

(Model.)

R. E. WOODRICH & C. LANGBEIN.

LATCH.

No. 326,258.

Patented Sept. 15, 1885.

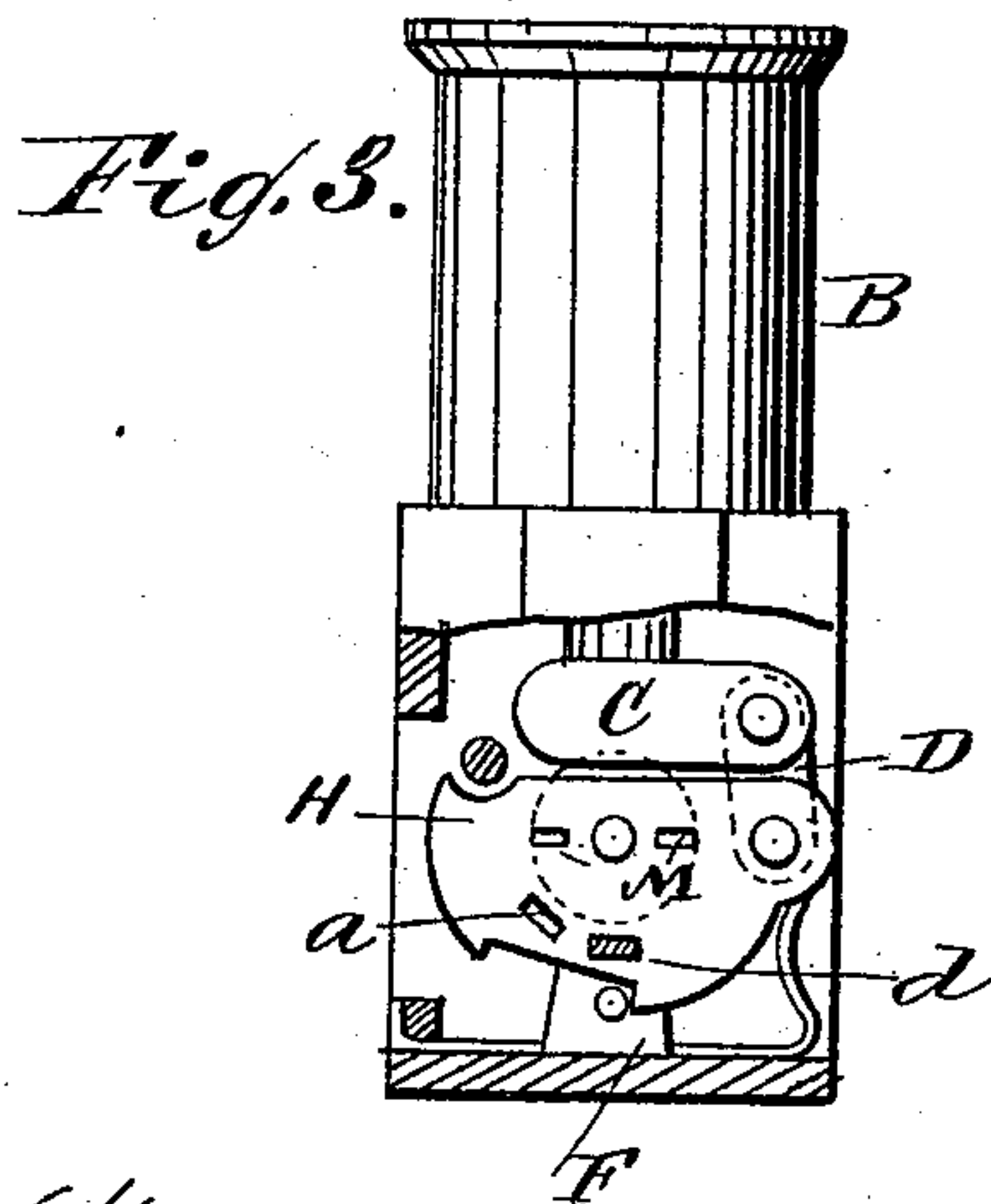
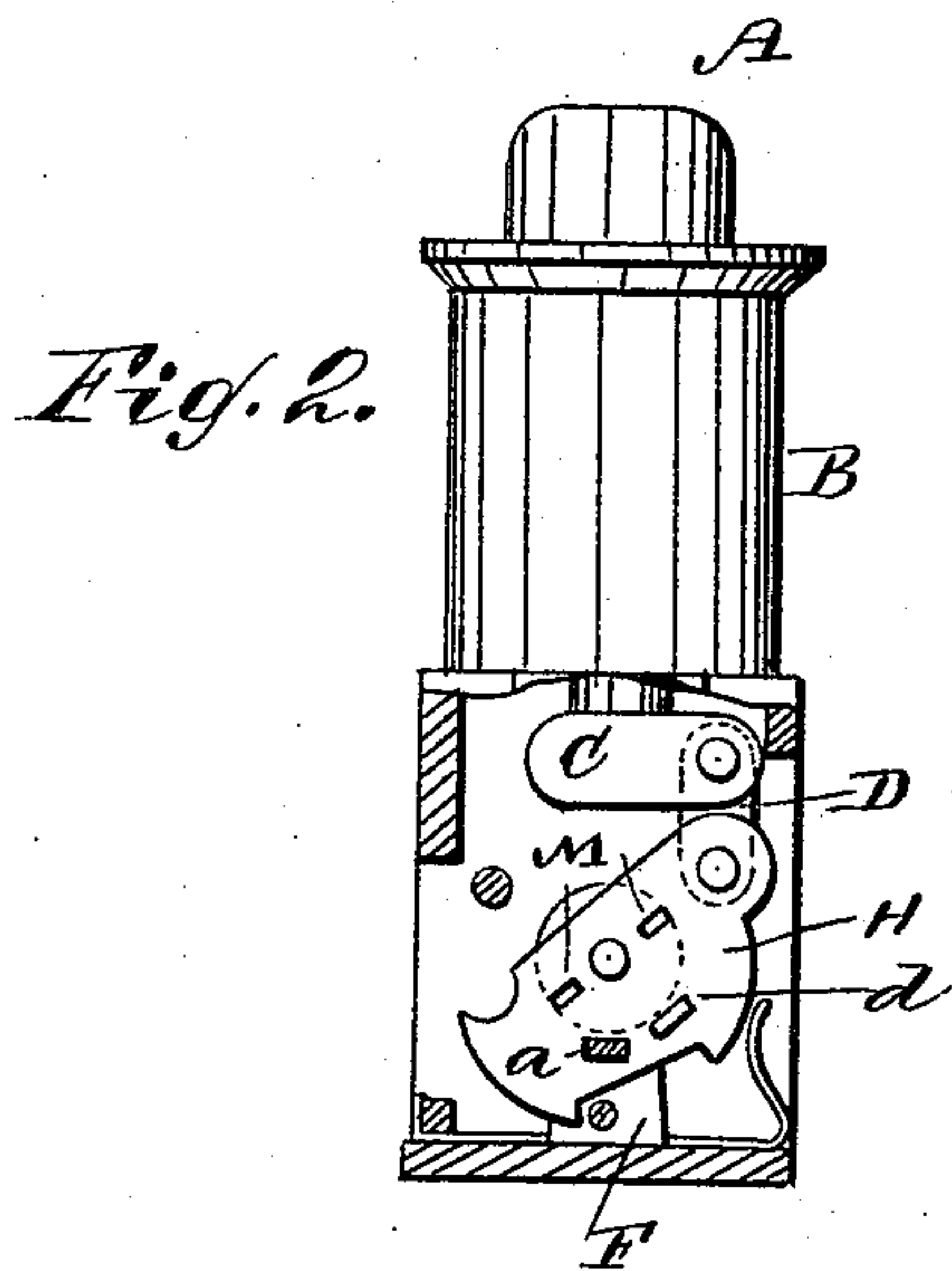
