J. J. KING.

LOCKING-LATCH.

No. 192,515. Patented June 26, 1877.

Fig. 1.

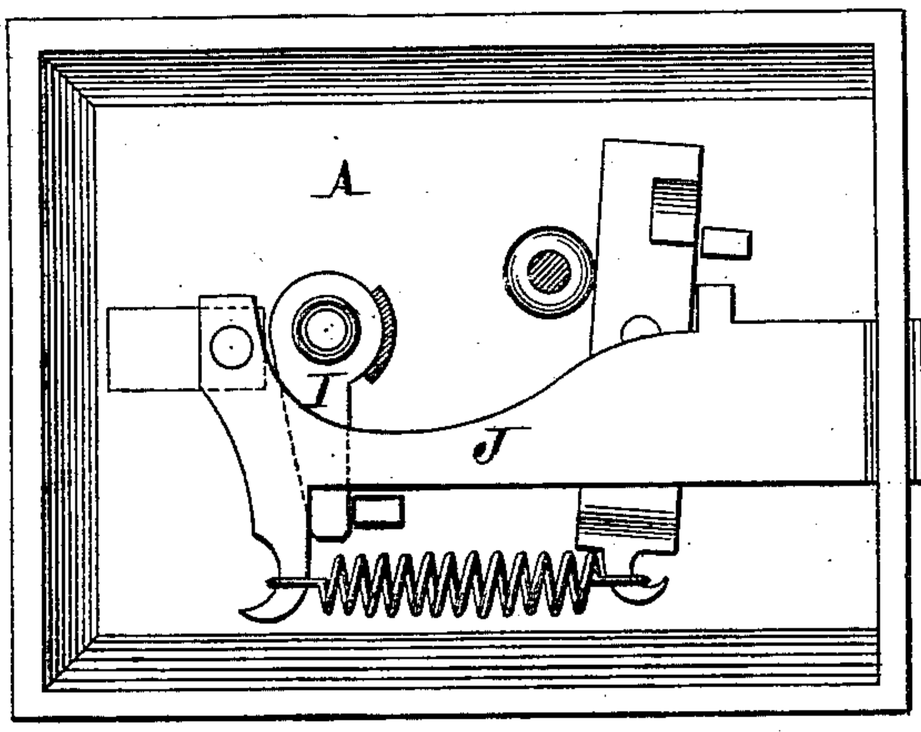


Fig. 2.

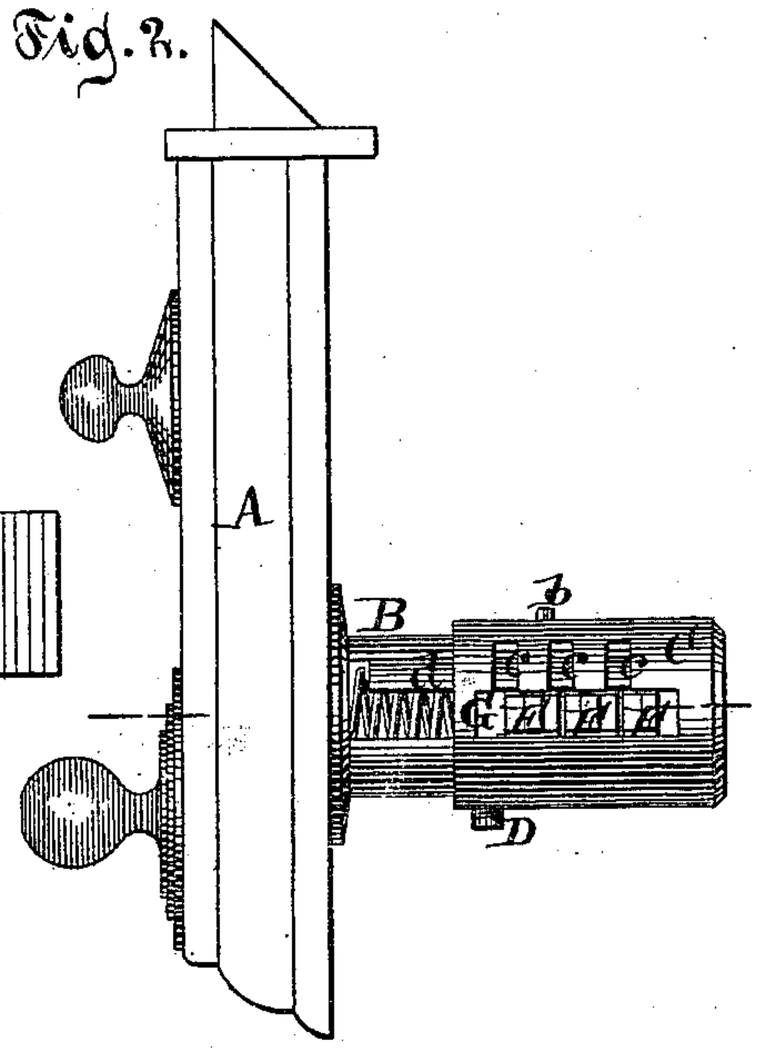


Fig. 3.

