

(Model.)

G. W. NOCK.
Latch.

No. 243,077.

Patented June 21, 1881.

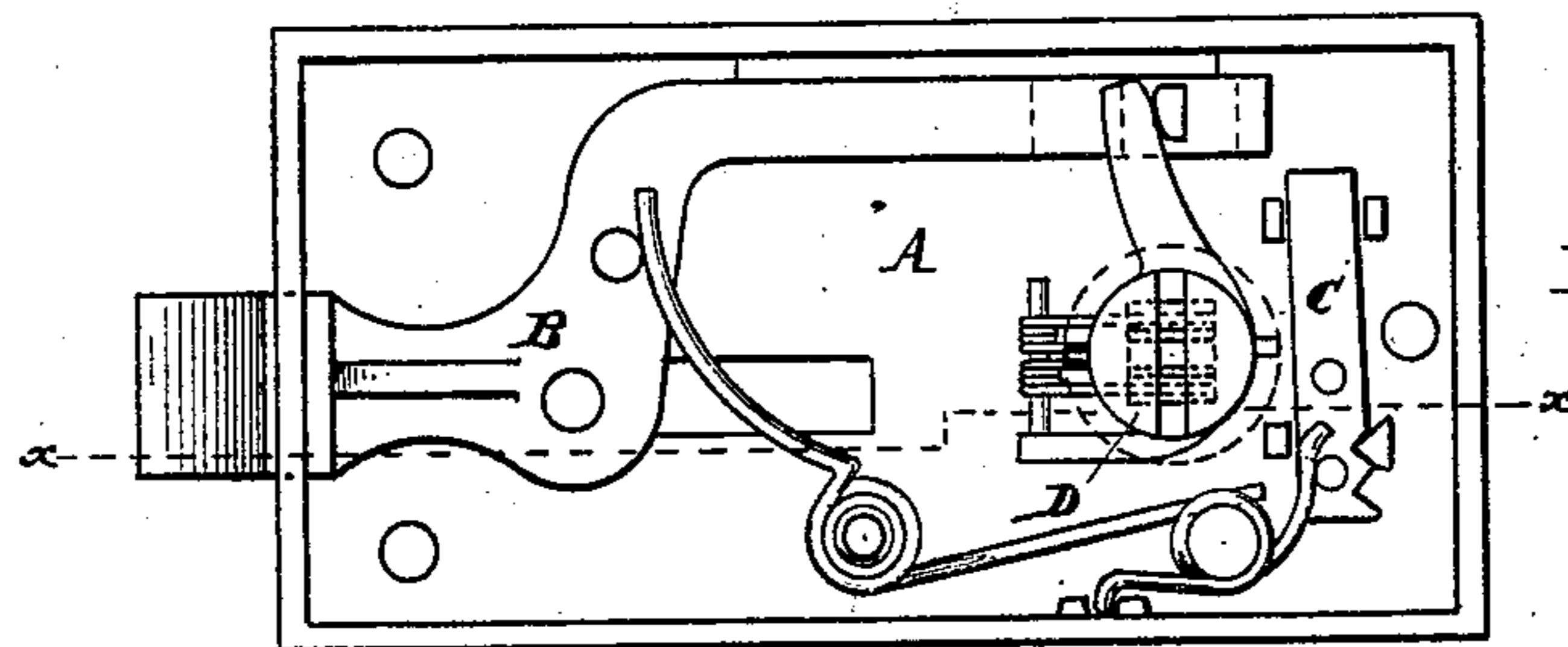


Fig. 1

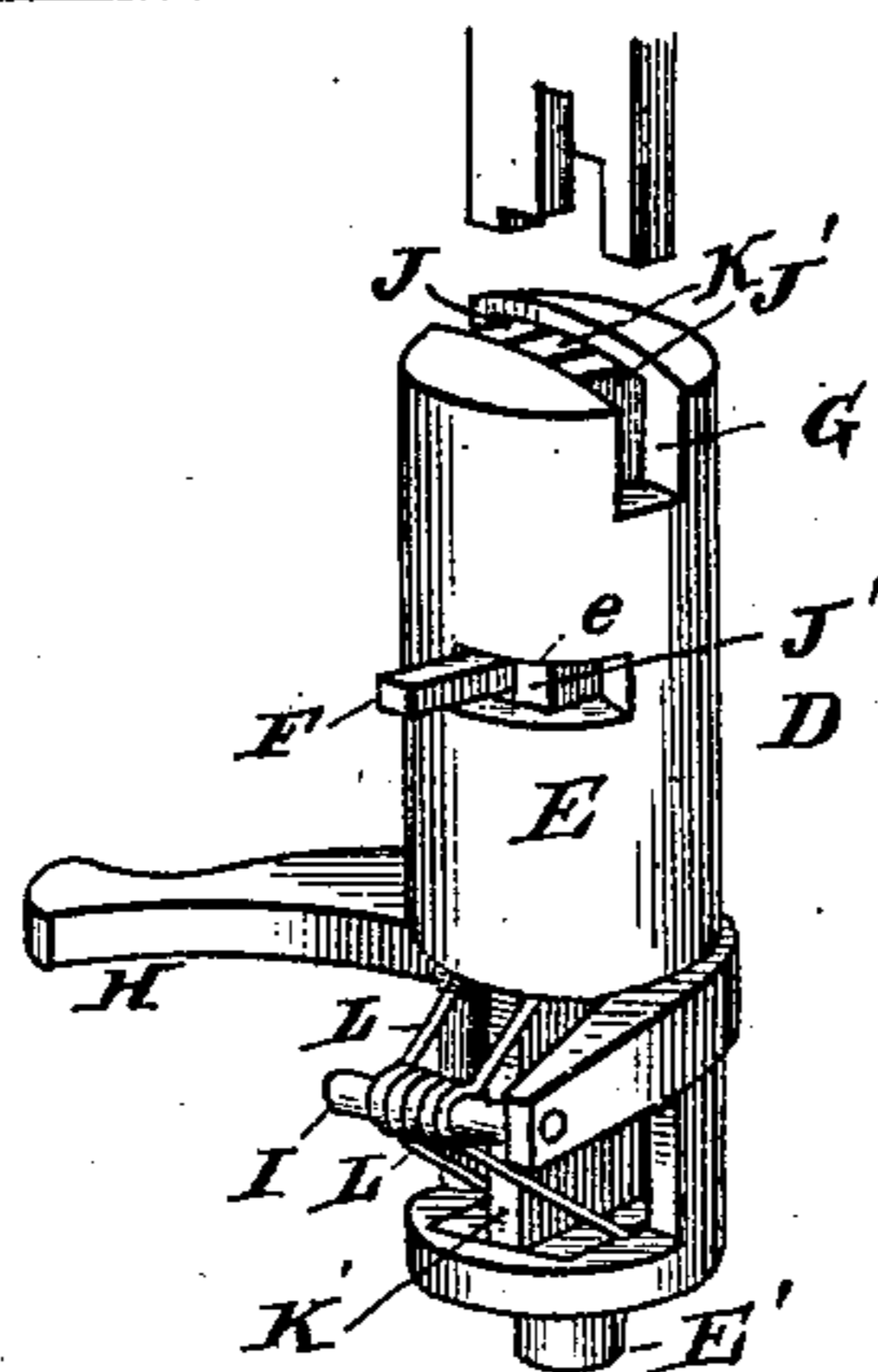


Fig. 3

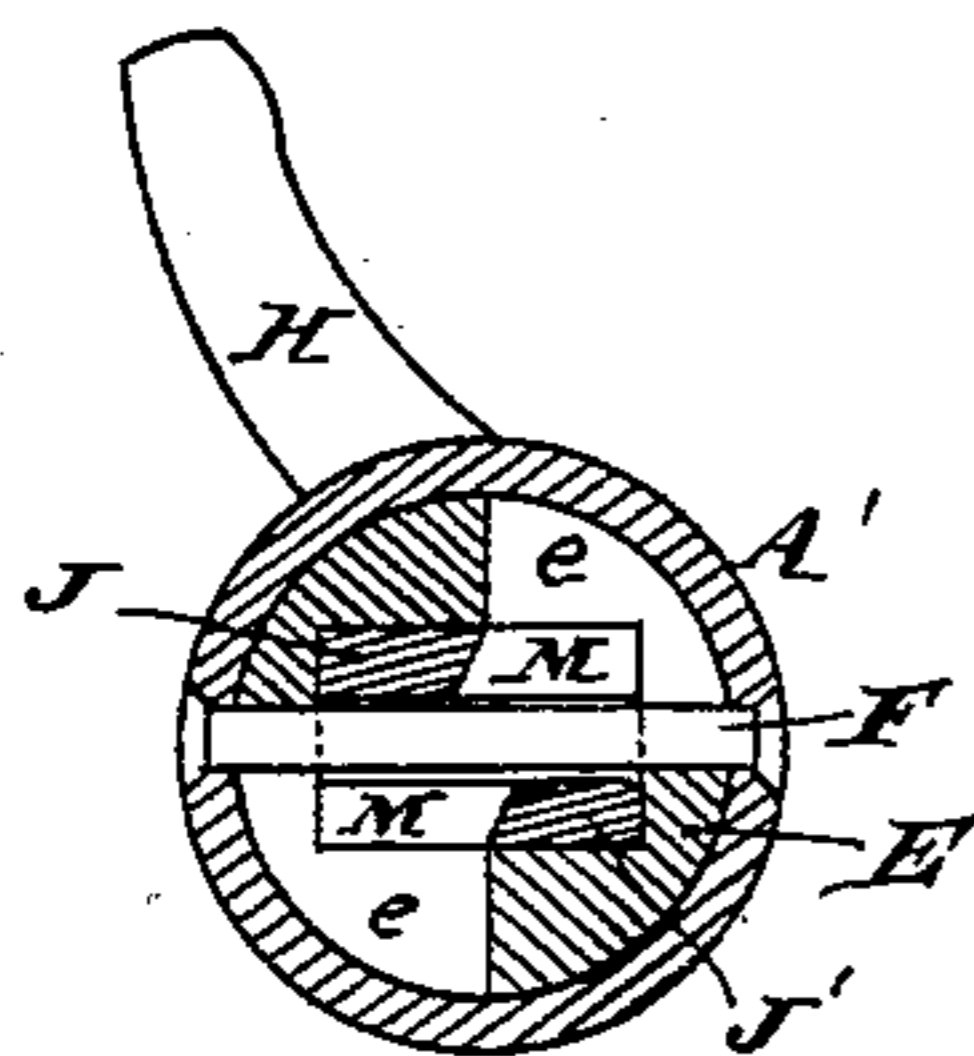


Fig. 5

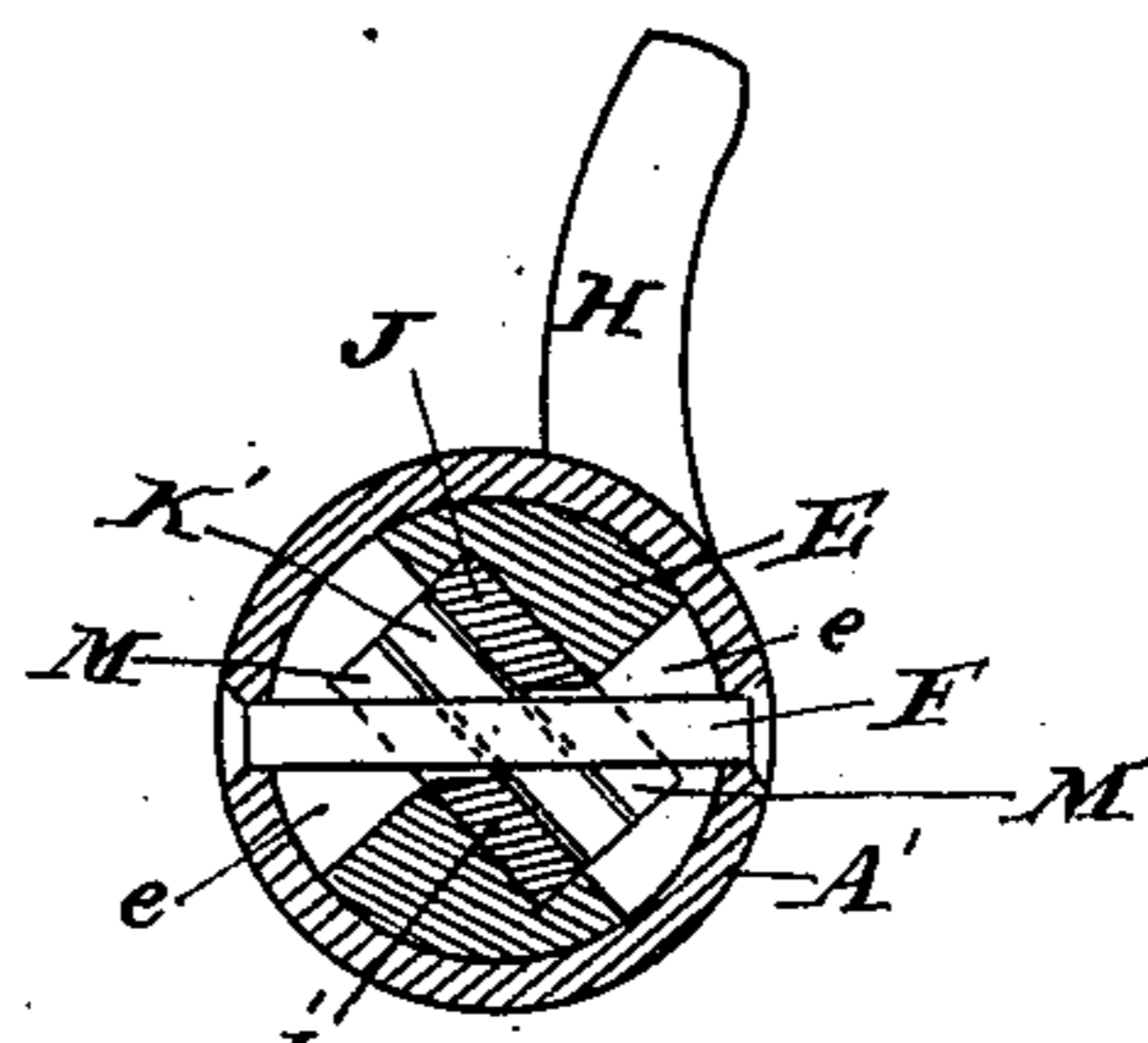


