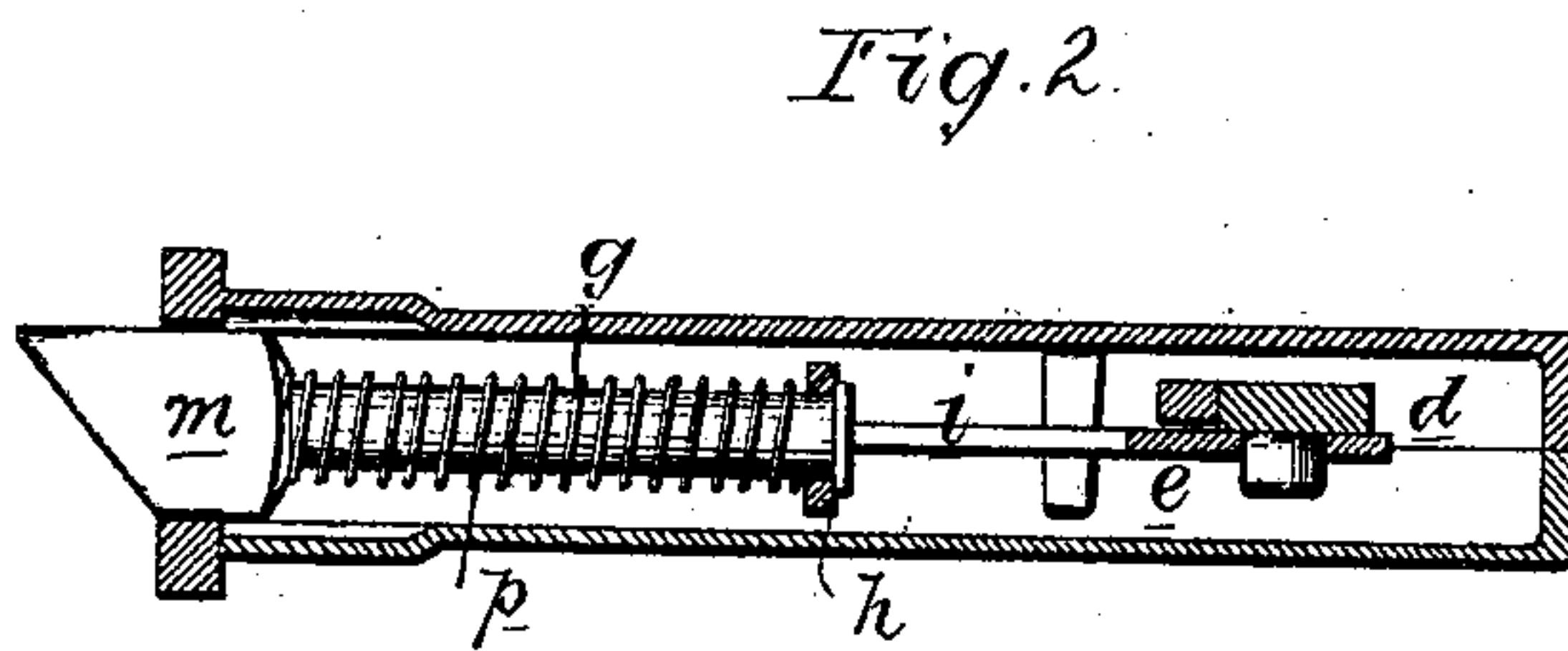
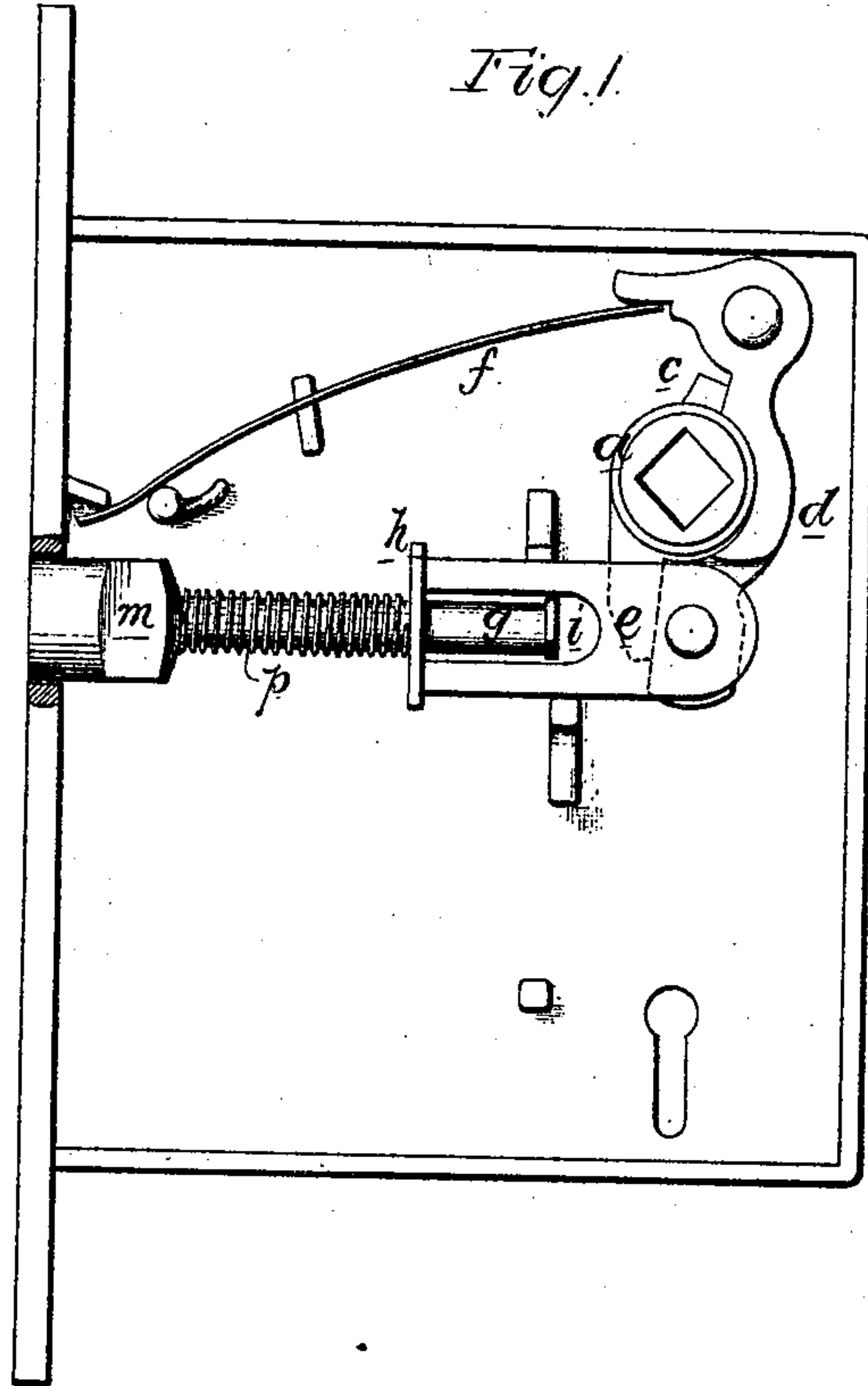


