F. SOLYWODA.

DOOR LOCK.

APPLICATION FILED AUG. 9, 1909.

953,928.

Patented Apr. 5, 1910.

2 SHEETS—SHEET 1.

FIG. 1

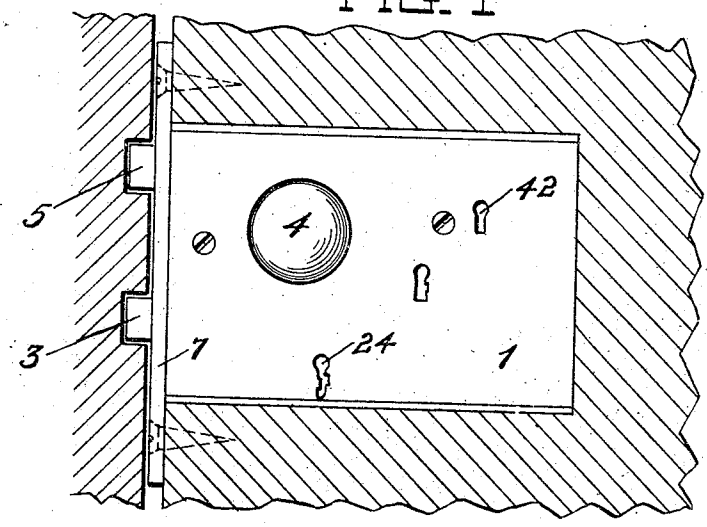


FIG. 2

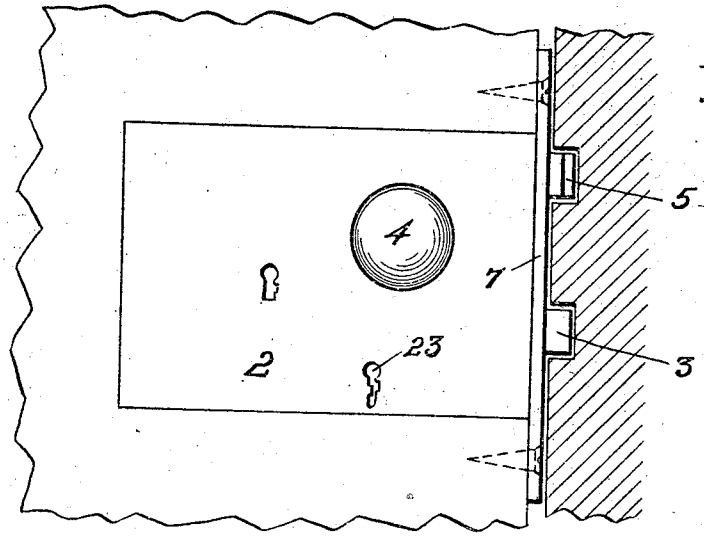
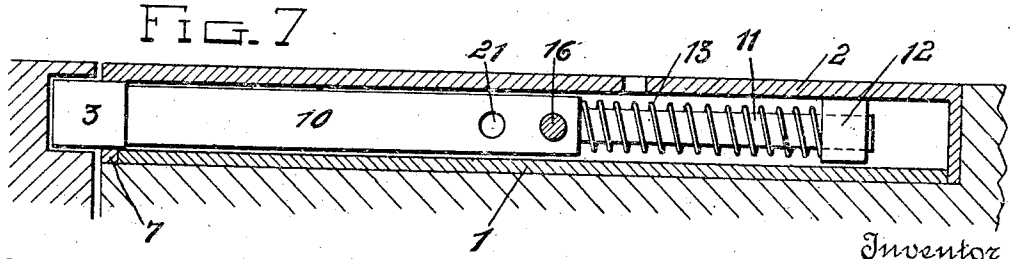


FIG. 7



Witnesses

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2 SHEETS—SHEET 2.

