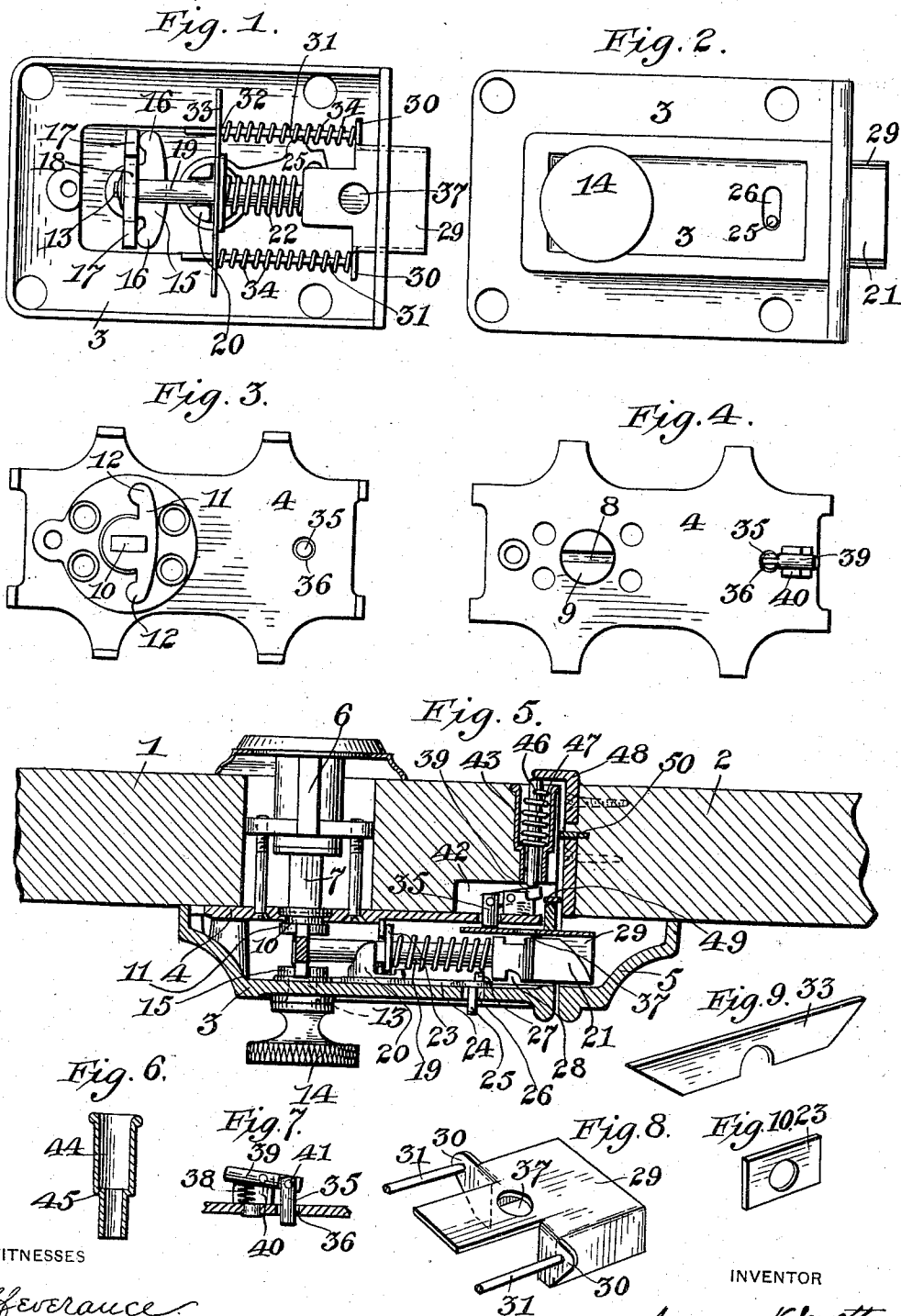


(No Model.)

