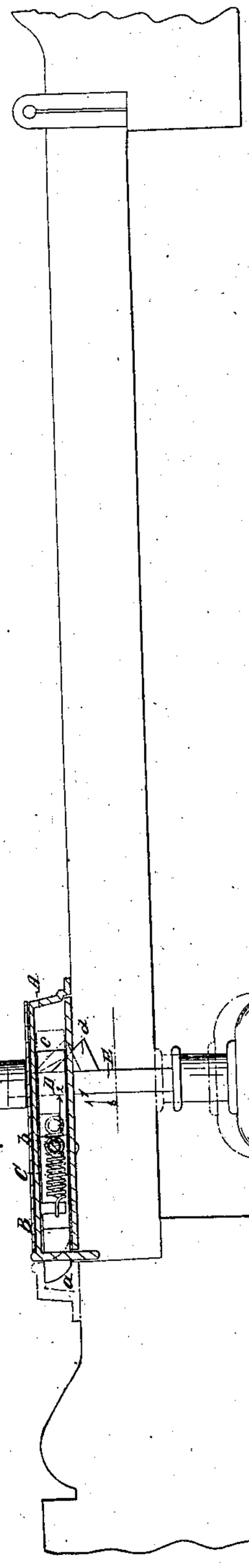
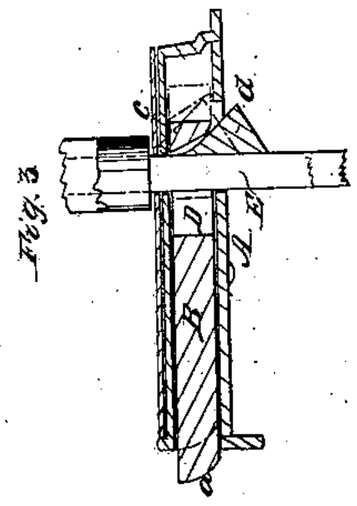
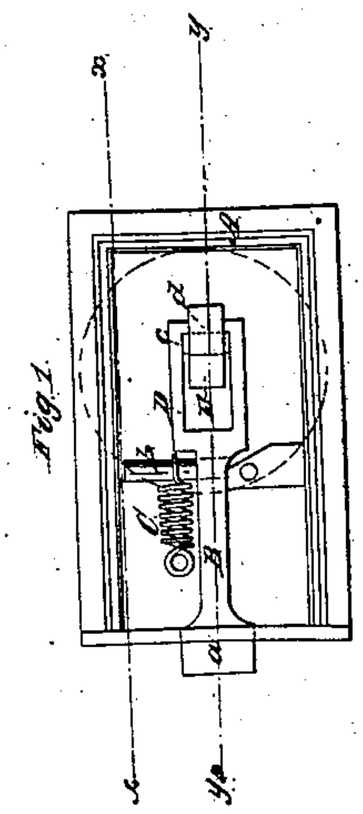
F. M. Crossett,

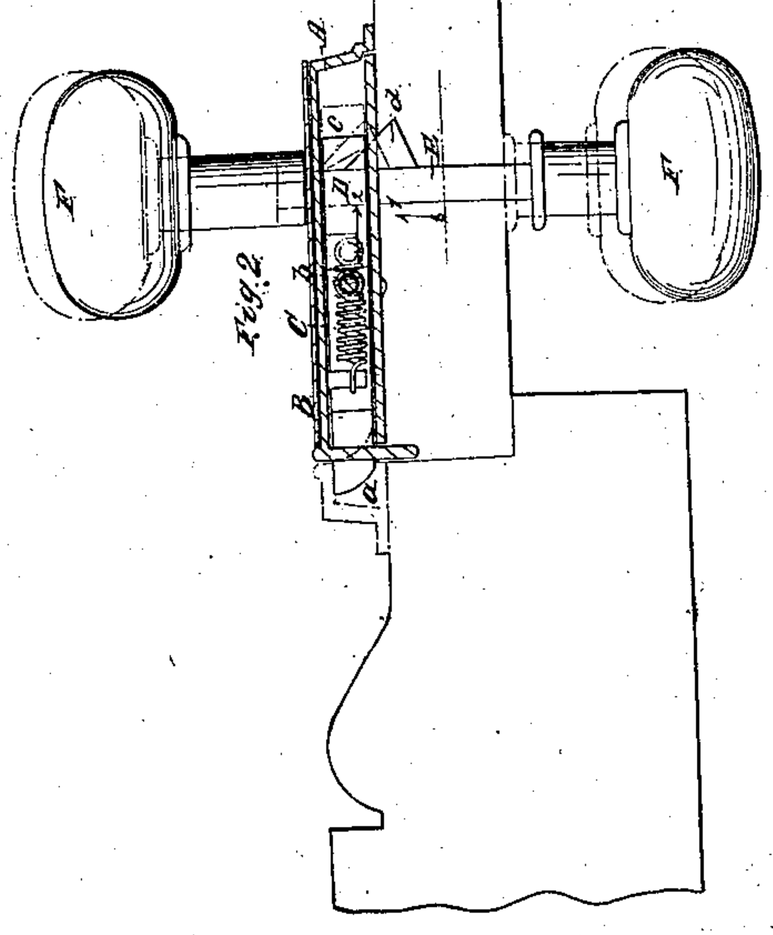
Latch.

