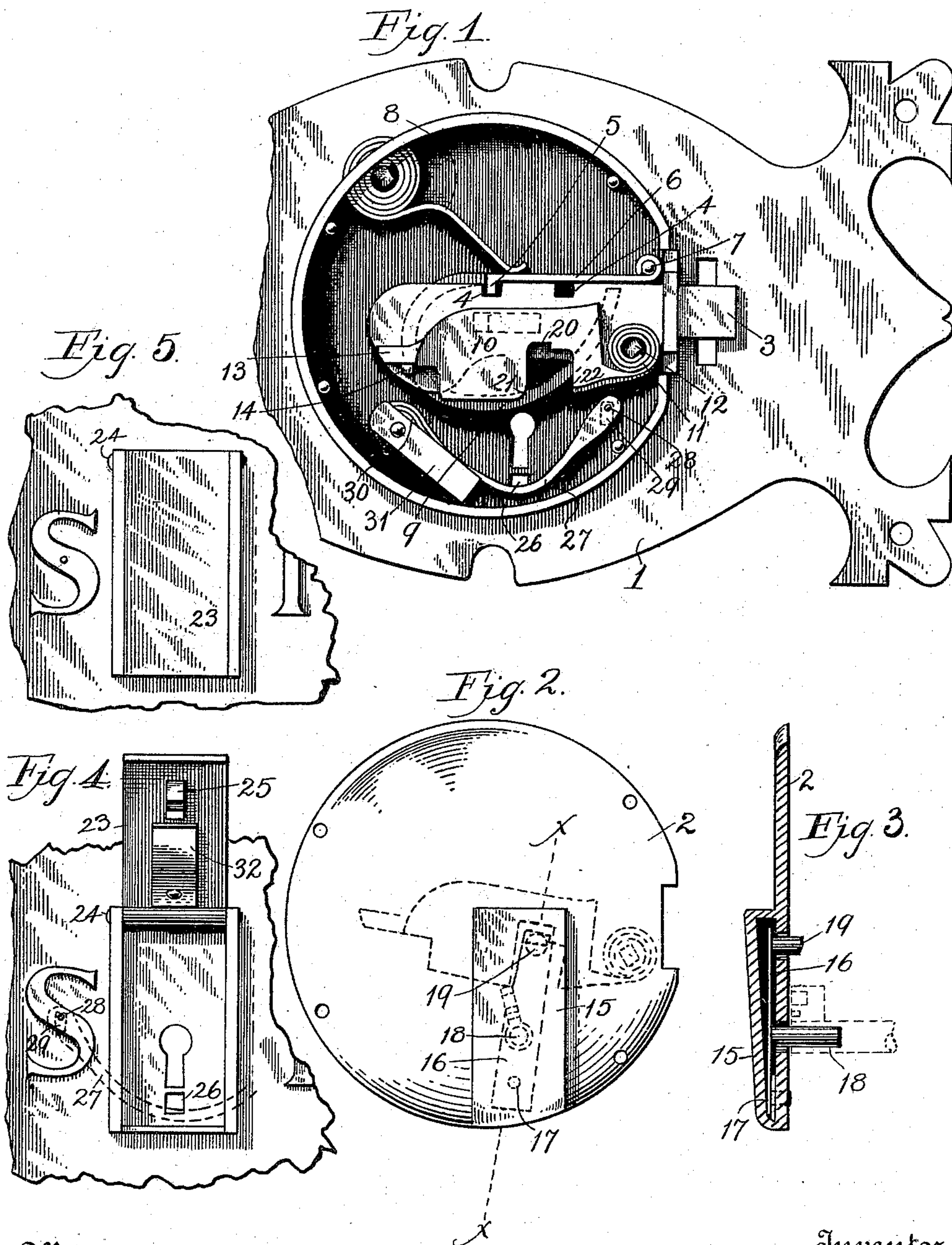


(No Model.)

S. PIOTROUSKI.  
LOCK.

No. 567,687.

Patented Sept. 15, 1896.



Witnesses  
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# UNITED STATES PATENT OFFICE.

STONNY PIOTROUSKI, OF HOLYOKE, MASSACHUSETTS.

## LOCK.

SPECIFICATION forming part of Letters Patent No. 567,687, dated September 15, 1896.

Application filed October 21, 1895. Serial No. 566,376. (No model.)

*To all whom it may concern:*

Be it known that I, STONNY PIOTROUSKI, a citizen of Russian Poland, and a resident of Holyoke, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Locks, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in locks, being especially applicable to trunk-locks, and the object of my invention is to provide a lock having secret devices which will frustrate the attempt to open the lock by a person who shall be in possession of the key but ignorant of the secrets connected with the proper use thereof.

My invention therefore consists in the construction, combination, and arrangement of parts devised for the above ends, herein-after fully specified, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a rear view of the lock, the rear plate being removed to disclose the operative parts. Fig. 2 is a rear view of said plate, the safety-latch being shown in dotted lines. Fig. 3 is a sectional view of said plate, taken on the line *xx* of Fig. 2. Fig. 4 is an enlarged detail view of the safety-guard open, and Fig. 5 is a similar view of the same closed.

1 represents the front plate, and 2 the rear plate of the lock.

3 is the bolt, provided with the notches 4, into one or the other of which falls the stud 5 of the tumbler 6, pivoted at 7, the upper side of which receives the pressure of the spring 8, and the lower side 9 is raised by the bit of the key when the bolt is actuated thereby.

10 is the safety-latch, having at its forward end a coiled spring 11, the end of which is secured at 12 to the bolt. The rear end of the latch has a tail 13, which is normally pressed down by the force of the spring 11 upon a stop 14 on the bolt, said stop limiting the downward movement of the latch.

