No. 769,767. PATENTED SEPT. 13, 1904.

B. PHELPS.

WINDOW LOCK.

APPLICATION FILED NOV. 12, 1903.

NO MODEL.

Fig. 1.

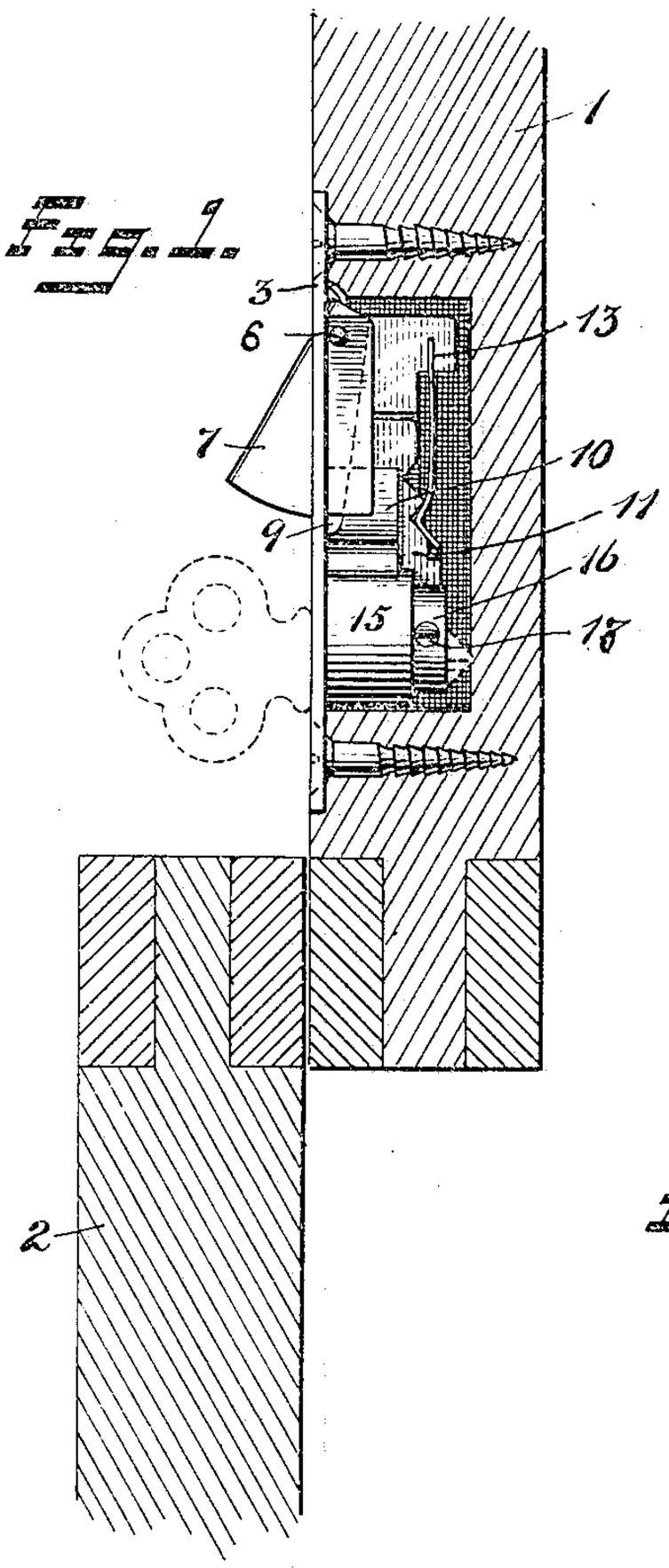

Fig. 2.

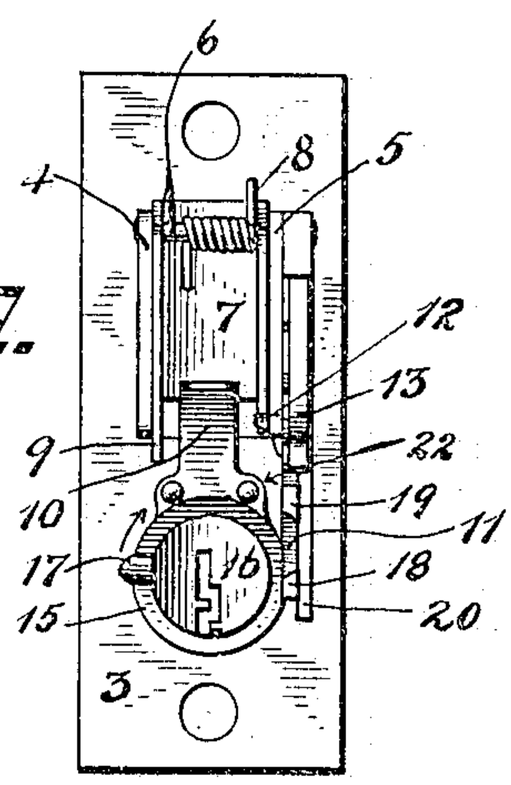

Fig. 3.

