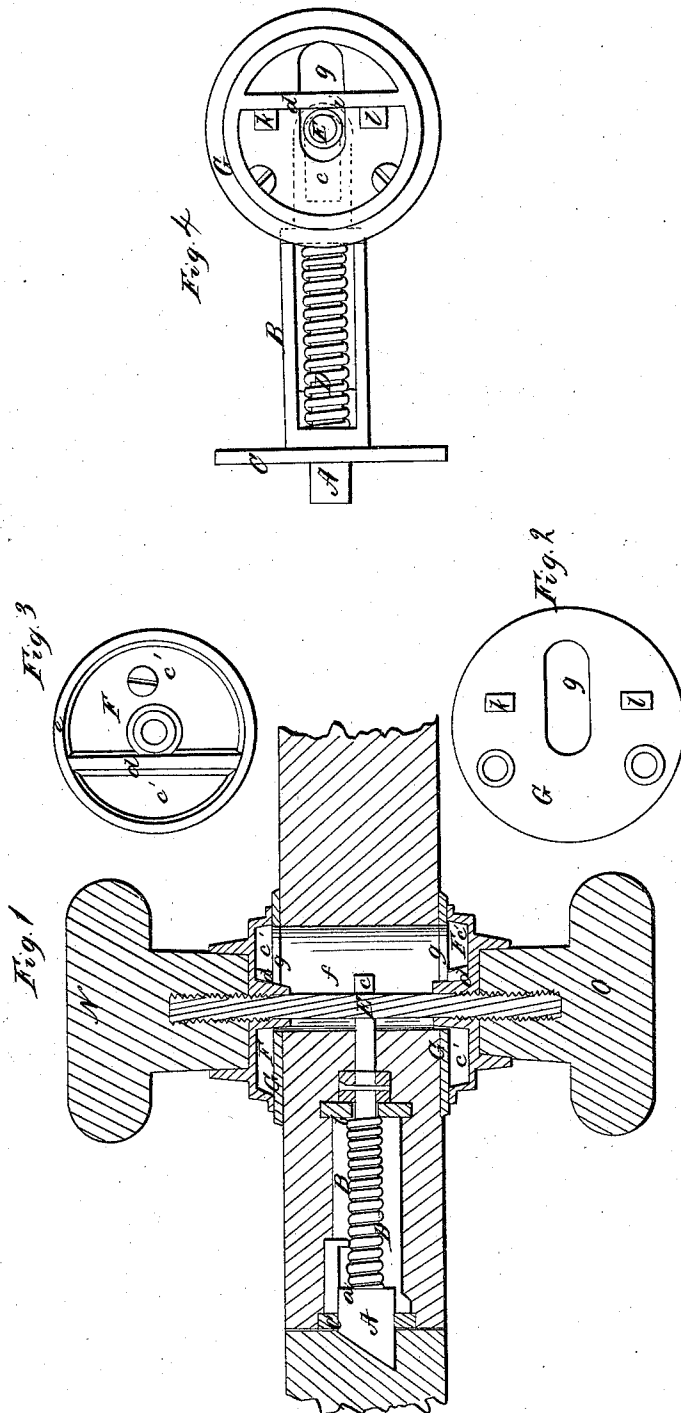


A. Bingham,
Latch.

N^o 3,611.

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UNITED STATES PATENT OFFICE.

ALBERT BINGHAM, OF BOSTON, MASSACHUSETTS.

MODE OF OPERATING SPRING-BOLTS IN DOOR-FASTENINGS.

Specification of Letters Patent No. 3,611, dated June 5, 1844.

To all whom it may concern:

Be it known that I, ALBERT BINGHAM, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement or Mode of Actuating Spring-Bolts of Doors, and that the following description and accompanying drawings taken together constitute a full and exact specification of the construction and operation of my invention.

Figure 1, of the drawings above mentioned represents a horizontal section of that part of a door to which the lock, or latch is usually applied, the same exhibiting my improvement in part, and being taken through the center of the knobs, and spring bolt. Fig. 2, is a front view of the escutcheon plate of the knob. Fig. 3 is a view of the lower side of the socket of the knob, or of that part of the socket, which is placed immediately against, or in opposition with the escutcheon plate; and Fig. 4, is a diagram, to exhibit the arrangement together and operation of the spring bolt, knobs, etcetera.

