(No Model.)

# J. B. SCHRODER.

## LOCK BOLT FOR DOORS.

No. 313,888. Patented Mar. 17, 1885.

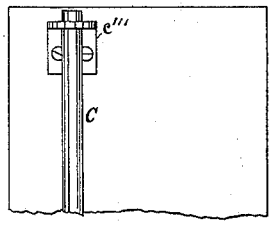
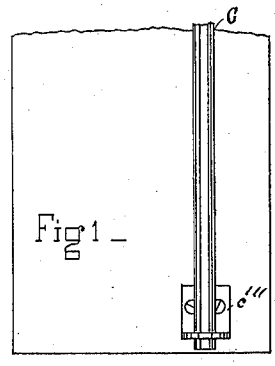



Fig 1.



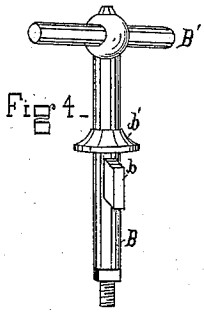
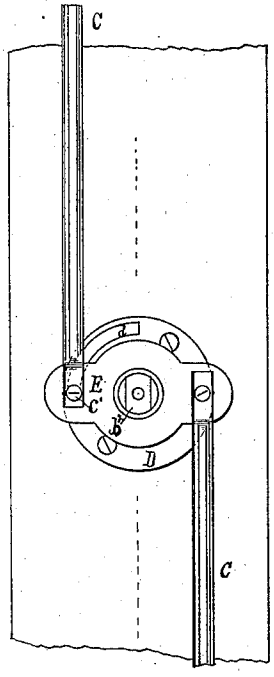




Fig 4.



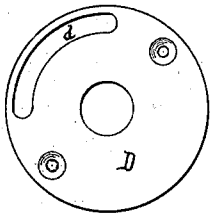




Fig 5.

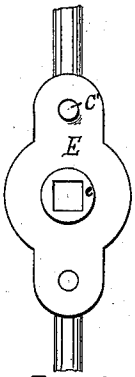



Fig 6.

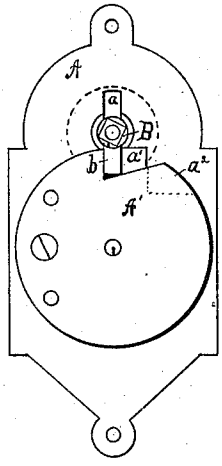
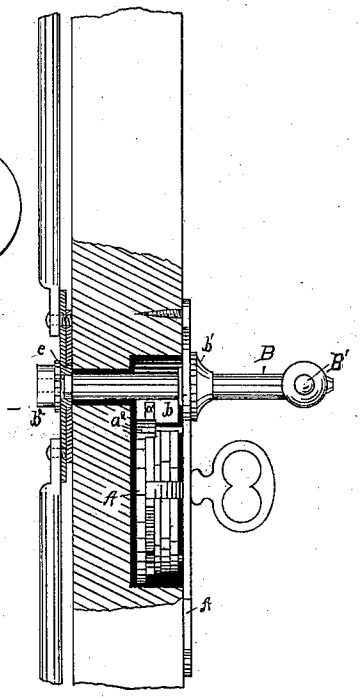



Fig 3.



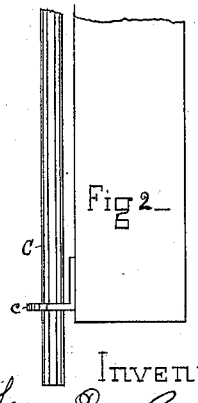




Fig 2.

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# UNITED STATES PATENT OFFICE.

JOHN B. SCHRODER, OF CINCINNATI, OHIO.

## LOCK-BOLT FOR DOORS.

SPECIFICATION forming part of Letters Patent No. 313,888, dated March 17, 1885.

Application filed December 19, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN B. SCHRODER, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Lock and Bolt Work for Doors, of which the following is a specification.

The object of my invention is a fastening and lock for doors, and is especially designed for use on furniture-doors, such as book-cases, show-cases, and similar articles.

It consists of a peculiar arrangement of devices to operate the bolts, and in connection therewith a convenient means to lock the bolts when desired, all of which will be first fully explained in connection with the accompanying drawings, and then particularly referred to and pointed out in the claims.

