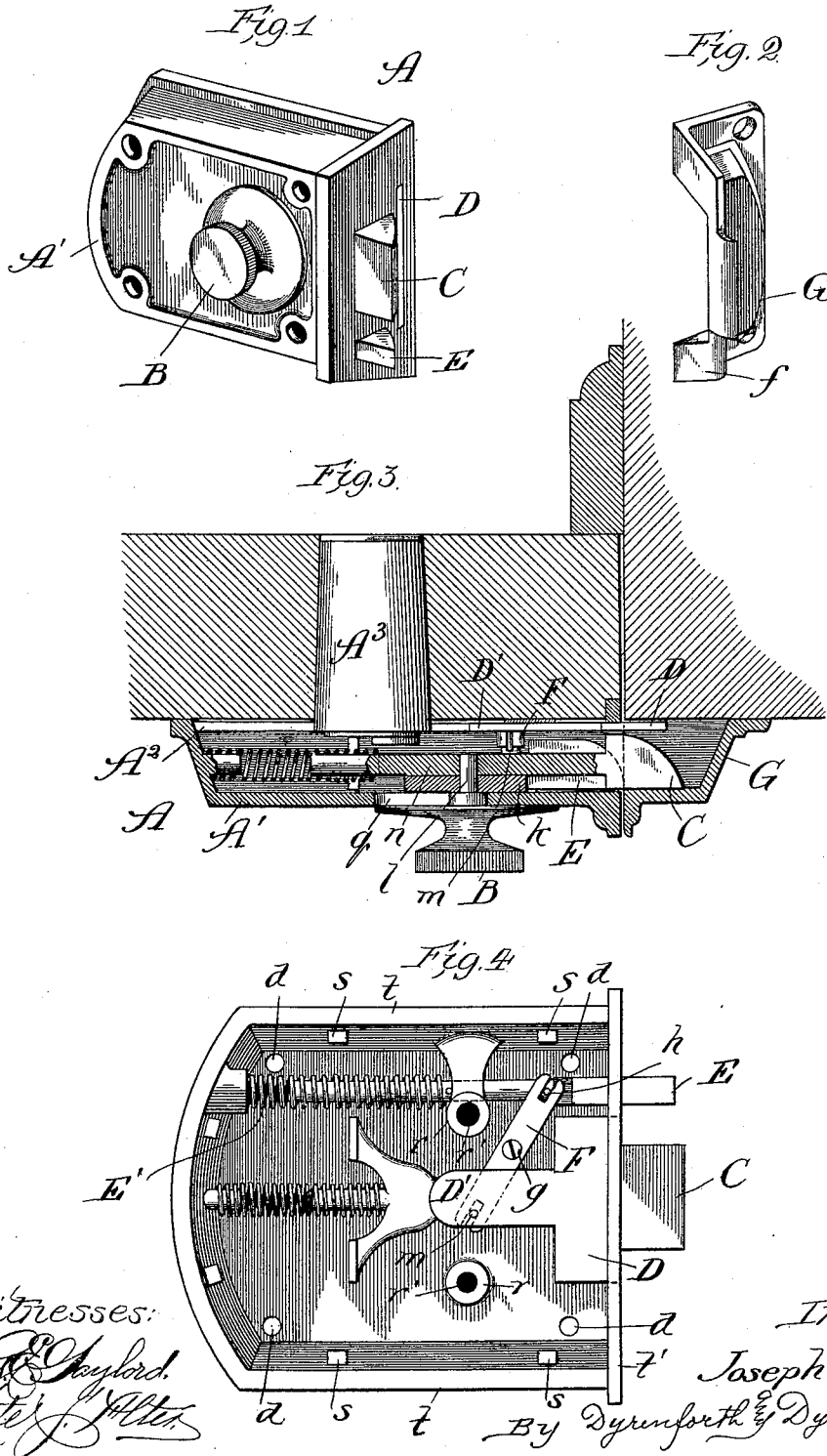


(No Model.)

J. BARTL.
GUARD FOR DOOR LOCKS.

No. 583,222.

Patented May 25, 1897.



UNITED STATES PATENT OFFICE.

JOSEPH BARTL, OF CHICAGO, ILLINOIS.

GUARD FOR DOOR-LOCKS.

SPECIFICATION forming part of Letters Patent No. 583,222, dated May 25, 1897.

Application filed June 15, 1896. Serial No. 595,651. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH BARTL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Guards for Door-Locks, of which the following is a specification.

My invention relates to an improvement in door-locks, more especially of the class known as "spring-locks," and has for its object to provide a guard which shall prevent the lock-bolt from being forced back by the use of an instrument inserted between the door and door-jamb.