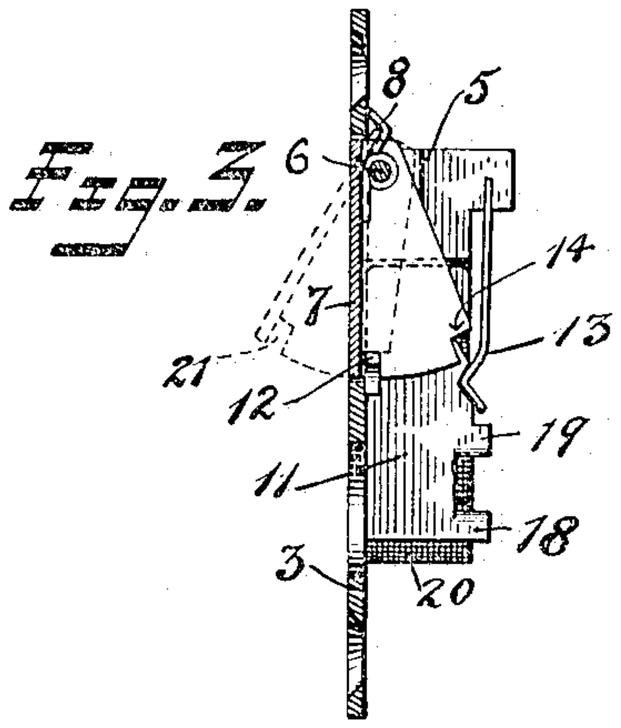

Fig. 4.

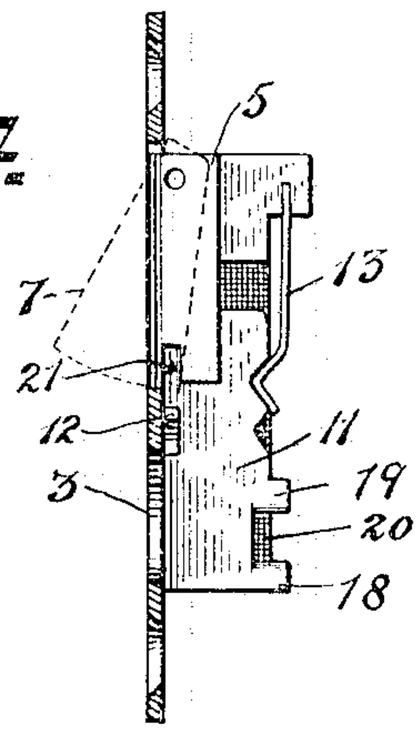

Fig. 5.

Fig. 6.

Witnesses
Geo. V. Ramyssen
R. E. Allen

Inventor
Byron Phelps
By his Attorney
Reuel Lee

No. 769,767. Patented September 13, 1904.

UNITED STATES PATENT OFFICE.

BYRON PHELPS, OF NEW BRITAIN, CONNECTICUT.

WINDOW-LOCK.

SPECIFICATION forming part of Letters Patent No. 769,767, dated September 13, 1904.

Application filed November 12, 1903. Serial No. 180,838. (No model.)

To all whom it may concern:

Be it known that I, BYRON PHELPS, a citizen of the United States, residing at New Britain, in the county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Window-Locks, of which the following is a full, clear, and exact description.

My invention relates to improvements in locks, and particularly to a lock for window-sash and the like.

The object of the invention is to construct a lock which may be employed on a window-sash to prevent the same from being opened. The construction will be also found to be such that when in use the window may be partially opened and yet may not be opened beyond a certain fixed position, as determined by the lock.

The ordinary sash-fastener may be employed in conjunction with my invention, but is in no way related or connected thereto.

The invention consists in the employment of a pivoted latch which does not prevent the closing of the sash, but which will prevent their opening beyond the position determined by the lock. The lock may be set, however, so as to permit the free opening or closing of the sash when desired. The lock may be released manually by a simple pressure when the lock is properly set, or it may be set so as to be opened only by the use of a proper key. The latch may be locked in either its open or closed position.

The details of construction will be more clearly seen on an inspection of the accompanying sheet of drawings, in which—

Figure 1 is a cross-section of fragments of a window-sash and showing my invention in side elevation with the latch projected into the locked position. Fig. 2 is a rear view of a lock embodying the improvements of this invention. Fig. 3 is a cross-sectional view showing the latch or bolt retracted and locked in its retracted position. Fig. 4 is a similar view, but with the bolt removed and showing the locking device retracted. Fig. 5 is a plan view of the latch-bolt prior to the time it is rolled up into its final form. Fig. 6 is a perspective view of the latch-bolt detached.

1 and 2 indicate the upper and lower sash, respectively.

3 is a face-plate of the lock, which is adapted to be secured to the upper sash in a suitable manner—as, for instance, by screws. The face-plate has an opening therein formed, preferably, by cutting out and bending back the ears 4 and 5. These ears reinforce the face-plate and form bearings for the pivot 6 of the latch-bolt 7.