W. M. GRISCOM.

REVERSIBLE KNOB LATCHES.

No. 179,015.

Patented June 20, 1876.



Witnesses
Harry Houson for
Harry Smith

William M. Griscom
by his Attorneys
Houson and Son

UNITED STATES PATENT OFFICE.

WILLIAM M. GRISCOM, OF READING, PENNSYLVANIA.

IMPROVEMENT IN REVERSIBLE KNOB-LATCHES.

Specification forming part of Letters Patent No. **179,015**, dated June 20, 1876; application filed May 25, 1876.

To all whom it may concern:

Be it known that I, WILLIAM M. GRISCOM, of Reading, Pennsylvania, have invented an Improvement in Latch-Locks, of which the following is a specification:

The object of my invention is to so construct a latch-lock that, while considerable resistance is presented to the retraction of the latch-bolt by means of the knob, said bolt may be moved inward by a very slight pressure applied to its end. This object I attain in the following manner:

In the drawing, Figure 1 is a sectional view of a lock, showing my improved latch-bolt and its operating devices, the locking-bolt and devices connected therewith being removed; and Fig. 2, a sectional view.

The devices by which the latch is retracted on turning the knob are similar to those used in ordinary locks of this class, and consist of a hub, *a*, having a central opening adapted to the square shank of the knob, and a projection, *c*, bearing against the long arm of the bell-crank lever *d*, the lower end of the latter being connected to the inner end of the plate *e*, which is ordinarily secured to the stem of the latch-bolt. Against the short arm of the bell-crank lever *d* bears the inner end of a spring, *f*, the opposite end of which is secured between lugs on the lock-case, the spring tending to resist the movement of the lever caused by turning the knob to retract the bolt.

The stem *g* of the bolt, instead of being connected directly to the end of the plate *e*, as usual, passes through an opening in a lug, *h*, at the end of the said plate, and has a head at the inner end to prevent its withdrawal, a slot, *i*, in the plate, however, permitting the

free inward movement of the stem of the bolt. Between the lug *h* of the plate *e* and the head *m* of the bolt intervenes a coiled spring, *p*, tending to resist the inward movement of the head *m*, the spring being made so light and weak, however, that a comparatively slight pressure upon the end of the bolt will move it inward.

In a lock constructed as above described the latch will operate readily upon the closing of the door; but the desired effect is required to retract it by turning the knob, while, owing to the fact that the spring *p* is confined between the head *m* of the bolt and the lug *h* on the plate *e*, the removal of the bolt from the control of the casing in order to reverse it may be effected without risking the displacement of the spring, thereby overcoming an objection to locks in which the latch-spring is separate from the bolt and plate.

I do not desire to claim, broadly, a spring-latch which can be moved inwardly independently of the knob mechanism; but

I claim as my invention—

The combination of the lever *d* and plate *e* with the latch *m* and its spring *p*, carried by said plate *e*, but so arranged that the latch is capable of moving inwardly independently of the plate, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM M. GRISCOM.

Witnesses:

F. B. RULER,
F. M. BANKS.