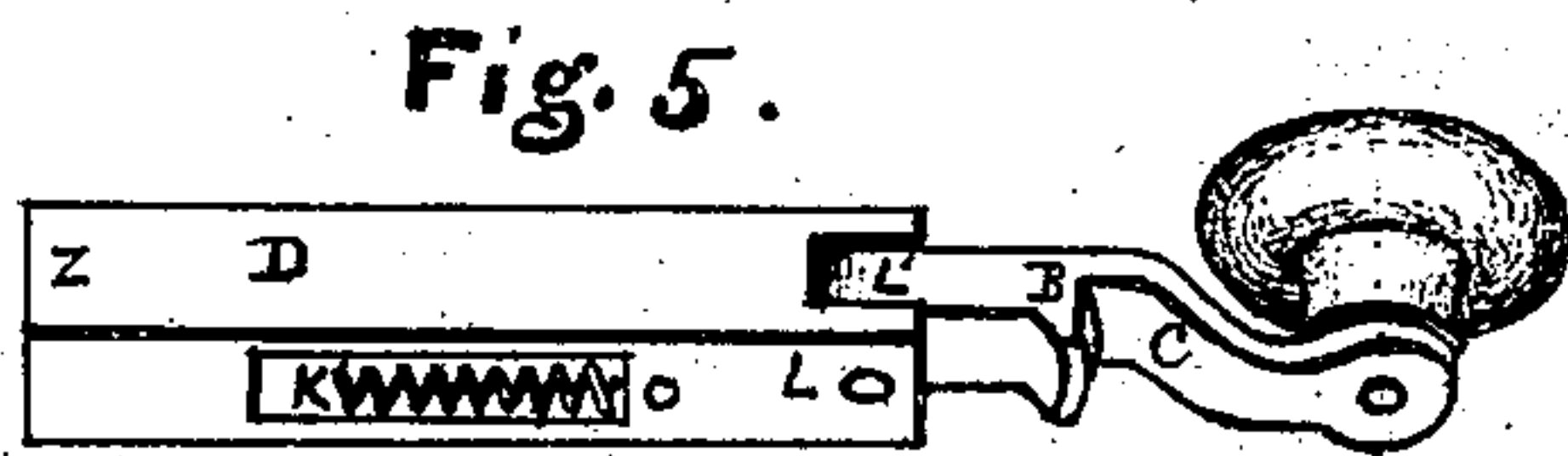
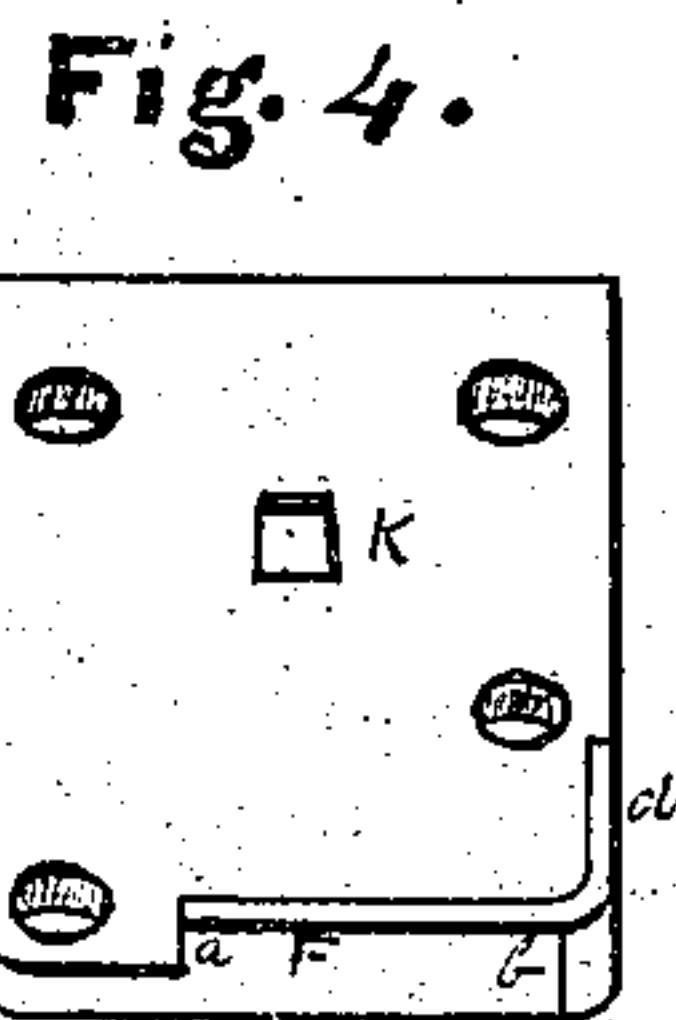