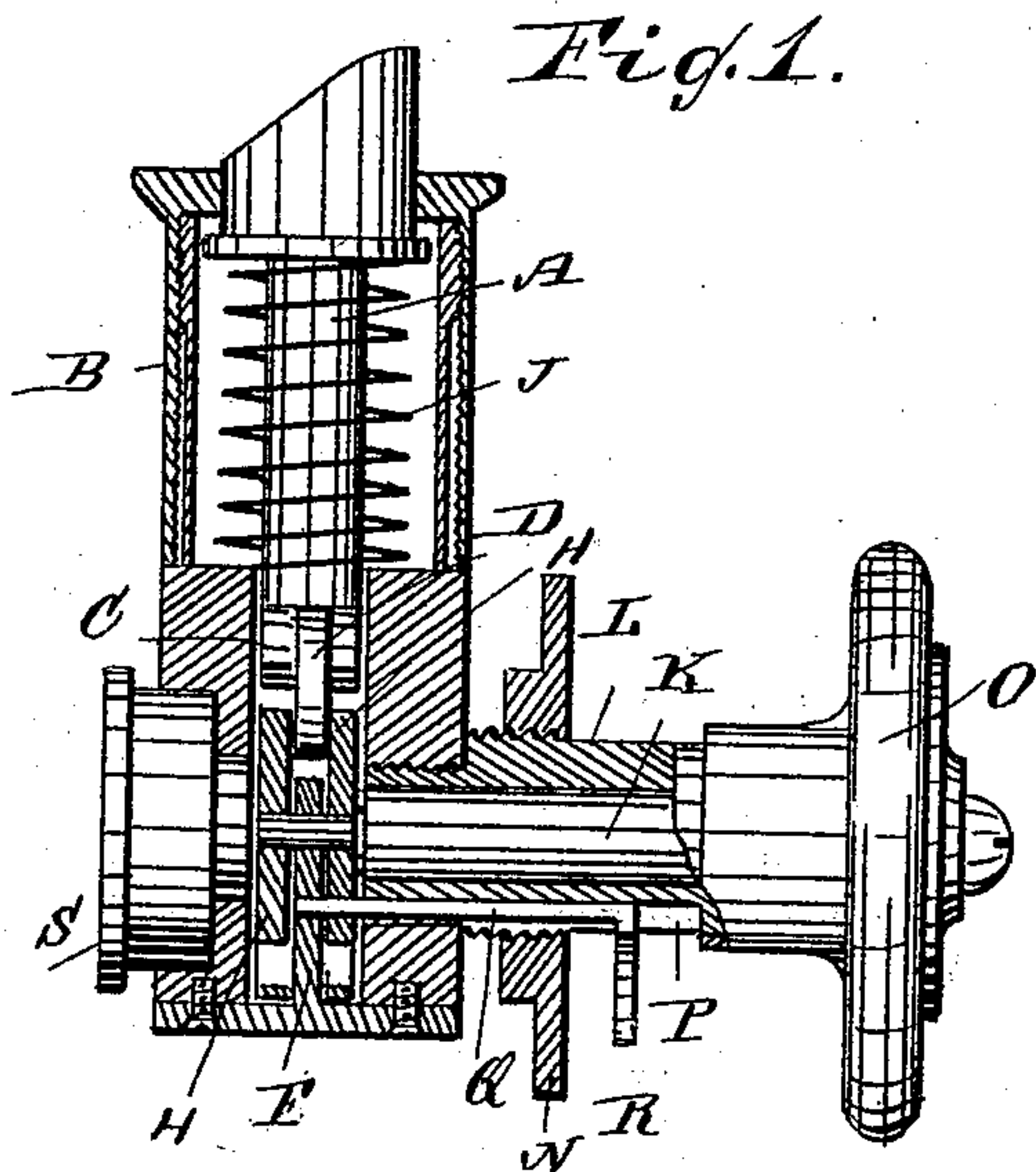
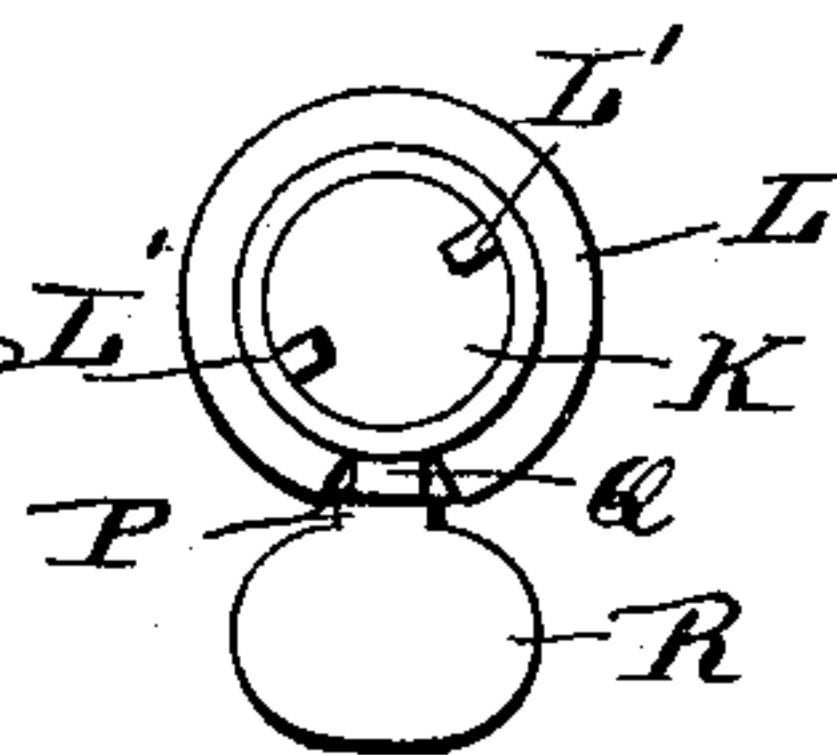