8 is a spring which normally throws the bolt into the position shown in Fig. 1, where it stands outside of the face-plate and in a position to prevent the sash being separated more than the distance from the top of the lower sash to the bottom of the latch. When in this position, the lug 9, carried by one side of the latch 7, rests against the back of the face-plate and determines the amount of protrusion of the latch beyond the face-plate. Unless the latch is locked in the position shown it may be retracted by manual pressure, so that the sash may be opened. The shoulder 10 provides a stop to limit the inward retraction of the latch. The latch may, however, be locked in either the retracted or projected position by means of the slide 11. This slide has a lug 12, which is adapted to coöperate with the latch for locking it. The construction of the latch for this purpose will be seen particularly on an inspection of Fig. 3. In this figure it will be seen that the right-hand side of the latch 7 has a recess to permit the lug 12 to be interposed back of the face-plate, so as to prevent the latch from protruding when the slide is in the position shown. The slide is held in this position not only by the frictional engagement of the latch against the lug 12, but also by the spring 13, which rests in a notch in the top of the slide. If the slide is retracted, the latch may project through the opening in the face-plate until the lug 9 strikes against the back of the face-plate. In this position, as shown dotted in Fig. 3, the slide may be engaged again with the latch with the lug 12 back of the recess 14 in the latch, thus locking the latch in its extended position, as shown in Fig. 1. The slide will be held in the unlocked position, as shown in Fig. 4, by means

of the spring 13, resting in the upper notch in the slide. The operation of the slide is controlled by a pin-tumbler lock of a suitable construction. This consists of the cylinder 15, which is secured back of the face-plate, and a plug 16, which rotates in the cylinder. These parts are provided, as is usual in pin-tumbler locks, with suitable mechanism for preventing the rotation of the plug except upon the insertion of the proper key.

17 is a pin carried by the plug 16, which is adapted to operate the slide by direct contact. When the plug is rotated in a right-hand direction, the beveled end of the pin will strike against the ear 18 of the slide and retract it, so as to free the latch. When the plug is rotated in the opposite direction, the pin 17 will strike against the ear 19 of the slide and cause the slide to be thrown up into the locked position. The slide is guided between the frame 20 on one side and on the other side by the ear 5 and one side of the cylinder 15.

In Fig. 4 it will be seen that the right-hand ear 5 of the face-plate is slotted at 21 and that the lug 12 when in its locked position will extend through this passage 21 and into engagement with the latch. This holds the slide in position against pressure which might be applied through the medium of the latch-bolt. When the slide is in its unlocked position, the shoulder 22 acts as a stop to limit the movement of the slide. When in the locked position, the slide engages with the latch.

To open the sash, the latch-bolt is pushed back flush with the sash. It may then be locked in this position or left free to project under the action of the spring 8 when the sash are closed again. This latter provides an automatic lock to prevent the sash being separated from outside.

The construction will be seen to be simple and thus not likely to be easily gotten out of order and yet effective in its operation.

The latch-bolt 7 is constructed simply and economically. It requires merely a blank of sheet metal of substantially the outline shown in Fig. 5, in which the notches 21 14 may be stamped out preparatory to bending it up into the final form. (Shown in Fig 6.) In Fig. 5 the dotted lines indicate the lines on which the blank is bent to turn up the sides of said plate.

What I claim is—

1. A window-lock comprising, a pivoted latch member, a slide for engaging said latch to hold it in an extended or retracted position, and a pin-tumbler lock for operating said slide.

2. A window-lock comprising, a face-plate, a latch, pivoted to the rear thereof, a slide mounted to the rear of said plate and having a lug adapted to engage with recesses in said latch to hold said latch in its retracted or extended position, means for holding the slide in contact with said plate, means for supplementing said holding means when the latch is in the locked position, a rotatable plug, and a pin carried thereby for engagement with said slide, said plug being operable from the front of said plate.

3. A window-lock comprising a face-plate having an opening therein and secured to the upper sash, ears on either side of said opening, a latch pivotally supported by said ears adapted to be retracted by the closing of the sash, a spring engaging said latch, a stop to limit the outward projection of said latch, and a stop to limit the inward retraction.

4. A window-lock comprising a face-plate having an opening therein, ears on either side of said opening, a latch pivotally supported by said ears, a spring engaging said latch, a stop to limit the outward projection of said latch, a stop to limit the inward retraction, a slide for locking said latch in either its projected or retracted position, and means accessible from the front of said plate for operating said slide.

5. A window-lock comprising a face-plate, a latch, a slide mounted to the rear of said plate and having a lug adapted to engage with a recess in said latch to hold said latch in its retracted position, means for holding the slide in contact with said plate, means for supplementing said holding means when the latch is in the locked position, a rotatable plug, and a pin carried thereby for engagement with said slide.

BYRON PHELPS.

Witnesses:
L. VREELAND,
ROBT. S. ALLYN.