(Model.)

R. E. WOODRICH & C. LANGBEIN.

LOCK.

No. 294,560. Patented Mar. 4, 1884.

Fig. 1.

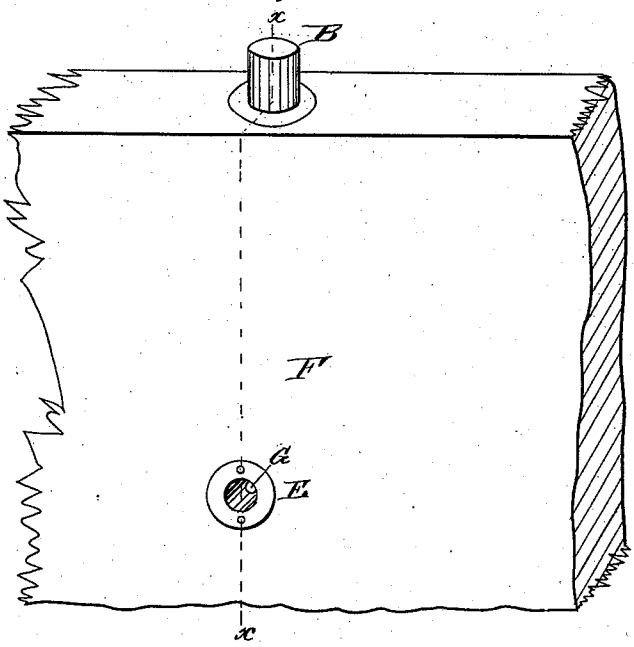


Fig. 2.

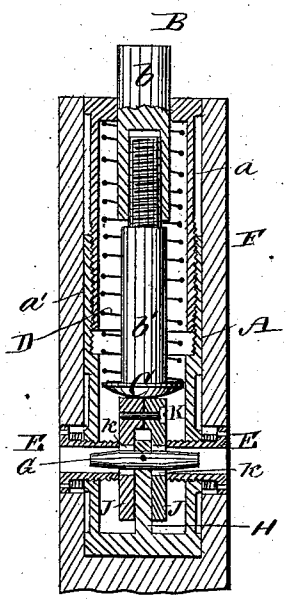


Fig. 3.

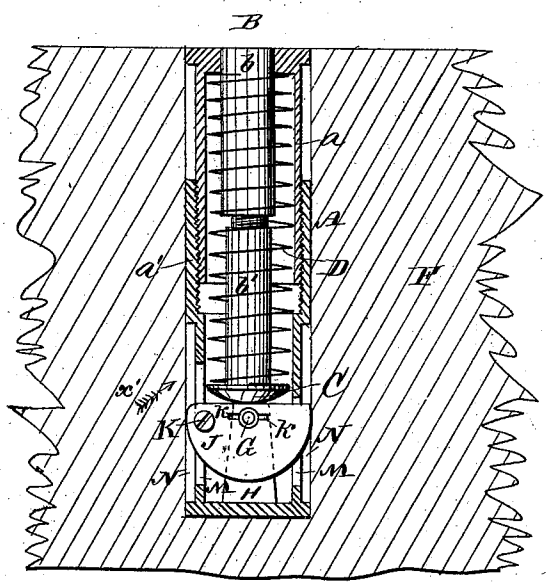
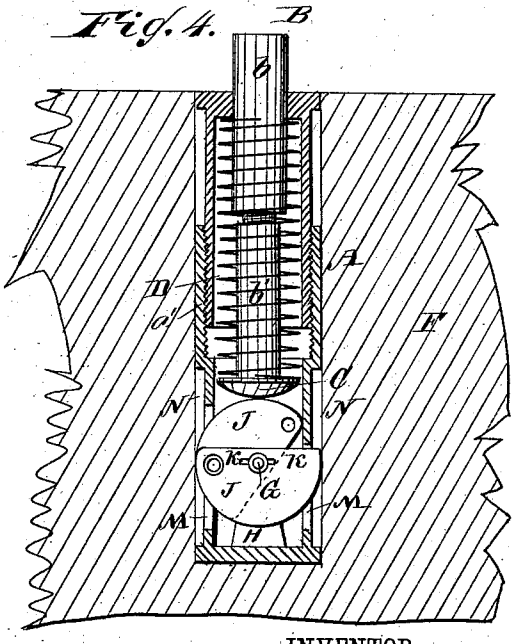


Fig. 4.



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UNITED STATES PATENT OFFICE.

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

LOCK.

SPECIFICATION forming part of Letters Patent No. 294,560, dated March 4, 1884.

Application filed April 25, 1883. (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 can be secured and held in place without the use of screws, which can be adjusted at different lengths, and which lock can be adjusted to operate from one side of the door only.

The invention consists in a lock constructed with an extensible casing and bolt, which bolt rests on independent pivoted cam-plates adjusted to be turned by a key inserted through escutcheons screwed into screw-threaded aperture in the casing, thereby holding the casing in place in the drawer or door.