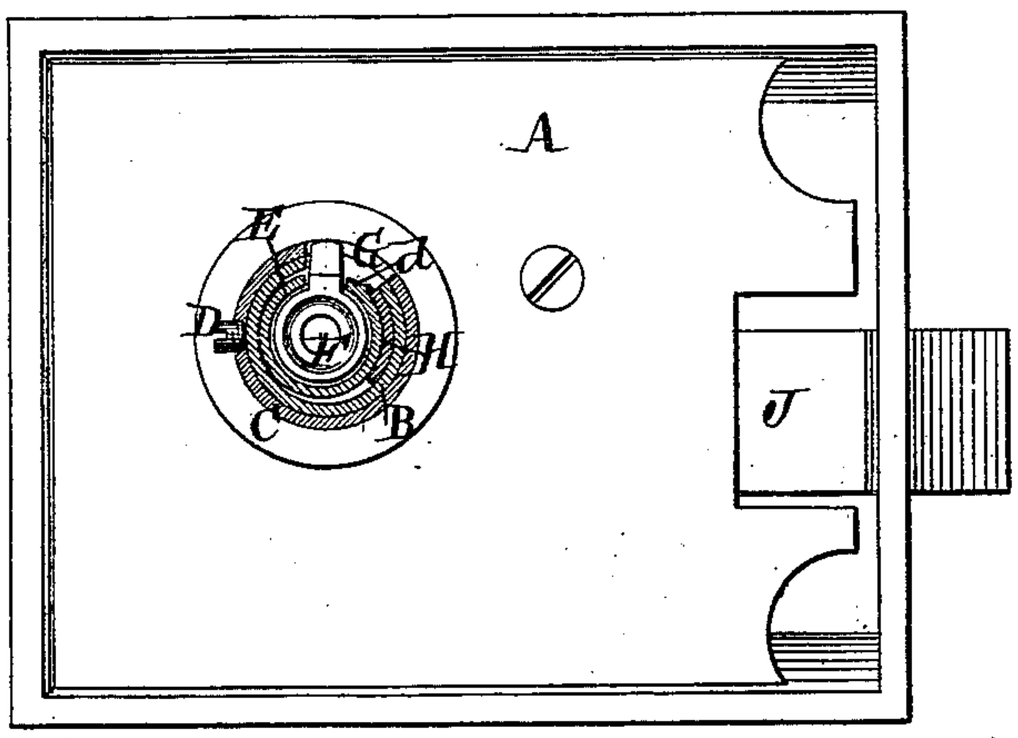


Fig. 4.

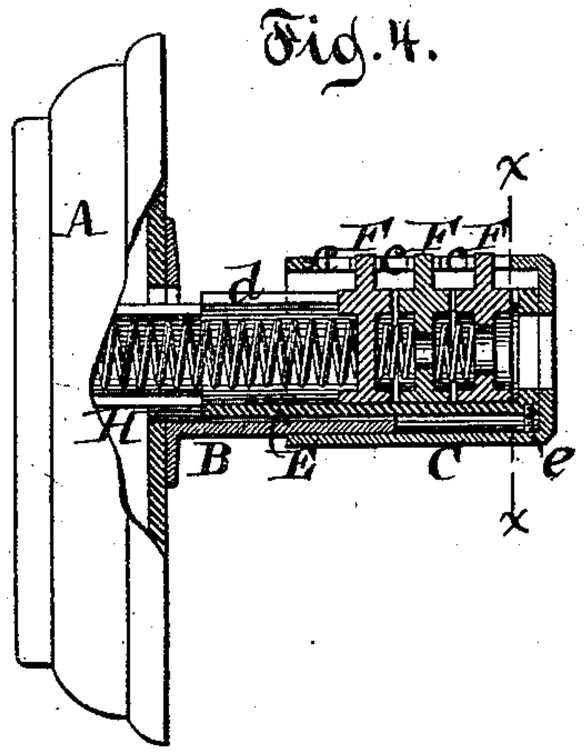


Fig. 5.

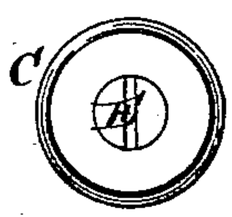


Fig. 6.

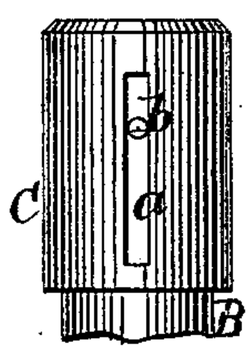
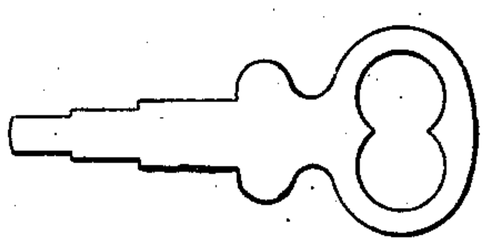


Fig. 7.