The preferred means of automatically operating the guard is shown in the accompanying drawings, and consists, briefly stated, in a plunger held normally to project beyond the face-plate of the lock-casing under the action of a spring and a lever pivoted in the casing and engaging at one end the plunger and at the other end a sliding guard-plate. The projecting end of the plunger is beveled, and as the door is closed the beveled portion engages the keeper on the door-jamb and is forced back into the casing, thus turning the pivoted lever and forcing out the guard, causing it to extend between the bolt and the opposite side of the door.

In the drawings, Figure 1 is a perspective view of a lock provided with my improvement; Fig. 2, a similar view of a keeper; Fig. 3, a broken horizontal section through the door, jamb-post, lock, and keeper; and Fig. 4, an interior view of the casing, showing the working parts, the casing-plate which fits against the door being removed.

A is the lock-casing, comprising, preferably, a housing portion A', provided with a flange t to give room for the operative parts, and an inner plate or covering A², which fits within the flange and rests upon lugs s, provided for the purpose.

The part A' is provided on its interior with lugs r, having screw-holes r', at which points the plate A² is secured to the casing, and also with a longitudinally-extending slot q for the reception of the shank of an operating-handle B for the lock-bolt C. That portion of the flange t of the casing A' which acts as the face-plate t' of the lock is wider than the

remainder of the flange and is provided near its edge with a slot for the guard-plate and more centrally with openings for the lock-bolt C and a plunger E.

C is the spring-held lock-bolt, which slides through the opening in the face-plate in the ordinary manner and to the shank n of which is attached the operating-handle B. The operating-handle B is provided with a shank l, which extends through the slot q in the side of the casing and passes through a longitudinally-sliding strip k on the inside of the case, to which it is firmly attached. At its inner end the shank fits loosely into an opening in the lock-bolt C. When the bolt is retracted, the handle B may be turned to turn the strip k into engagement with a lug, and thereby hold the bolt retracted. As this feature is old in locks of this class and forms no part of my invention, it is not thought necessary to show or describe it in detail.

D is the guard-plate, having a shank D', which is provided with a pin m and slides upon the inner face of the covering-plate A².

E is the plunger, which works within the aforesaid opening in the face-plate of the casing and through an opening in one of the lugs r, as indicated. The plunger is held, under the action of a spring E', to project normally beyond the face-plate of the casing, as shown in Fig. 4, and is provided at its shank with a pin h.

F is a lever pivoted toward its center upon a standard g, which is a part of the casing and of sufficient length to correspond with the opening in the face-plate of the casing provided for the guard-plate D. The lever has its ends slotted to receive the pins m h upon the guard-plate D and the plunger E, respectively. When the plunger E is forced in, the pin h engages the lever F, and the latter, through the medium of the pin m, forces out the guard-plate D, and when the plunger is released the spring E' forces it out and draws back the guard-plate.

Fig. 2 shows a keeper G, which I prefer to provide with an inclined surface f to contact with the beveled surface of the plunger E and force the latter in when the door is closed.

The lock shown is intended for use upon the inner side of a chamber-door. The plate

A² is provided with a cylindrical extension A³, which passes through a hole in the door and affords a keyhole. The lock may be secured to the door by screws which pass through screw-holes *d*, provided at the corners of the casing.

In practice the guard-plate D remains sheathed till the door is closed and the plunger E brought into contact with the keeper G, when the guard-plate is forced out through the medium of the plunger and lever, as stated. Owing to the relative positions of the plunger and guard-plate the latter will not be forced out till it has passed within the keeper, thus adapting it particularly to a swinging door.

It is evident that the manner of arranging and operating a movable guard for the purpose stated may be variously modified without departing from the spirit of my invention. Hence I do not wish to be understood as in any sense limiting my improvement to the particular construction shown.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a door-lock, the combination with the casing, bolt, bolt-operating mechanism and keeper, of a plunger in the casing extending normally beyond the casing face-plate to engage and be retracted by the keeper when the door is closed, and a movable guard-plate for the bolt, normally retracted and operatively connected with the plunger whereby it is ad-

vanced by the retraction of the plunger, substantially as and for the purpose set forth.

2. In a door-lock, the combination with the casing, bolt, bolt-operating mechanism, and keeper, of a guard-plate for the bolt reciprocable through an opening in the face-plate of the casing, a pivoted lever in the casing engaged toward one end by the guard-plate, and a spring-held plunger engaging said lever toward its opposite end and extending normally beyond the face-plate of the casing to engage and be retracted by the keeper to project the guard-plate when the door is closed, substantially as and for the purpose set forth.

3. In a door-lock, the combination with the casing, bolt, and bolt-operating mechanism, of a guard-plate for the bolt reciprocable through an opening in the face-plate of the casing, a lever pivoted toward its center in the casing, a pin-and-slot connection between the guard-plate and lever, a spring-held plunger projecting normally beyond the casing, and engaging said lever through the medium of a pin-and-slot connection, and a keeper having a plunger-retracting face, all constructed and arranged to operate substantially as described.

JOSEPH BARTL.

In presence of—

J. H. LEE,
R. T. SPENCER.