A, Fig. 1, and 4, denotes a bolt, inserted within a tube or case B, projecting at right angles from a plate C. The bolt is shot forward, after retraction, by means of a helical spring D, which encircles its shank and bears at one end against a shoulder *a*, formed on the bolt; and at the other against a cross head *b*, of the bolt case, and through which the shank of the bolt extends. The shank has a stirrup, or eye piece *c*, affixed to its end, which projects through the head *b*, and is shaped as seen in Fig. 4. The shank E, of the knobs passes directly through the stirrup or orifice, and so as to be in contact with the rear part thereof, as represented in the drawings.

The lower part or underside of the socket F, of a knob is usually hollowed out or has a circular cavity formed in it as seen at *c'*, *c'*, *c'*, Fig. 3. Across and within this cavity and in rear of the central hole for the reception of the shank E, of the knob, a rib or ledge *d*, is cast or secured to the socket, as seen in Fig. 3, the said rim extending from one part of the circumscribing rim *e*, of the cavity *c'*, to the opposite part thereof. When the knob is applied to the door, this rib is arranged in a vertical direction. The escutcheon plate G, of the knob

has an elongated slot, or opening *g*, formed through it, and extending rearward horizontally from its center as seen in Fig. 2; and when two of the said escutcheon plates are applied to a door, (one on each side thereof and directly opposite to each other) an elongated opening *f*, Fig. 1, corresponding with, and joining the openings of the escutcheon plates should be formed through the door, for the shank of the knobs to pass through and move in. This opening, and the slot in one or both of the escutcheon plates, may be considered as forming one opening or passage, for the reception of the shank of the knobs, and which I denominate the opening *g'*.

The escutcheon plate has two projections or studs, *k*, *l*, cast upon, and extending from it, above and below the slot *g*, as represented in Fig. 2. Their projections extend into the cavity *c'*, of the socket of the knob, and rest against, or in apposition with, the front side *i'*, *i'*, of the rib *d*, as seen in Fig. 4, which represents a vertical section of the cavity of the socket of the knob, and exhibits escutcheon plate in the rear, and the spring bolt, and case in the positions they take, when affixed to a door.

When the hand is applied to one of the knobs, N, or O, in such manner as to turn the same, and the shank thereof, the front side *i'*, *i'*, of the rib *d*, will be brought into contact, or borne against one or the other of the projections *k*, *l*, and will cause the shank of the knobs to move back, through the slots and opening *g*, and thus carry, or draw the spring bolt back with it. The spring bolt may also be retracted by simply pressing the hand against the front side of one of the knobs.

From the above it will be seen, that the spring bolt may be actuated either by turning one of the knobs, or by pushing it back. One peculiar advantage of such an arrangement consists in the facility it offers of opening a door, when a person is unable to apply one of his hands to the knobs to turn it. By simple pressure against the knob this object is at once effected. Besides, the above peculiar method of constructing the spring bolt and connecting it with the knobs renders it very easily fitted to a door. The spring bolt is confined in a circular cavity or bitt hole or mortise (formed in the door)

by screws which pass through the plate C; and the escutcheons should also be secured to the door by screws.

I claim—

- 5 The ledge or rib *d*, (applied and affixed to the socket or shank of the knob) in combination with one or two studs *k*, *l*, (inserted in, and projecting from the door, or from an escutcheon plate G, affixed to the door)
- 10 and an opening slot or passage *g'*, cut or formed through the door and escutcheon plates, for the shank of the knobs to move through horizontally; the whole being con-

structed, arranged and operating substantially as above described and for the purpose of retracting the spring bolt either by turning or sliding the knob or knobs in the manner set forth. 15

In testimony that the foregoing is a correct specification of my said invention I have hereto set my signature this tenth day of April in the year A. D. 1844. 20

ALBERT BINGHAM.

Witnesses:

R. H. EDDY,
D. A. GRANGER.