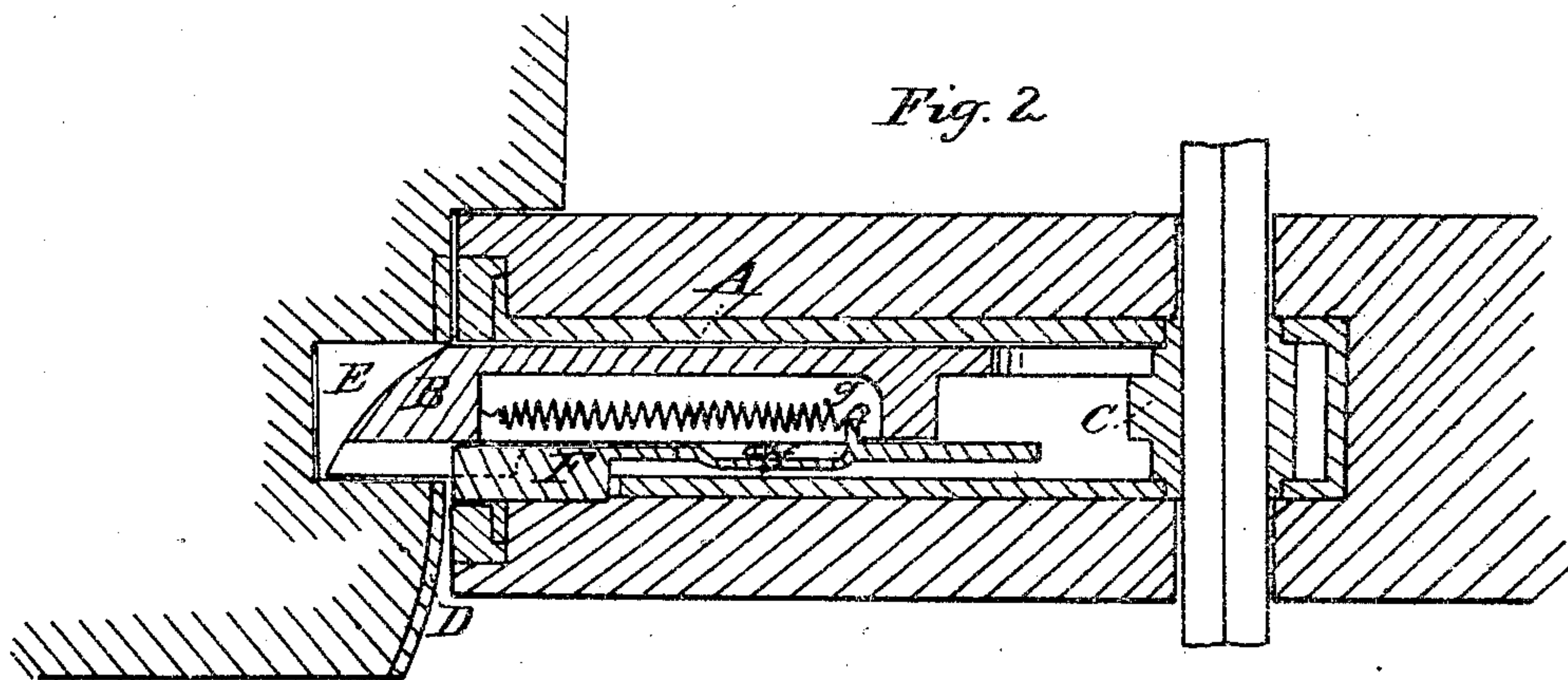
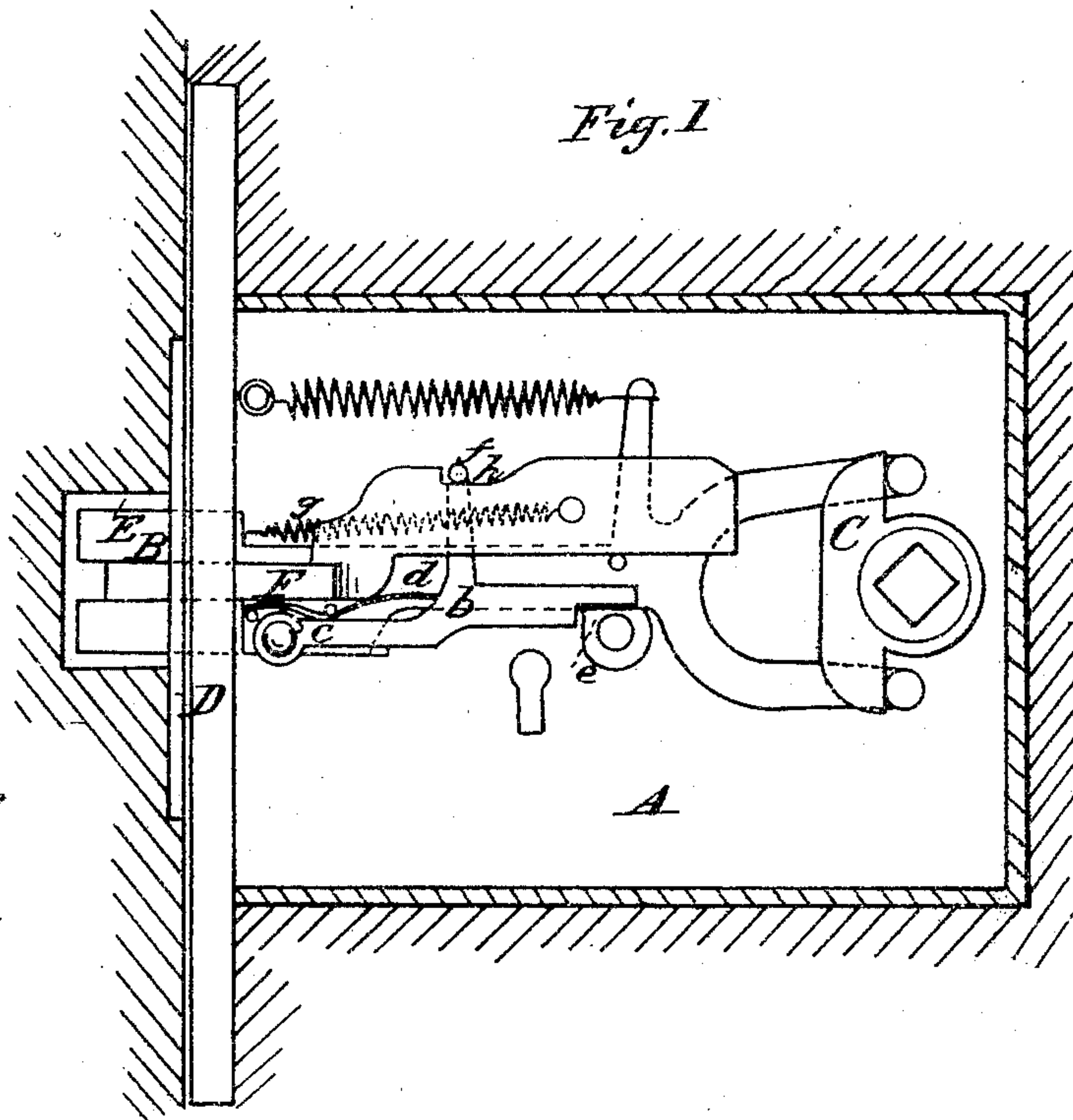