Witnesses.

Otto Sinsheimer

Chas. Wahlers

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Jeremiah J. King

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UNITED STATES PATENT OFFICE.

JEREMIAH J. KING, OF NEW YORK N. Y.

IMPROVEMENT IN LOCKING-LATCHES.

Specification forming part of Letters Patent No. **192,515**, dated June 26, 1877; application filed June 14, 1877.

To all whom it may concern:

Be it known that I, JEREMIAH J. KING, of the city, county, and State of New York, have invented a new and useful Improvement in Locks, which invention is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a rear view of my lock when the lock-plate is removed. Fig. 2 is a top view thereof. Fig. 3 is a rear view, showing a transverse section of the cylinders in the plane of the line *x x*, Fig. 4. Fig. 4 is an end view, showing a longitudinal central section of the cylinders. Fig. 5 is an end view of the external adjustable cylinder. Fig. 6 is a side view thereof. Fig. 7 shows the form of key used in connection with my lock.

Similar letters indicate corresponding parts.

My invention relates to that class of latch-locks having an extensible cylinder, which is passed through a door or other object, and which is adapted to doors of different thicknesses. It consists in the combination of a stationary internal cylinder projecting from the lock-case with a non-rotating external cylinder, adapted to move lengthwise on said external cylinder, and having an adjusting-screw or other equivalent device for fastening it in place, and with a partially-rotating tumbler-case arranged on the interior of said external cylinder, so as to move therewith, and having a longitudinal shoulder which engages a segmental arm projecting from the dog of the locking mechanism in such a manner that the tumbler-case is susceptible of a longitudinal movement, together with the external cylinder, while at the same time, when the tumbler-case is rotated, the segmental arm and dog partake of such movement, and thereby the locking mechanism is actuated.

In the drawing, the letter A designates the case of my lock, to which is secured a cylinder, B, in such a manner as to project therefrom at right angles, the case being provided with an opening equal to the internal diameter of the cylinder at the place where it is located. On the cylinder B is fitted and placed a secondary cylinder, C, through the side of which passes an adjusting-screw, D, so that when the external cylinder C is moved to the desired position it can be held by tightening the screw D. In order to prevent the external cylinder C from rotating, it is provided with a slot, *a*, through which passes a guide-pin, *b*, (see Fig. 6,) but this purpose can also be accomplished by arranging the set-screw D in a slot.

In the interior of the external cylinder C is arranged a case, E, which carries a series of tumblers, F, this case E having a segmental form, and the tumblers F being made to project therefrom and out through the external cylinder C, which is provided with a slot, G, for a longitudinal movement of the tumblers, and with recesses *c* for a lateral or rotating movement thereof. When the tumblers F are rotated the case E partakes of their movement. In the example shown the tumblers F are constructed and arranged to be actuated by a key of the general form shown in Fig. 7, and which has a corresponding form on both of its edges.

The tumbler-case E is connected to the external cylinder C by means of a pin, *e*, (see Fig. 4,) projecting from the cylinder, and which catches in a groove formed in part of the circumference of the case, so that the case is permitted to rotate, and at the same time moves with the external cylinder in the direction of its length.

The tumbler-case E projects into the inner cylinder B, and it is provided with a shoulder, *d*, (best seen in Fig. 3,) which extends the entire length thereof, and is made to catch behind one of the longitudinal edges of an arm, H, formed on or secured to a dog, I, (see Fig. 1,) which is arranged to actuate the latch J of the lock. The arm H is rigid, and has a segmental form in cross-section, so as to fit between the inner cylinder B and the tumbler-case E, where it is located.

It will be noticed that when the tumbler-case E is rotated the segmental arm H is caused to partake of its movement through the shoulder *d*, and thus the dog I is swung on its axis, and the latch J is drawn back. As before stated, the tumbler-case E partakes of the movement of the external cylinder C, and when this cylinder is moved backward or forward, as the case may be, the shoulder *d* of the case slides along the edge of the segmental arm H, so that said case is adapted to rotate

the arm in any position of the external cylinder.

The important advantage of my lock is the simplicity of its construction, and the consequent low cost at which it can be manufactured.

It is obvious that my invention may be applied to a bolt-lock as well as to latches without departure from my invention.

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

The combination, in a lock, of an internal stationary cylinder projecting from the lock-case, with a non-rotating external cylinder, adapted to move lengthwise on said internal cylinder, and having an adjusting-screw or other equivalent device for fastening it in place, and with a partially-rotating tumbler-case arranged on the interior of said external cylinder, so as to move therewith, and having a longitudinal shoulder which engages with a segmental arm projecting from the dog of the locking mechanism, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of January, 1877.

JEREMIAH J. KING.

Witnesses:
E. F. KASTENHUBER,
CHAS. WAHLERS.