A. V. JEWETT.
LOCK.

No. 542,563.

Patented July 9, 1895.



WITNESSES

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LOCK.

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Application filed February 9, 1895. Serial No. 537,829. (No model.)

To all whom it may concern:

Be it known that I, AMERICUS V. JEWETT, a citizen of the United States, residing at Abilene, in the county of Dickinson and State of Kansas, have invented certain new and useful Improvements in Locks, of which the following is a specification.

My invention relates to improvements in locks, and its object is to provide additional safeguards or protection to certain forms of locks now very commonly used.

By reason of an extensive series of burglaries committed in the locality where I reside my attention has been drawn to defects in certain kinds of locks. It has been found that most doors fitted with spring night-latches—that is, spring-actuated latches having beveled outer ends—could be opened from the outside by the insertion of one or more thin pieces of steel in the interstice between the door and the door-jamb, or between the doors in the case of double doors.

The object of my invention is to render any such manipulation of the lock impossible.

My invention therefore consists in the novel construction, combination, and arrangement of the parts for this purpose, hereinafter fully specified, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of the interior of the bolt-casing removed from the door. Fig. 2 is a view of its exterior. Fig. 3 is a view of the inner side of the casing-plate. Fig. 4 is a view of its outer side or the side in contact with the door. Fig. 5 is a horizontal section through the lock and a portion of the door and door-jamb adjacent thereto, and Figs. 6, 7, 8, 9, and 10 are detail views.

Referring to the drawings, 1 represents the door and 2 the door-jamb.

3 is the bolt-casing, and 4 the casing-plate. 5 is the bolt-socket.

6 is a common Yale lock secured to the casing-plate by screws in the well-known manner.

7 is the locking-tongue vibrated by means of the key through the mechanism of the lock and its end entering a groove 8 in the head 9 of a stem 10, passing through a bearing in the casing-plate, upon the projecting end of which is secured a cam 11, having cam-

fingers 12. Likewise through the casing 3, opposite to the stem 10, passes a stem 13, upon the outer end of which is secured a milled head or knob 14, and on the inner end is a cam 15, similar to the cam 11 and having fingers 16. The cam-fingers 12 and 16 contact with upper and lower arms 17 of an extension or cross head 18 on the end of the bolt-stem 19 which slides in a bearing 20 supported upon the casing, and carries the bolt-head 21, adapted to be projected into the socket 5. A spiral spring 22 surrounds the bolt-stem 19 and presses at one end against the bolt-head and at the other against a plate 23 supported against the bearing 20, thus serving to project the bolt forward out of the casing when not otherwise restrained.

To retain the bolt within the casing, an arm 24 is provided pivoted on the casing, preferably at the base of the bearing 20, and having a finger 25 projecting outwardly through an elongated aperture 26 in the casing, whereby said arm may be vibrated on its pivot, and having a stud 27, projecting inwardly and adapted to enter a recess 28 on the face of the bolt-head when the bolt is withdrawn, and so retain the bolt within the casing.

The construction hitherto specified is old and well known and forms no part of my invention, which I will now particularly describe.

29 represents a protecting plate or shield, and I preferably form this as of three sides of a rectangle in cross-section, so as to inclose the bolt on its outer surface and top and bottom. The shield 29 has a wing 30 extending downwardly and outwardly on each side, and upon said wings are secured rods or stems 31, the other ends of which pass through holes 32 in a plate 33, which is recessed centrally to lie over the stem 19, and is supported by the bearing 20 against the pressure of the spiral springs 34, encircling the stems 31 and pressing at their other ends against the wings 30, thus serving to project the shield 29 out of the casing unless the latter be otherwise restrained. To hold the shield within the casing when the door is opened there is provided a rod 35, moving through an aperture 36 in the plate 4, the end of the rod resting upon a rearward extension 36 of the shield 29 when said shield projects from the casing and lying