In the accompanying drawings, in which similar reference-letters indicate identical parts wherever they occur, Figure 1 is an elevation of a door-stile provided with my improvements. Fig. 2 is an edge view of the same, partly in elevation and partly in vertical section. Part of the stile is broken away to show an edge elevation of the lock and handle in place, and a vertical section of the plates on the inside of the stile. Fig. 3 is a rear elevation of the lock and handle. Fig. 4 is a side view of the handle and spindle. Fig. 5 is a plan view of the inside slotted plate which limits the movements of the bolts. Fig. 6 is an inside plan of the plate which couples the bolts and spindle.

The front plate, A, of the lock may be made of any suitable design, and is capable of being highly ornamented. It thus serves the double purpose of lock-plate and ornamental escutcheon. The back plate, A′, which incloses the lock-work between it and plate A, is preferably circular in form, so that it may be let into the stile by the common boring-bit. One hole is bored in the front of the stile of a size and depth to receive the lock-case A′, and another smaller one of the same depth and of the diameter indicated in dotted line in the plate A, Fig. 3, to receive the spindle B and its bit *b* and permit the same to turn freely. The center of this upper depression is coincident with the axes of the spindle, and after this depression is formed a smaller hole concentric with it is bored through the stile for the passage of the inner end of the spindle-shank. The plate A has a slot, *a*, to permit the bit *b* of the spindle to pass through it. This slot is concealed by the collar *b′* when the parts are put together. The cap-plate A′ of the lock is cut away to permit the bit *b* of the spindle to turn to a vertical position, as seen in Fig. 3, in which position it is stopped by the vertical edge of the notch, so that when the bolt *a′* of the lock is thrown up alongside of the bit *b* the spindle B and the bolts C, which are actuated by it, are firmly locked. The bolt of the lock is braced against lateral displacement by force applied to the handle of the spindle by stump $a^2$, projecting down from cap A′. On the inside of the stile is secured a plate, D, which has a central perforation to register with the perforation in the stile, and an annular slot, *d*, to receive the inner end of the screw which secures one of the bolts C to the piece E. The piece E has a hub, *e*, projecting from its inner side to enter the perforation in plate D. This hub has a square opening to receive the inner angular end of the spindle B. The end of the spindle is screw-threaded to receive the nut $b^2$, which has, preferably, a flange or hub to project into the hole in piece E against the square shoulder of the spindle and prevent binding when the screw is tightened to its place. The bolts C have their ends flattened to receive the screws which couple them to the spindle-piece E. Their outer ends pass through bracket-lugs $c'''$, secured upon the stile near each end. The handle of the spindle is preferably a cross-bar, B′, so placed that it will occupy a horizontal position when the bolts C are protruded, to provide for the ready insertion of the lock-key. This bar will occupy a vertical position when the bolts are retracted. The position of the bar will thus indicate in what position the bolts are. The upper and lower cross-pieces of the case are therefore not liable to be injured by closing the door when the bolts are shot out, nor is any one liable to throw the bolt of the lock except when the bit *b* of the spindle is in a position to be locked. In cases where it is not necessary to lock the bolts the lock-cap A′, the lock mechanism, and

the spindle-bit *b* may be omitted. In these cases the stile need only be bored to receive the spindle.

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

1. The combination, with a door-stile and bolts C, of the spindle B, having boss *b'*, to bear against a plate or escutcheon on the front of the stile, and an angular inner portion and reduced screw-threaded end, the flanged nut *b²*, the plate D, having annular slot *d*, and spindle-plate E, having hub *e*, said plate E being secured to the spindle and the bolt C joined to the plate E by screws *c c'*, the screw *c'* passing through the plate and projecting into the slot *d* in plate D, to limit the throw of the bolts, substantially as specified.

2. The combination, substantially as specified, with a bolt-actuating mechanism consisting of the spindle B *b b' b²* and piece E, of the spindle-lock consisting of the plate A, notched lock-cap A', and the lock mechanism located between the front plate, A, and back plate, A', and having its bolt *a'* arranged to pass up against the side of the spindle-bit *b* and secure it against turning.

3. The bolt-actuating and bolt-locking devices hereinbefore described, consisting of the lock-plates A A' and inclosed locking mechanism, the spindle B, having bit *b* and collar *b'*, the slotted plate D, and spindle-piece E, the said parts being constructed and combined substantially as specified.

JOHN B. SCHRODER.

Witnesses:
GEO. J. MURRAY,
CASPER MILES.