FIG. 3

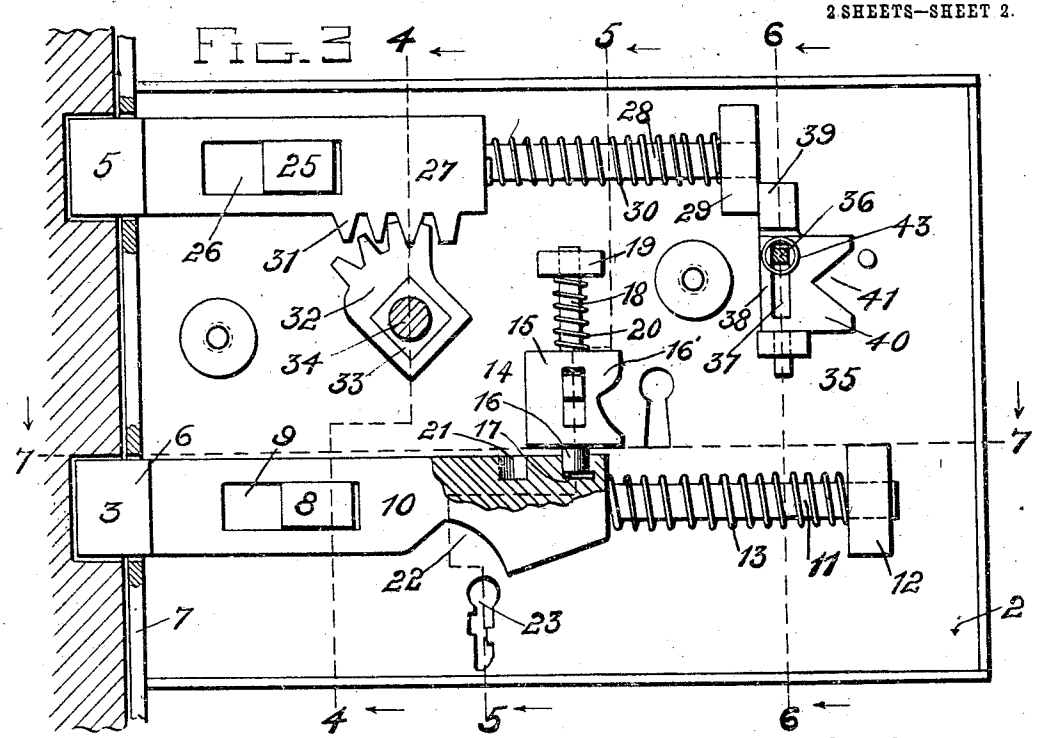


FIG. 4

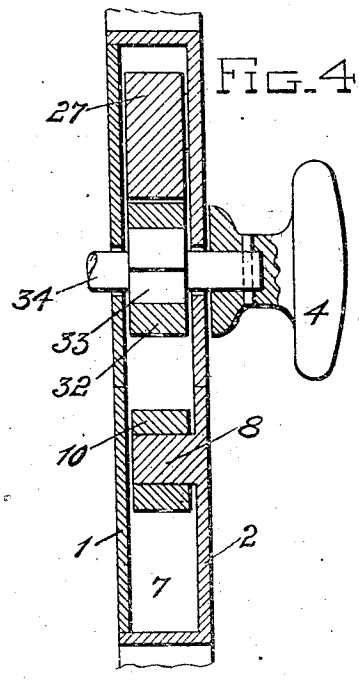


FIG. 5

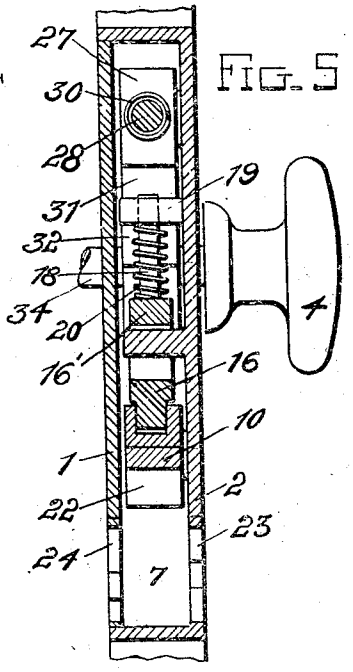
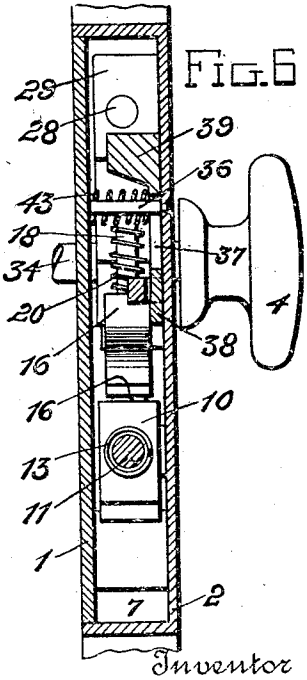


FIG. 6



Witnesses

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UNITED STATES PATENT OFFICE.

FRANK SOLYWODA, OF TORRINGTON, CONNECTICUT.

DOOR-LOCK.

953,928. Specification of Letters Patent. Patented Apr. 5, 1910.

Application filed August 9, 1909. Serial No. 512,042.

To all whom it may concern:

Be it known that I, FRANK SOLYWODA, a citizen of the United States, residing at Torrington, in the county of Litchfield and State of Connecticut, have invented certain new and useful Improvements in Door-Locks; and I do 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.

This invention relates to new and useful improvements in door locks and has for its object to provide a lock of this kind which can only be opened by the use of two keys and which will be proof against burglars.