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

Figure 1 is a perspective view of a part of a drawer provided with our improved lock. Fig. 2 is a cross-sectional elevation of our improved lock on the line *x x*, Fig. 1. Fig. 3 is a longitudinal sectional elevation of the same, showing the bolt within the casing. Fig. 4 is a longitudinal sectional elevation of the same, showing the bolt projecting from the casing and the cams detached from each other.

The lock is constructed with a cylindrical casing, A, closed at the lower end, and provided at the upper end with an aperture, through which the sliding bolt B can pass. The casing is constructed of two tubular sections, *a a'*, of which the former is screwed into the latter; and the bolt B is composed of two sections, *b b'*, of which the latter is screwed into the lower end of the former. The lower end of the bolt-section *b'* is provided with a convex or like head, C, between which and the end of the casing A a spiral spring, D, is held, which surrounds the bolt and draws the same in the casing. The casing-section *a'* is provided near its lower end with two diametrically-opposite apertures, into which screw-threaded escutcheons E are screwed, which are passed through apertures in the opposite side of the door or drawer F. The escutcheons are provided at the outer ends with flanges provided with apertures or slots for receiving the ends of a suitable key for screwing the escutcheons into the threaded apertures in the casing. A pintle, G, held transversely in the upper end of a standard, H, projecting from the bottom of the casing-section *a'*, projects into the escutcheons. On each side of the standard H a cam-plate, J, is loosely mounted on the pintle G, and at one end the two cam-plates are held together by a screw, K. The cam-plates are slightly larger than a semicircle. At the central aperture each cam-plate is provided with apertures or recesses *k*, of any suitable size or shape for receiving the end of a key. The casing-section *a'* is provided with vertical slots M and with vertical recesses N, through which the ends of the cam-plates can pass. The greatest diameter of the cam-plates must not be greater than the outer diameter of the casing-section *a'*.

The operation is as follows: A hole is made in the edge of the drawer or door F, and from each side a hole is made leading into the lower part of the above-mentioned hole. The tubular casing A is inserted into the edge-hole and the escutcheons E are screwed through the side holes into the screw-threaded holes in the casing. Thereby the lock-casing will be held in place without the use of screws, nails, or other analogous devices. The lock can be fastened in the drawer or door and removed from the same very easily. It frequently happens that it is desirable to have escutcheons at a certain point of the door or drawer—that is, a greater or less distance from the edge of the drawer or door—and this can be done in using our lock, as the casing A and the bolt B can be lengthened or shortened very easily accordingly, as they both consist of two sections, which can be screwed into each other more or less until the desired length is obtained. If the door or drawer is to be locked, the key is introduced into one of the escutcheons, and by means of the said key the cam-plates are turned in the direction of the arrow *x'*, Fig. 3, whereby the bolt will be raised—that is, pushed out—as shown in Fig. 4. The cam-plates will then

be inclined, and cannot be swung back in the reverse direction of the arrow *a'* by exerting a pressure on the bolt. If the bolt is to be withdrawn, the cam-plates must be turned in the reverse direction of the arrow *a'* by means of the key. The spring D will then draw the bolt into the casing. If the screw K is removed, the two cam-plates will be independent of each other, and only one can be turned by means of the key. If the bolt is thrown from one side of the door, it cannot be withdrawn from the outer side. The lock can thus be adjusted very easily for use as a safety-lock—for instance, for doors which are to be locked by the occupant of a room from the inside only.

Any suitable kind of a key can be used with our improved lock.

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

1. The combination, in a lock-case consisting of two parts—a main case and an extension cylindrical in the direction of the bolt—of the main case having a hole through it crosswise to receive the key, and provided with a screw-thread upon or within its outer end, and the said extension having a screw-thread adapted to engage the said screw-thread of the main case, substantially as described, whereby the whole lock may be inserted into a hole bored into the edge of a door, and the case may be extended or contracted between the key-hole and the edge of the door to adjust a lock-case to different situations.

2. The combination, with a lock-case longitudinally extensible between its key-hole and its outer end, of a bolt consisting of two cylindrical parts provided with telescoping screw-threads, whereby the length of the bolt may be adjusted to the length of the lock-case, as described.

3. In a lock, the combination of the case A, the bolt B, the standard H on the bottom of the casing, the pintle G in the standard, and the cam-plates J J, mounted independently and loosely on the said pintle, with the screw K, adapted to unite the two cam-plates, as described, whereby the lock is adapted to be operated at one side independent of the other or to be operated from both sides, as set forth.

4. The combination, with a tubular lock-case, of a bolt having a head at its lower end, a spring forcing the bolt downward, and independently-mounted cam-plates adapted to be screwed together, so as to be both worked from either side, or disconnected, so that each may be locked and unlocked only from its own side, as described.

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