No. 37,386 Patented Jan. 13, 1863.









Witnesses:
Timothy Shinn
W. S. Partridge

Inventor:
Franklin M. Crossett

UNITED STATES PATENT OFFICE.

FRANKLIN M. CROSSETT, OF PIERMONT, NEW YORK.

IMPROVEMENT IN DOOR-LATCHES.

Specification forming part of Letters Patent No. **37,386,** dated January 13, 1863.

To all whom it may concern:

Be it known that I, FRANKLIN M. CROSSETT, of Piermont, in the county of Rockland and State of New York, have invented a new and useful Improvement in Locks and Latches; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an internal view of a latch constructed according to my invention; Fig. 2, a horizontal section of the same applied to a door; Fig. 3, a horizontal section of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in arranging the spindle of the knobs with the latch in such a manner that the latch will be operated—that is to say, drawn within its case by a longitudinal sliding movement of the arbor instead of turning the same as hitherto, the advantage of which will be hereinafter explained.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the case of a latch or lock, which is of the usual rectangular form, and B is the latch which is fitted within the case A, and is provided at its outer end and at one side with the ordinary basil or bevel *a*. The latch B is allowed to slide freely in the case A, so that it may be drawn inward sufficiently far to admit of the end of the basil *a* being flush with the end of the case A, as shown in red outline in Fig. 2, and a spiral spring, C, is connected with the latch, said spring having a tendency to keep the basil *a* out from the case A. The spring C is attached at one end to the case A, and the opposite end of said spring is fitted on a vertical pin, *b*, on the latch. The inner part of the latch B is made in the form of a loop, D, as shown in Fig. 1, and the outer end of the loop at its inner side is beveled, as shown clearly at *c* in Fig. 3.

E represents the spindle to which the knobs F are attached. This spindle is of rectangular form in its transverse section, and it passes through square openings in the sides of the case A, and is allowed to slide freely in said openings. The spindle E also passes through the loop D of the latch B, and said spindle has a projection, *d*, attached to its right-hand side, which projection is near or in contact with the beveled surface *c* of the loop D. The edge of the projection *d*, which is opposite to the beveled surface *c* of the loop D, is made in bevel form, so as to correspond or be parallel with *c*, as shown in Fig. 3.

From the above description it will be seen that by pressing the spindle E in the direction indicated by the arrow 1 in Fig. 2 the latch B will be forced or moved in the direction indicated by arrow 2, said result being due to the beveled surface of the projection *d* acting against the beveled surface *c* of the loop D, and the basil *a* will be drawn within the case A and free from the strike or nosing, into which it fits when the door is shut, and when the spindle is relieved from the pressure by which it was first actuated the spring C will move the latch B outward to its original position, and also the spindle E.

It is designed to have the latch or lock applied to the door in such a manner that the door will be forced open by the same pressure which causes the latch to be forced into the case to free the basil *a* from the strike or nosing, and this application of the latch or lock to the door also admits at the opposite side of the door, the door being pulled open as the spindle is pulled to operate the latch.

The advantage of the invention consists in the facility with which the latch may be operated, a simple pressure on the spindle being only required at one side of the door and a pull at the opposite side. A person in carrying any burden which requires the use of both hands will not be compelled to place it down in order to operate the latch, as is the case where the ordinary turning spindles are used, for the pressure may be applied to the knob of the spindle at one side of the door by means of the knee or other part of the person, while at the opposite side the pull can be given by one or two fingers of the hand.

The invention does not involve any additional cost in the construction of latches or locks.

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

The loop D, formed at the inner end of the latch B, and provided with the beveled end or surface *c*, in combination with the projection *d* on the sliding spindle E, all arranged substantially as and for the purpose herein set forth.

FRANKLIN M. CROSSETT.

Witnesses:
GEO. W. REED,
M. S. PARTRIDGE.