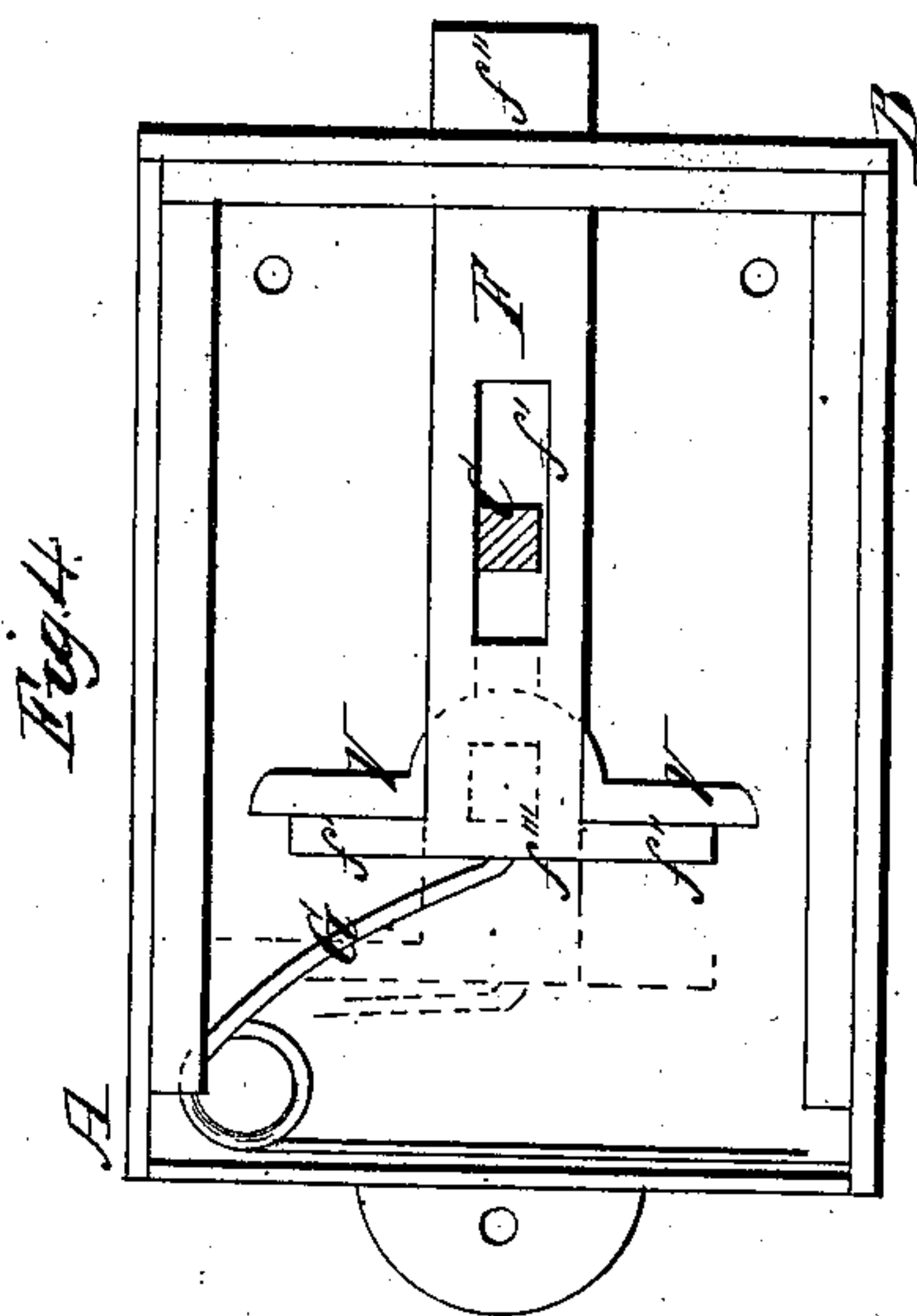