Fig. 6

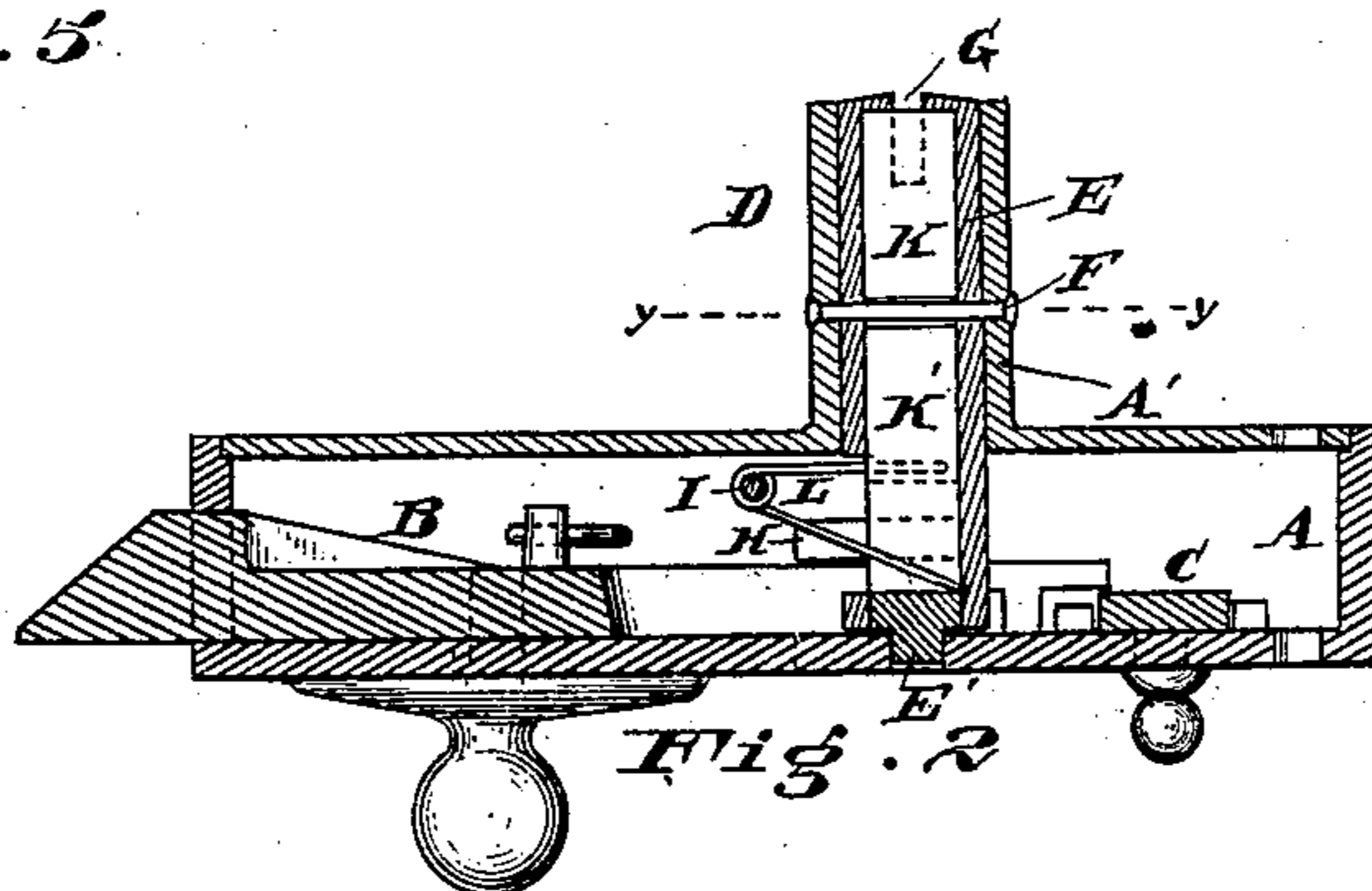


Fig. 2

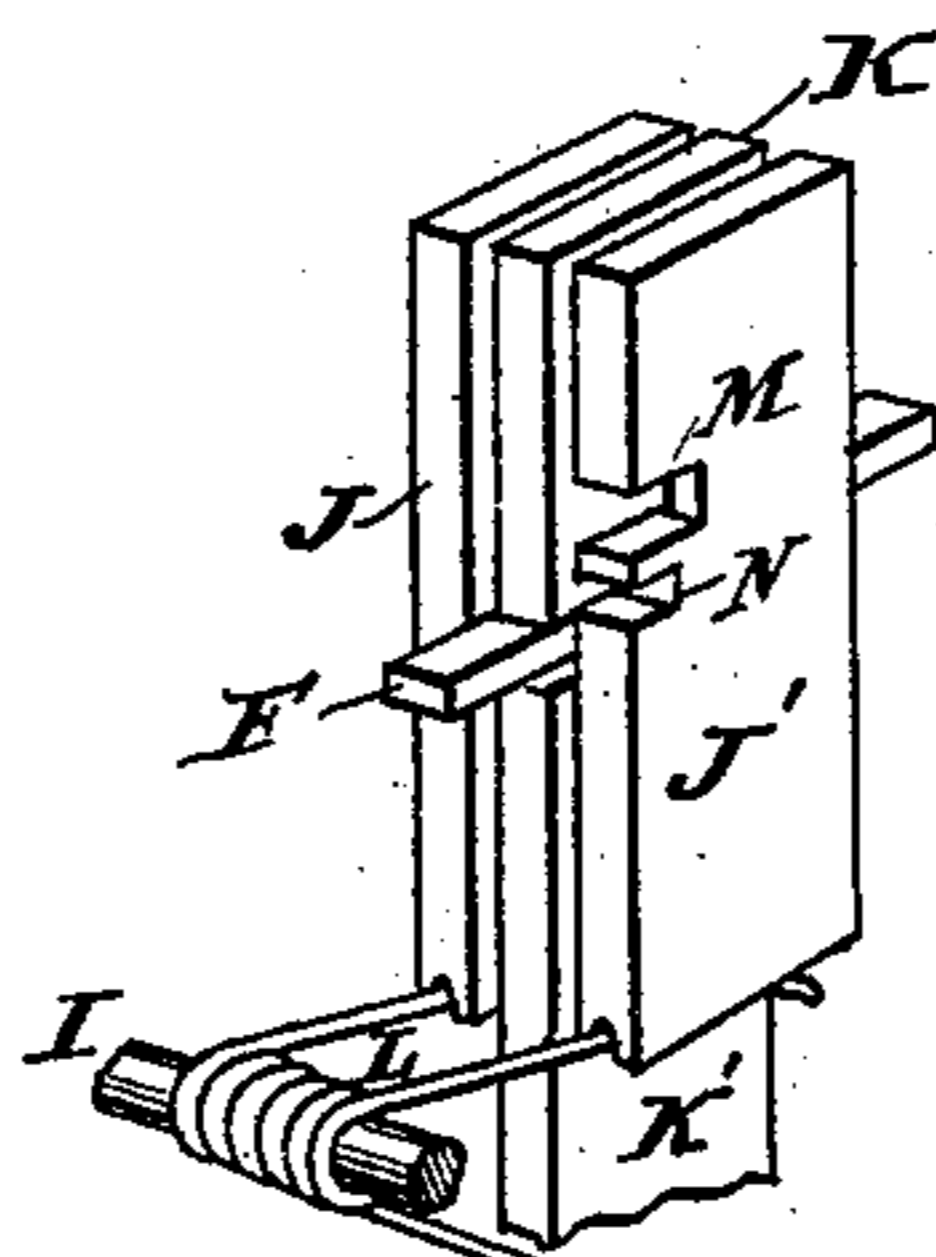


Fig. 4

attests

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LATCH.

SPECIFICATION forming part of Letters Patent No. 243,077, dated June 21, 1881.

Application filed April 2, 1881. (Model.)

To all whom it may concern:

Be it known that I, GEORGE W. NOCK, of the city and county of Philadelphia, and State of Pennsylvania, have invented an Improve-
5 ment in Locks, of which the following is a specification.

My invention relates to locks for doors, &c.; and it consists in the construction and arrange-
10 ment of two or more notched slides and their auxiliary mechanism, in combination with a cylinder to contain said slides, provided with two slots diametrically opposite a casing to contain
said cylinder, and adapted to allow of its rotation or oscillation, and a pin secured to the
15 casing and passing through the slots in the cylinder carrying the slides, the notches of which work with pin in withdrawing the bolt, and other mechanism to act upon and manip-
20 ulate the bolt through the agency of the slide-cylinder, all of which is more fully set forth in the following specification, and shown in the accompanying drawings.

