aline with the bolt 18 so that the spring 20 of said bolt will project it through the ratchet plate 4 and into the keeper recess 26 in the sash to effectively lock the latter. Owing to the provision of two of the safety bolts 18 and two of the latch bolts 3 on each sash it will be seen that the latter will be securely fastened and cannot be opened without an almost total destruction of it. To reset the controlling rod 24 it is only necessary to actuate the finger piece or knob 21 to retract the bolt 18.

Having thus described my invention what I claim is:

1. The combination with a window frame and a sliding sash therein, of a normally retracted locking means adapted to engage the sash when released and means for releasing said locking means when the sash is forced upward.

2. The combination with a window frame and a sliding sash therein, of a normally operative locking means for the sash and a normally inoperative supplemental locking means for the sash and means operated by the first mentioned locking means for releasing said supplemental locking means.

3. The combination with a window frame and a sliding sash therein, of a sliding bolt carried by the sash, a normally retracted safety locking bolt, and means operated by the first mentioned bolt for releasing said safety bolt.

4. The combination with a window frame and a sliding sash therein, of a sliding bolt carried by the sash, a spring projected safety locking bolt upon the frame adapted to engage the sash, and a spring actuated controlling member adapted to hold said safety locking bolt retracted and to be actuated by said bolt upon the sash when the latter is forced.

5. The combination with a window frame and a sliding sash therein, of a sliding spring actuated bolt carried by the sash, a ratchet upon the frame adapted to be engaged by said bolt, a supplemental spring actuated bolt slidably mounted in the frame and adapted to engage the sash and a slidably mounted spring actuated controlling member adapted to hold the supplemental bolt in a normally inoperative position and to engage the first mentioned bolt whereby the supplemental bolt will be released when the sash is forced.

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

ROSCOE T. JORDAN.

Witnesses:

WILLIAM E. WATSON,

WILLIAM G. BOOTH.