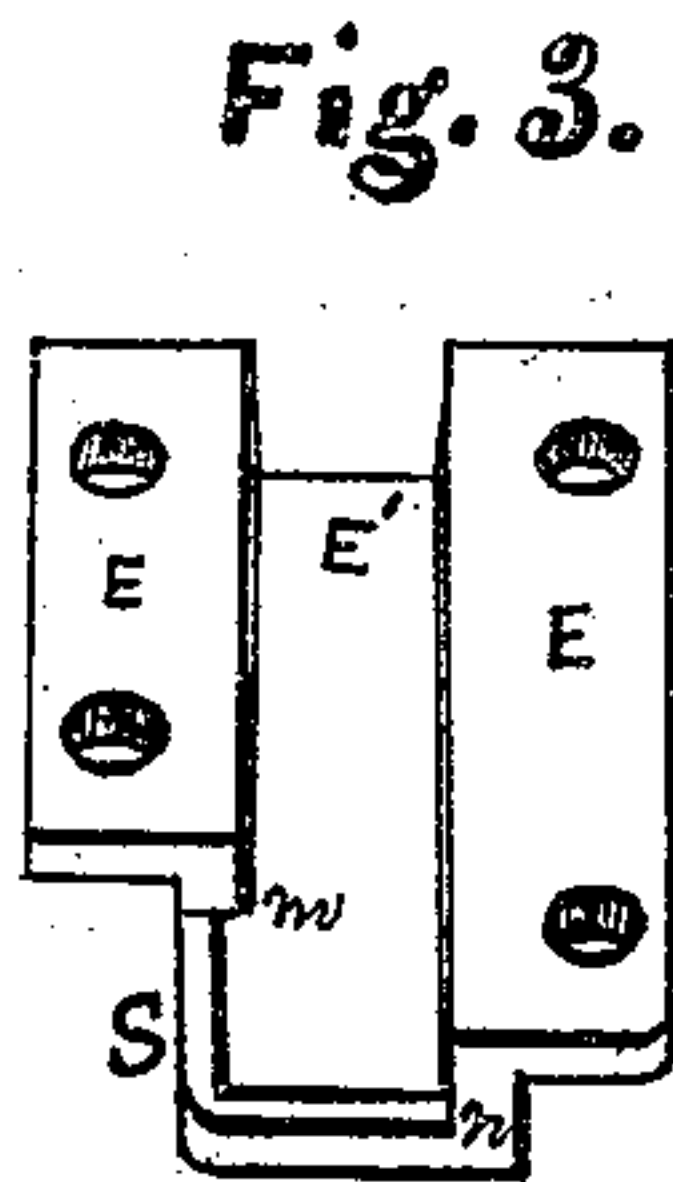