The further object of the invention is to provide means for locking the knob latch as well as the locking bolt so that even were the person, surreptitiously attempting to enter the house, successful in unlocking the locking bolt, the door could not be opened because of the knob latch.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is an inside elevation of a lock embodying my improvements; Fig. 2 is an outside elevation thereof; Fig. 3 is a similar view with the inside cover plate removed to disclose the locking mechanism; Fig. 4 is an outer end view; Figs. 5 and 6 are transverse sectional views taken on line 5—5 and 6—6, respectively, of Fig. 3; Fig. 7 is a horizontal sectional view taken on line 7—7 of Fig. 3.

Referring to the drawings for a more particular description of the invention, 1 and 2 indicate the inside and outside cover plates, 3 the locking bolt, 4 the knob and 5 the knob latch. The locking bolt is adapted for longitudinal movement through a corresponding guide aperture 6 in the end wall 7 of the casing and is further guided in its movement by means of a stud 8 passing through a longitudinal slot 9 in the latch body 10. The inner end of the latch body is provided with a cylindrical stem 11 which works through a guide lug 12 formed on the outer cover plate 2 of the casing, a coiled spring 13 being disposed around the stem of the locking bolt between the inner end of its body 10 and the bearing lug 12 to normally hold the locking bolt in extended or locking position. The locking bolt is further held in locking position by means of a locking device 14 comprising an approximately square body 15, having a depending pin or portion 16 which is adapted to enter or seat in a corresponding socket 17 formed in the upper edge and outer end of the locking bolt body. The upper edge of said locking device is provided with a vertical guide pin 18 which works through the bearing lug 19 projecting laterally from the outer cover plate of the casing, a coiled spring 20 being disposed around the guide pin to normally hold the locking device in projected position. The body of the locking bolt is also provided with a second socket 21 which is spaced outwardly a short distance from the socket 17 and which is adapted to receive the pin or portion 16 of the locking device, when the locking bolt is retracted. The lower edge of the locking bolt body is recessed as at 22 to receive the bit of a key, while the outside and the inside cover plates are provided with suitable key holes 23 and 24, respectively. The knob latch is arranged to slide longitudinally through the end wall 7 of the casing and is guided in its movement by the stud 25 passing through a longitudinal slot 26 in the body 27 thereof. The body of the latch is also provided at its inner end with a cylindrical stem 28 which works through the bearing lug 29. A coiled spring 30 is disposed around the stem to normally hold the knob latch in projected position. The lower edge of the latch body is provided with a rack 31, the teeth of which are adapted to intermesh with those of the mutilated pinion 32 which is arranged upon the squared portion 33 of the knob shank 34. The knob latch may be held in projected or locking position by a locking device 35 which is mounted to slide vertically against the outer face of the bearing lug 29 upon a guide pin 36 which passes through a slot 37 formed in the body 38 thereof. The locking device also comprises the stem engaging portion 39 and the lateral projection 40 which is recessed in its outer edge as at 41 to receive the bit of a key, while the inside cover plate 1 is provided with a suitable key hole 42 to receive the key. A coiled spring 43 is disposed around the guide pin 36 and is arranged to bear on the slotted body of the locking device and holds the latter in either of its two positions.

To lock the door, a key is inserted through a suitable key hole in either the inside or outside cover plate and is turned to cause the bit thereof to engage the portion 16′ of the locking device 14 which raises the pin or portion 16 thereof out of the socket 21 when the locking bolt is moved into locking position by the spring 13. When said bolt is in this position, the pin 16, of the locking device 14 drops in the outer socket 17 and holds said bolt in position. To unlock the bolt, it is necessary that two keys be used, one to disengage the pin or portion 16 of the locking device 14 with the socket 17 of the lock body and the other to engage the recessed portion 22 of said body and to move the same into retracted position when the locking device engages the socket 21 and holds the locking bolt retracted. The knob latch may be locked by moving the locking device 35 by means of the key into position for the stem engaging portion thereof to engage the stem of said latch.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention, as defined in the appended claims.

Having thus described my invention, what I claim is:

In a door lock of the class described, a casing, a locking bolt slidably mounted therein and comprising a body provided in one edge with a pair of longitudinally spaced sockets and in its other edge with a recess adapted to receive the bit of a key, a spring to normally hold the locking bolt in projected position, and a spring pressed locking device mounted for vertical adjustment above the body of the locking bolt and having a depending portion adapted to engage either of the sockets in the upper edge thereof to lock the bolt in either projected or retracted position, and a portion adapted to be engaged by the bit of a key whereby the locking device may be disengaged with either of said sockets by means of a key.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK SOLYWODA.

Witnesses:

IGNACZY DREZEK,

WILLIAM A. GLEESON.