Fig. 4.

WITNESSES:

Geo. G. Foster
C. Sedgwick



INVENTOR:

R. E. Woodrich
C. Langbein
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

RUDOLF E. WOODRICH, OF NEW YORK, AND CHARLES LANGBEIN, OF
BROOKLYN, N. Y.

LATCH.

SPECIFICATION forming part of Letters Patent No. 326,258, dated September 15, 1885.

Application filed November 21, 1884. (Model.)

To all whom it may concern:

Be it known that we, RUDOLF E. WOODRICH, of the city, county, and State of New York, and CHARLES LANGBEIN, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Lock, of which the following is a full, clear, and exact description.

The object of our invention is to provide a new and improved lock which is constructed with a sliding bolt acted upon by a knob-shaft, and also adapted to be locked in place by means of a latch.

The invention consists in the combination, with a lock-casing, of a sliding bolt in the same, a knob-shaft connected with the bolt, and a sliding latch in a sleeve surrounding the knob-shaft.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional view of our improved lock. Fig. 2 is a side view of the same, parts being broken out and the bolt being thrown. Fig. 3 is a like view, the bolt being withdrawn. Fig. 4 is an inner end view of the knob-shaft.

The bolt A is held to slide longitudinally in a tubular casing, B, the bolt projecting from one end of the casing, and having its end beveled or provided with a beveled head.

On the inner end of the bolt A a cross-piece, C, is held, and to the same a link, D, is pivoted, which is also pivoted to a plate, H, pivoted on a partition, F, projecting from the bottom of the casing B into a groove or slit in the bottom of the plate, whereby by turning the said plate H on its pivot the bolt A is withdrawn.

A spring, J, coiled around the bolt A, presses the same outward.

The knob-shaft K is arranged to revolve but not to slide in a sleeve, L, screwed into one side of the casing B at the lower end of the same, and the said knob-shaft is provided at its inner end with two prongs, L', which pass into apertures M in one side of the plate H, whereby the plate H can be turned by means of the knob-shaft K.

An escutcheon-ring, N, is screwed on the

sleeve L, and a knob, O, is secured on the outer end of the knob-shaft K.

A longitudinal groove, P, is formed in the outer surface of the sleeve L, and in the same a slide, Q, is arranged, which is provided with a downwardly or outwardly projecting handle-piece, R.

The plate H is provided with two apertures, *a* *d*, for receiving the end of the slide Q, and an aperture, *h*, is provided in the partition F for receiving the end of the slide.

On that side of the lock-casing opposite the one on which the sleeve L is secured a key-guide, S, is arranged, which is adapted to receive and guide a key, the end of which is to be engaged with the plate H to turn the same.

The operation is as follows: To withdraw the bolt, the knob-shaft is turned to swing that end connected with the bolt toward the rear end of the lock-casing. As soon as the knob-shaft is released the spring J throws the bolt outward. To lock the bolt in place, the slide Q is pushed inward so that its inner end passes through the aperture *a* in the plate H and the aperture *h* in the partition F. The door cannot be opened, as the bolt is locked in place securely.

When the bolt is to be locked in place so that it cannot catch, it is first pulled inward and the slide Q pushed inward to pass through the aperture *d* in the plate H and aperture *h* in the partition F. The lock thus serves as an ordinary knob-lock, a key-lock, a night-latch, and a safety-lock. The key-guide is held flush with the outside of the door, and the knob is on the inside.

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

1. In a lock, the combination, with the casing, of a sliding bolt having a cross-piece, a pivoted plate in the casing, and a link connecting the pivoted plate with the cross-piece of the bolt, substantially as herein shown and described.

2. In a lock, the combination, with a casing, of a sliding bolt, a knob-shaft, a pivoted plate connected with the knob-shaft and the bolt, a sleeve surrounding the knob-shaft, and a sliding latch in the sleeve for locking the said piv-

oted plate in place, substantially as herein shown and described.

3. In a lock, the combination, with a casing, of the sliding bolt A, cross-piece C, and link
5 D, the pivoted plate H, having apertures *a d*, and the latch Q, substantially as herein shown and described.

4. The combination, with the casing B, of the bolt A, the partition F, having an aper-

ture, *h*, cross-piece C, the link D, the pivoted 10 plate H, having apertures *a d*, the sleeve L, the knob-shaft K, and the sliding latch Q, substantially as herein shown and described.

RUDOLF E. WOODRICH.
CHARLES LANGBEIN.

Witnesses:

OSCAR F. GUNZ,
C. SEDGWICK.