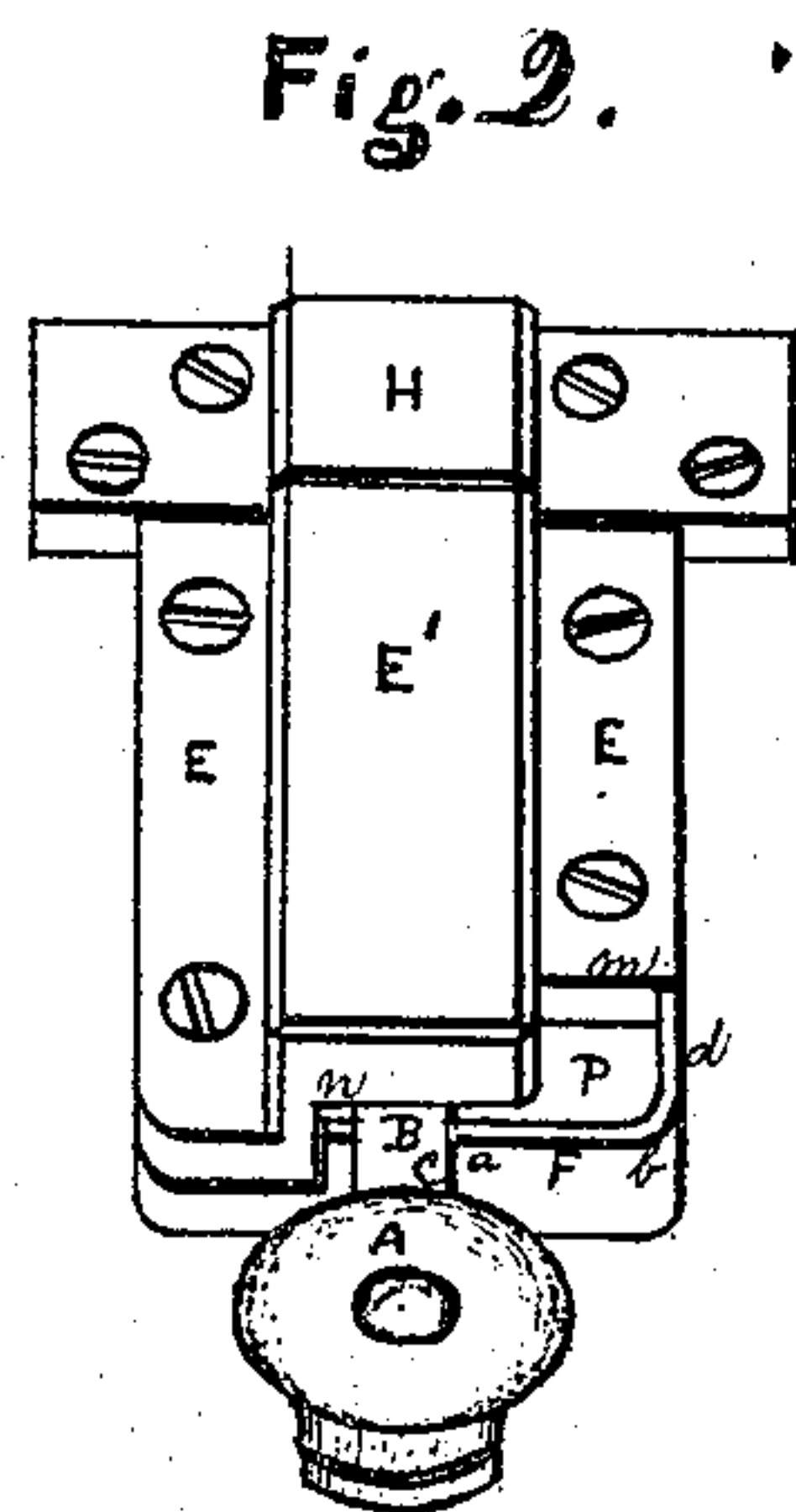
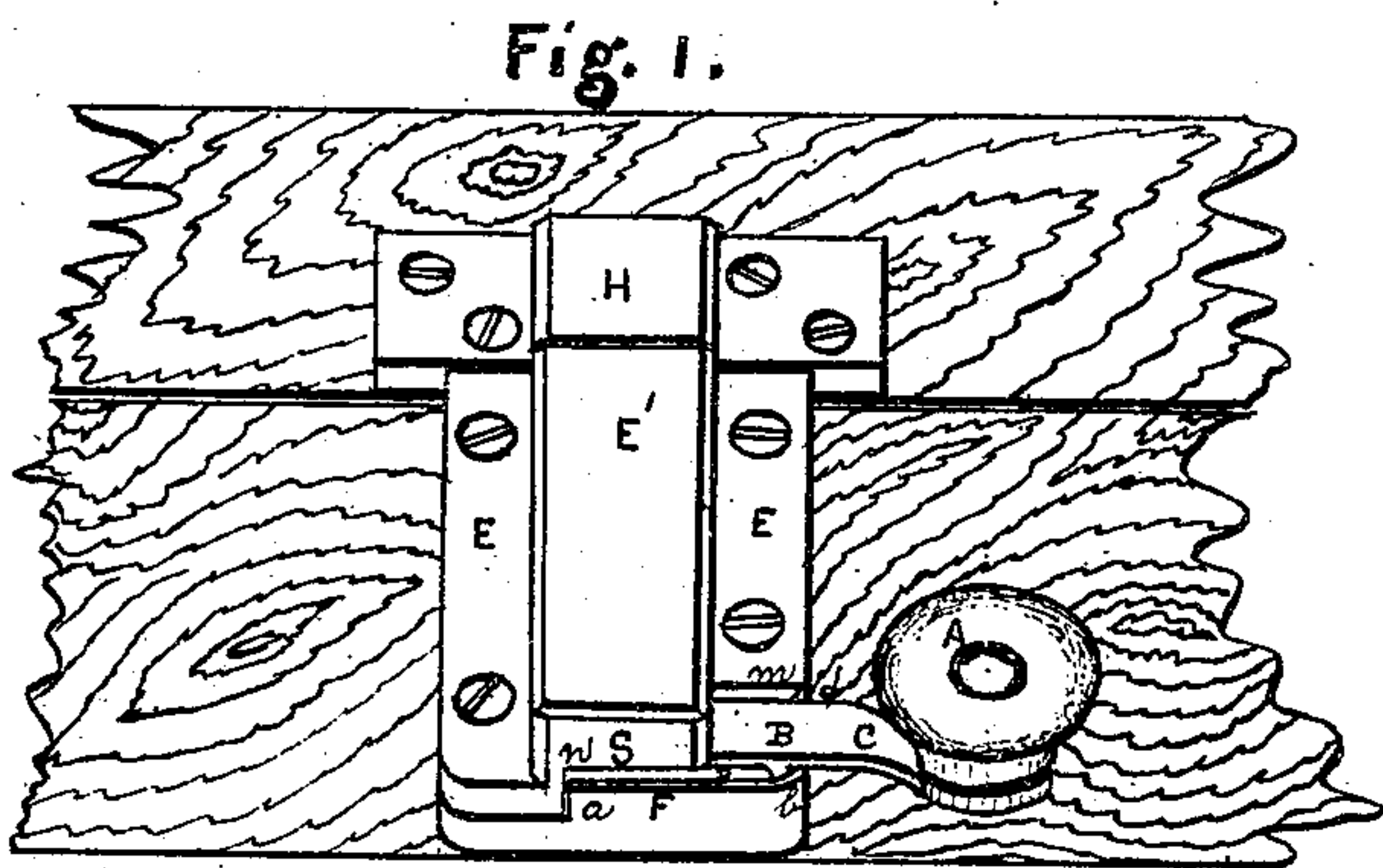