in the path of a circular perforation 37 through said shield, into which when said shield is pressed backward into the casing said rod is projected by means of a spring 38, pressing upward the end of a short lever 39, pivoted upon a standard 40, the other end of said lever being jointed at 41 to said rod 35. The inner surface of the door is recessed at 42, near its edge, to receive the rod 35, spring 38, lever 39, and standard 40, and its edge is also recessed at 43 to receive a small casing 44, having at its lower end a bearing 45 for a push-rod 46, which is adapted to press upon the end of the lever 39 opposite the spring 38, but is normally pressed outward by the spiral spring 47, one end of which spring rests upon said bearing and the other is secured to said push-rod. A stop 48 is removably secured to the door-jamb, having a projecting piece adapted upon the closing of the door to come in contact with the end of the push-rod 46, pushing the same inward.

The operation of the device will be readily understood from the disclosure of its construction. Upon withdrawing the bolt 21, either by the key or by the knob 14, the bolt-head, abutting against the downwardly-bent portions of the protecting-plate 29, will carry it backward with itself until the perforation 37 comes underneath the end of the rod 35, whereupon said rod will be forced by the spring 38 into said perforation and will act as a detent to withhold the shield within the casing, the bolt, however, being free to project outwardly under the pressure of the spring 27 upon the cessation of the force which withdrew it, no change having been made in the lock in this respect. Thus upon the closing of the door the bolt itself will first be projected into its locking position in the usual manner, and then upon the end of the push-rod 46 coming in contact with the stop 48 said contact, through the lever 39, will raise the rod 35 out of the perforation 37 and permit the shield 29 to spring forward under pressure from the springs 34.

If found desirable, the stop 48 may be removed and the shield released by pressure on the finger at will upon the end of the push-button 46.

I have also devised stationary shields to be interposed between the bolt and the outside of the door. One of these I have shown in the form of a narrow plate 49 let into the edge of the door, and another as a similar plate 50 let into the edge of the casing, either or both serving to prevent access from the outside to the beveled surface of the bolt to manipulate the same.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a door-lock, the combination, with a bolt, bolt casing, and bolt socket, of a movable protecting plate or shield adapted to project from the edge of the door in front of the bolt, said shield being engaged by said bolt and moved inwardly therewith when the latter is withdrawn, and means for projecting said shield, independent of the means for projecting the bolt, substantially as described.

2. In a door-lock, the combination, with a bolt, bolt casing, and bolt socket, of a spring-actuated protecting plate or shield adapted to project from the edge of the door in front of the bolt when projected from its casing, whereby access can not be had to said bolt from the outside when the door is closed, substantially as described.

3. In a door-lock, the combination, with a bolt, a bolt casing, and a bolt socket, of a movable plate or shield adapted to be projected past the edge of the casing and interposed in front of the end of said bolt when projected from its casing, whereby access can not be had to said bolt from the outside when the door is closed, a spring for projecting said shield, and a push rod for releasing said spring, substantially as described.

4. In a door-lock, the combination, with a bolt, a bolt casing, and bolt socket, of a protecting plate or shield adapted to project from the edge of the door in front of the bolt when the latter is in its locking position, whereby access can not be had to said bolt from the outside when the door is closed, operative mechanism for projecting said shield; and a stop on the door-jamb coming into engagement with said operative mechanism when the door is closed and actuating the same to project said shield, substantially as described.

5. In a door-lock, the combination, with a bolt, a bolt casing, and bolt socket, of a protecting plate or shield adapted to project from the edge of the door in front of the bolt when the latter is in its locking position, whereby access can not be had to said bolt from the outside when the door is closed, a spring detent restraining said shield within said casing when the door is open, a trip arranged to trip said detent to release said shield, and a stop on the door-jamb engaging said trip on the closing of the door to project said shield, substantially as described.

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Witnesses:

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