H. C. Storrs.

Knob-Latch.

N^o 73666

Patented Jan. 21, 1868.



Witnesses

McComly
Geo Reed

Inventor

H. C. Storrs

United States Patent Office.

H. C. STORRS, OF NEW YORK, N. Y.

Letters Patent No. 73,666, dated January 21, 1868.

IMPROVEMENT IN LOCKING KNOB-LATCHES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, H. C. STORRS, of the city, county, and State of New York, have invented a new and useful Improvement in Locks or Latch-Bolts, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents an interior face view of a lock constructed according to my improvement, and

Figure 2 a sectional view at right angles to fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to latch-bolts or locks that, on closing to the door, cause the bolt to spring into catch with the jamb or other fixture; and the invention consists in a combination, with such latch-bolt, of a locking-bolt to the latter, so applied, constructed, and operating that, while it does not interfere with the inward and after outward shooting into catch of the latch-bolt, on and by the operation of closing the door, operates automatically, or by said movement of closing to the door, to lock the latch-bolt, so that the latter is restrained from being opened or shot back without first, by any suitable special contrivance, such as a knob or key, being released from hold on it of the locking-bolt.

While my invention is capable of various modifications or different constructions, the arrangement represented in the accompanying drawing will suffice to explain it.

In said drawing, A represents the lock or latch-case, and B the main or ordinary latch-bolt, that may be opened by turning a hub, C, through knob connected therewith, from either or both sides of the door, or that may be shot or forced inwards by the bevelled nose of the latch-bolt striking, on closing the door, a plate, D, or projecting portion of the jamb, (or it may be second door, or other equivalent obstacle,) and so that, on the door being shut, said latch-bolt is thrown, by the action of a spring, into gear or catch with a recess, E, substantially as in various well-known latch-bolts or locks. To such latch-bolts or locks it is customary to attach locking-bolts or catches to prevent the latch-bolt being opened till released from hold on it by the locking-bolt, and which may be done by the application of a slide, knob, or key; but in all such previous constructions, this locking-bolt has required a separate manipulation to shoot it into lock with the latch-bolt on closing the door, so that in case of this separate manipulation being omitted or neglected, the door may be opened by simply working the main latch or latch-bolt. This, however, cannot be done by the arrangement represented in the drawing, where the latch-bolt B is shown as having combined with it a sliding-bolt, F, on the side or face thereof, which occupies a rear position to the bevel of the front end or nose of the bolt, and which, working through the front end of the lock-case, is arranged to project beyond the rear face of the latch-bolt, so that, on closing the door, not only will the latch-bolt B be forced inwards, but also the bolt F, by striking the plate or obstacle D, and will remain so forced inwards when the door is closed and after the latch-bolt B has shot forward into gear with the recess E. This bolt F, in thus being shot inwards, is held closed while the latch-bolt B flies into the recess E and causes an arm, b, pivoted, as at c, to the latch-bolt, and controlled by a spring, d, to shoot into lock with a stop, e, which prevents the latch-bolt from being forced inwards till a key or other special device is used to lift the arm b out of lock with the stop e. On the arm b being so raised, however, and the latch-bolt drawn back, the arm b slides back, with the bolt B, clear of the stop e, and is restrained from falling into lock therewith by a saddle, f, fast to the arm b, so that on again closing the door the bolt F is free to move backwards to establish lock of the latch-bolt, as before. A spring, g, serves to shoot the bolt F forwards when released; and an incline or recess, h, in said bolt admits of the depression of the saddle f when the bolt F is forced inwards by the plate D, and the spring d shoots the arm b into lock with the stop e.

It is not absolutely essential that the locking-bolt (which may be variously constructed) to the latch-bolt should slide in or on the latter, as it may be arranged above or below it, to operate substantially as described.

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

The combination of the locking-bar b, pivoted to the latch-bolt, with the bolt F and latch-bolt B, substantially as shown and described.

H. C. STORRS.

Witnesses:

J. W. COOMBS,

G. W. REED.