A. Cooper,
Window Button.
No. 102,227. Patented Apr. 26. 1870.



Witnesses.
John Maglanczlin.
Theophilus Weaver.

Inventor.
Albert Cooper

United States Patent Office.

ALBERT COOPER, OF HARRISBURG, PENNSYLVANIA.

Letters Patent No. 102,227, dated April 26, 1870.

IMPROVEMENT IN SASH-LOCKS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, ALBERT COOPER, of city of Harrisburg, county of Dauphin and State of Pennsylvania, have invented a new and improved Sash-Lock; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, in which all the views are perspectives.

Figure 1 is a view of the lock, unlocked.

Figure 2 is a view of the same locked.

Figure 3 is a view of the cap-plate inverted.

Figure 4 is a view of the base-plate.

Figure 5 is a view of the bolt and lever combined.

The nature of this invention consists in combining an operating lever, pivoted at its end to the bolt, and furnished with a lug, with a case provided with an inclined rim or projection, so that, when the bolt is withdrawn, the operating-lever may be within the end of the casing, and out of the way of any object which the sash may have to pass.

The cap, shown in fig. 3, has a longitudinal recess, E', rectangular or oval, according to the shape of the bolt, which fills said recess transversely.

Said recess E' causes the cap-body to swell upward centrally, as shown in fig. 1.