The object of my invention is to simplify the lock, rendering it less expensive to produce
25 and more compact and secure in its action.

In the drawings, Figure 1 is a plan view of my improved lock with the top plate and casing removed. Fig. 2 is a section of same on line
30 *x*, showing top plate and casing in place. Fig. 3 is a perspective view of the cylinder with its slides as removed from the lock. Fig. 4 is a perspective view of the slides and guide-plate and their springs. Figs. 5 and 6 are two cross-
35 sections of the lock on line *y y*, and show the two positions of the cylinder and its slides in relation to the pin and casing when the lock is shut and when open.

A is the body of the lock, B is the latch-bolt, and C is the supplemental locking-bolt to se-
40 cure the bolt in or out.

A' is the cylindrical casing, and is secured to or forms part of the top plate of the lock. Working in this casing A' is the lock proper,
D, which consists of the cylinder E, open at
45 the bottom, and provided with a working pin or extension, E', which fits into a hole in the lock-case, and provided at the top with a slot, G, for the insertion of the key. (Shown in
Fig. 3.)

50 Secured to the casing A', and passing through

slots *e* in the cylinder, is a pin, F; and situated within the cylinder, above and below said pin, are guide-plates K and K'.

Located on either side of the guide-plate, and separated by the same, are the slide-plates J J',
55 provided with notches M and N. The latter notches—viz., N—are blinds, and prevent the picking of the lock without considerable skill, time, and trouble. These plates J J' are pressed
60 up against the top of the cylinder, which is partly closed, by two springs, L, supported and carried by pin I, forming part of the cylinder E. Also, secured to or forming part of the cyl-
inder E is the arm or projection H, which works
65 against a pin on the latch-bolt B to draw it back against the pressure of a spring.

The operation is as follows: Insert the key into the slot G. The different steps of said key press down the slide-plates J J' to the re-
quired depth, compressing the springs L until
70 the notches M in said plates register with the pin F. This is governed by so arranging the steps in the key that the key will be brought to rest by the bottom of the slot G just as the
75 notches and pin register. Then the key is turned, which action turns the cylinder from the position shown in Fig. 5 to position shown in Fig. 6, in which the casing A' and pin F are
shown to be stationary, and the cylinder and its accessories D alone rotate. This is effected
80 by the separation between the two guide-plates K K' and the notches M in slide-plates J J' being on a line with the pin F and the slots *e*, and as the cylinder and its plates rotate, the pin F enters the notches, as shown in Fig. 6.
85 The rotation of the cylinder draws back the latch-bolt B by means of the arm H. In locking it the pressure is taken off the key, and the spring of the bolt causes it to rotate, until the notches are free from pin F, when the
90 springs L force them up and the key is removed; and when in this position the slides bear the relation to the pin as shown in Figs. 3 and 4, in which the solid part of the slides J J' press against the pin and will not allow the
95 cylinder to be rotated.

By simply changing the slides J J' the combination of the lock can be altered without much expense, as the slides are changeable
from one lock to another.

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

1. In a lock, the combination of casing A', secured to the body of the lock, cylinder E, adapted to rotate therein, provided with slots e and G, pin F, slides J J', provided with notches M, and springs L, or their equivalent, as and for the purpose specified.

2. In a lock, the combination of casing A', cylinder E, provided with slots e and G, arm H, and pin I, or its equivalent, bolt B, pin F, slides J J', provided with notches M, and springs L, or their equivalent, as and for the purpose specified.

3. In a lock, the casing A', secured to the body of the lock, in combination with cylinder E, provided with the slots e, and pin F, secured

to the casing, and allowing the cylinder to be rotated or oscillated, but not reciprocated, as shown and described.

4. In a lock, the combination of sliding plates J J', provided with notches M, guide-plates K K', and pin F, substantially as and for the purpose specified.

5. In a lock, the combination of sliding plates J J', provided with notches M, guide-plates K K', pin F, cylinder E, casing A', and springs L, substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

GEORGE W. NOCK.

Witnesses:

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