Upon the back of the rear plate 2 is formed a chamber 15, in which is secured a spring-arm 16, working from the end 17, where it is secured upon the plate 2. Said spring-arm carries the key-post 18, projecting through the keyhole, and it also carries at its free end

the pin 19, which forms a stop for said latch. Said pin 19 bears upon the rear face of said latch when the latter is in its lower position, as shown in Fig. 1, but when the latch is in its raised position, as shown in dotted lines in Fig. 2, said stop enters a recess 20 in said latch and prevents rearward movement thereof.

The operation of this portion of the invention is as follows: When the trunk is unlocked, the bolt is withdrawn and the stud 5 enters the more forward of the recesses 4. The other parts of the device are in the position shown in Fig. 1, and the pin 19 presses upon the rear face of the latch 10. In locking the trunk the bit of the key as it is turned passes by the shoulder 21 of the latch 10, and finally impinges upon the registering shoulders 22 of the latch and bolt and shoots the bolt forward. During the whole of the operation so far the latch is not raised or pressed back against its spring, and the pin 19 slides upon the rear face of the latch.

To bring into play the safety device, the operator continues to turn the key. On its second revolution the bit of the key will impinge upon the shoulder 21, which will have been brought into the path of the key when the bolt, carrying with it the latch, was shot forward. The key-bit will thus press upward the latch, so that the recess 20 will be brought to the level of the pin 19, which will be forced into said recess by the spring 16. The operator then completes the turning of the key and withdraws it from the keyhole. When, now, any person not in possession of the secret attempts to unlock the trunk, he will be unable to do so, even though he shall have a proper key, for the pin 19 in the recess 20 will prevent any rearward movement of the latch, and therefore also of the bolt with which it moves. In order to unlock the trunk, it is first necessary to push the pin 19 out of the recess 20, which can only be done by pressing backward the key-post 18. The tip of the key-bit forms a convenient implement for this purpose. Pressure backward upon the key-post will force the pin 19 out of the recess 20, whereupon the latch, under the influence of the spring 11, will instantly move from the position shown in dotted lines in Fig. 2 to that shown in Fig. 1, in which position the pin 19



rests against the back of the latch, and the bolt can then be shot backward by the key in the usual manner.

In order to still further frustrate unauthorized attempts upon the lock, I provide a secret guard for the keyhole. This comprises a door or cover 23, pivoted at 24 to swing vertically upward, having a hook 25 which, when the cover is closed, enters a recess 26 in the front plate below the keyhole, and is there engaged and held by a spring-arm 27. In order to effectually conceal the means for opening the door or cover of the keyhole-guard, I provide any desired letters, one on each side of the keyhole, as, for instance, the initials of the owner, and one of said letters, as S, Figs. 5 and 6, is secured upon a pin 28, passing through a slot 29 in the lock-plate and secured on the other side of said plate to the end of the spring-arm 27. The other end of said arm is formed into a coiled spring 30 behind the letter on the opposite side of the keyhole, and said spring and arm are kept snug against the front plate, so as to always engage the hook 25 when it enters the recess 26 by means of the block 31. A spring 32 throws the cover or guard open as soon as the hook is released.

Having thus fully described my invention, what I claim is—

1. In a lock, the combination of a bolt, a latch longitudinally movable with said bolt, and transversely movable relatively thereto, said latch having a portion adapted to be interposed in the path of the key-bit whereby said transverse movement is effected by the turning of the key, and a catch normally abutting against the side of said latch opposite to and away from said bolt, and adapted, when said latch has been moved transversely, to be moved in a direction at right angles to the plane of motion of said latch to enter a recess therein, and prevent longitudinal movement thereof, substantially as described.

2. In a lock, the combination of a bolt provided with a shoulder adapted to be impinged upon by the key-bit in its forward movement to project the bolt, a movable shoulder adapted to be impinged upon by the key-bit in its rearward movement to retract the bolt said shoulder being moved out of its operative position by the forward turning of the key, and a spring-catch normally abutting against the face of said movable shoulder away from said bolt, and adapted, when said shoulder has been moved out of its operative position

to move in a direction at right angles to the plane of motion of said shoulder, and enter a recess therein, and lock the shoulder, substantially as described.

3. In a lock, the combination of a bolt, a latch secured at one end on said bolt having a spring throwing it downward or toward the keyhole, a stop limiting the downward movement of said latch, said latch being provided with a downwardly-opening recess, and having a shoulder located in the path of the key-bit when the bolt is in its forward position, whereby said latch is raised by said key, and a spring-actuated pin normally abutting against the face of said latch away from said bolt, and adapted, when said latch has been moved out of its operative position, to move in a direction at right angles to the plane of motion of said latch, and enter said recess when said latch is so raised and prevent longitudinal movement thereof, substantially as described.

4. In a lock, the combination, with the bolt, and the key-post for said bolt of a spring-actuated stop for said bolt and an operative connection between said stop and the key-post, whereby pressure upon said key-post against said spring moves said stop out of the plane of motion of said bolt and withdraws said stop from its locking position, substantially as described.

5. In a lock, the combination with the lock-plate, having a keyhole, of a cover pivoted to swing to and from the lock-plate and provided with a hook or catch, said lock-plate having an aperture through which said catch enters when swung into contact with said plate, a spring-latch secured upon said plate behind said aperture to engage said catch vibrating parallel to said plate, said latch having a stud extending through a slot in said plate, said stud limiting the vibration of said latch, and a letter or character secured upon the end of said stud and concealing said slot, substantially as described.

6. In a lock, a limiting-stop for a movable part of the lock, a key-post movable in the direction of its length, and an operative connection between said post and stop whereby pressure upon said post moves said stop, substantially as described.

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