Said cap has flanges E on the sides of said recess E', parallel to each other, and made to step on the same plane.

Said flanges E are perforated with screw-holes, and the base, fig. 4, has similar perforations, through which both plates are held together, and in position when the lock is mounted, as shown in fig. 1.

Said cap has a part of its rear end cut away at S, on its under side, to make a clearance for the arm C of lever, as shown in figs. 1 and 3.

The ends of said cut *m n* form stops for said lever-arm, *m* receiving it against it when unlocked, and *n* stopping it when locked, as shown in figs. 1 and 2, and in such a manner that the knob A, when the lock is unlocked, will stand in from the outer edge of the sash-rail, as shown in fig. 1, thus insuring a clearance, for the knob of any object which the sash has to pass in raising it, and that the knob A, when the lock is locked, as shown in fig. 2, may stand in a right line with the bolt, thus insuring a secure lock, as the bolt can only be thrown back when the lever is turned back, as hereinafter explained.

The base, shown in fig. 4, is a plain, rectangular disk, upon which is mounted a spring rest, K, and guard F.

The rest K is located centrally toward the front end, and is of such form as to fill loosely a spring recess, K',

fig. 5, in the bolt. The spring lies in said recess, between K' and O. The rest enters before the spring at the end K'.

The spring being poised between said rest, when inserted, and the end O of recess acts to withdraw the bolt, and to keep the lug B on lever L' O, fig. 5, also pressed back against the guard F, as shown in fig. 2.

Said guard F is on the rear end of the base, fig. 4, and it is curved at *b* around the corner of base, in such a manner that lug B, on said lever, in passing from *a* to *d*, permits the spring in the bolt to bring it back, while the spring also, as stated, causes the lug B to hug the inside of said guard in such a manner that the lever will not stand when only half way, or even partly swung from *a* to *d*, or from *d* to *a*, thus insuring either the full throw of bolt out to lock the sash, or the full withdrawal of the bolt in, to insure precision in operating the sash.

The guard F, fig. 4, is of such a height from the base, in relation to the cut S in the cap, fig. 3, as not only to effect a clearance for the lever handle B C, between the plates, but also to guide said handle in the plane of its pivot at L', fig. 5, as shown in figs. 1 and 2.

Said handle B C, fig. 5, is pivoted to said bolt Z D, either by a rivet or hinge-joint connection, and the bolt and lever from Z to B are of such length in relation to the distance from the keeper H and guard F, that when the bolt and lever are in a right line, the bolt-head will be full in the keeper, which distances can be increased or diminished at pleasure, thus varying the length of throw and breadth of lock to different sizes of sash-rails.

The position of this lock is to be on top of the upper rail of the lower sash, either in the middle with keeper, as herein shown, or at either end of said rail, when the bolt must be kept in the window-jamb or in the side rail of the upper sash.

The keeper H, fig. 1, is shown to be on the lower rail on the upper sash. This is the usual place for this lock, and it is so made as to admit four good wood-screws, so as to insure more strength than most locks now in use possess.

Since inside shutters are becoming favorites, instead of outside shutters, the use of the "jimmy," enables burglars to open windows noiselessly and with ease, as the sash-locks on weighted windows are too weak and inefficient.

By constructing and locating my lock as described, it is believed much greater security will be attained.

It is obvious that the mechanism of my lock can also be embodied in a lift-latch or night-latch. I therefore do not confine its use solely to window-sash.

It is also obvious that the bolt in my lock is retractile, as the spring acts to withdraw the bolt, and not to throw it forward.

The guard F, it will be observed, is like a switch siding, on which, by means of lug B on lever-arm, the bolt is shifted, said lug, while sweeping the curve *a b d*, also sweeps up and down an incline in relation to the line of the bolt.

I claim as my invention—

The combination of the lever C, pivoted at its end

to the bolt D, with the lug B, the inclined rim or projection F, and the opening in the side of the upper casing, all arranged so that, when the bolt is withdrawn, the lever passes within the end of the case, for the purpose herein set forth.

ALBERT COOPER.

Witnesses:

JOHN MAGLAUCHLIN,
THEOPHILUS WEAVER.