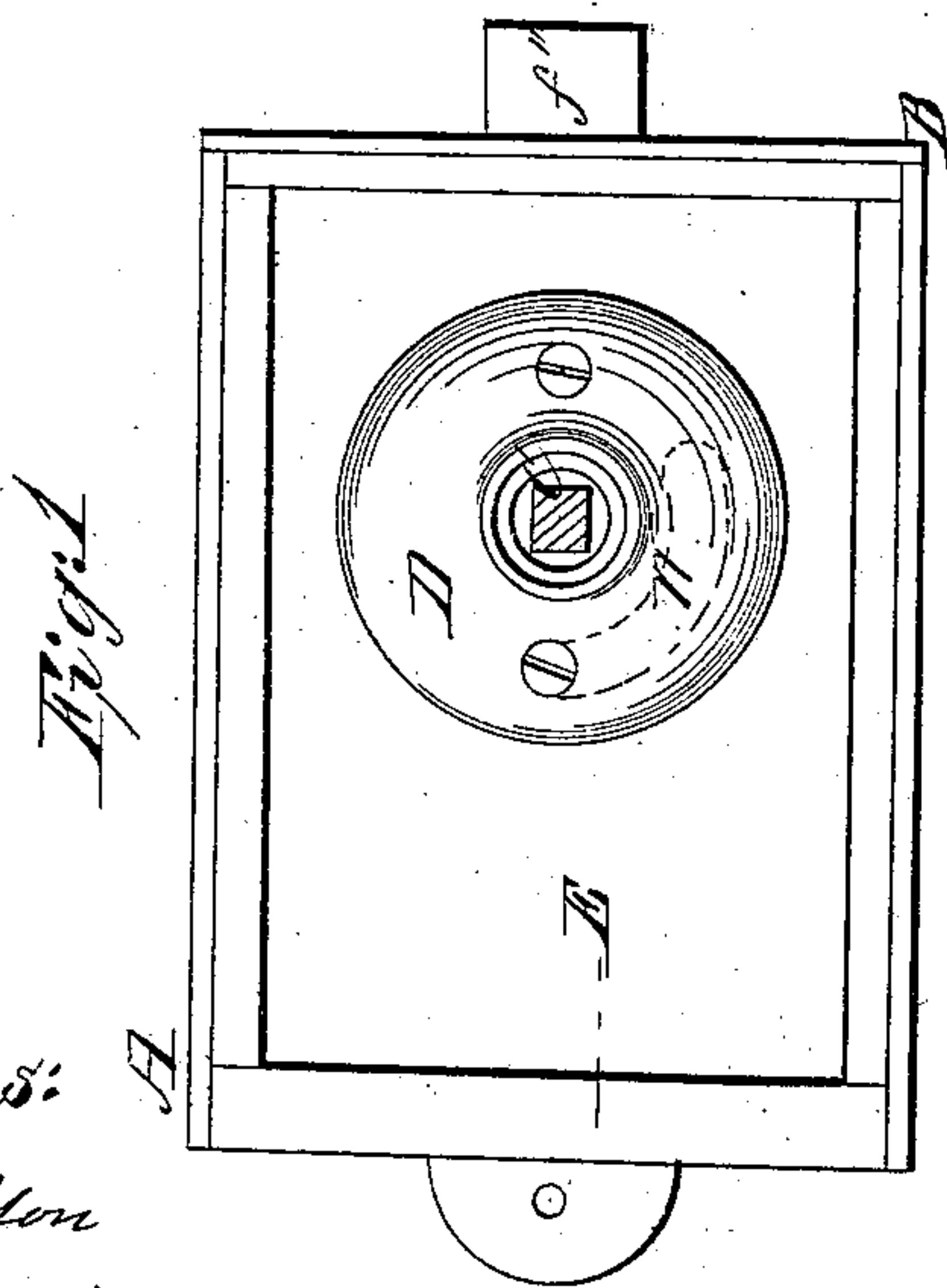
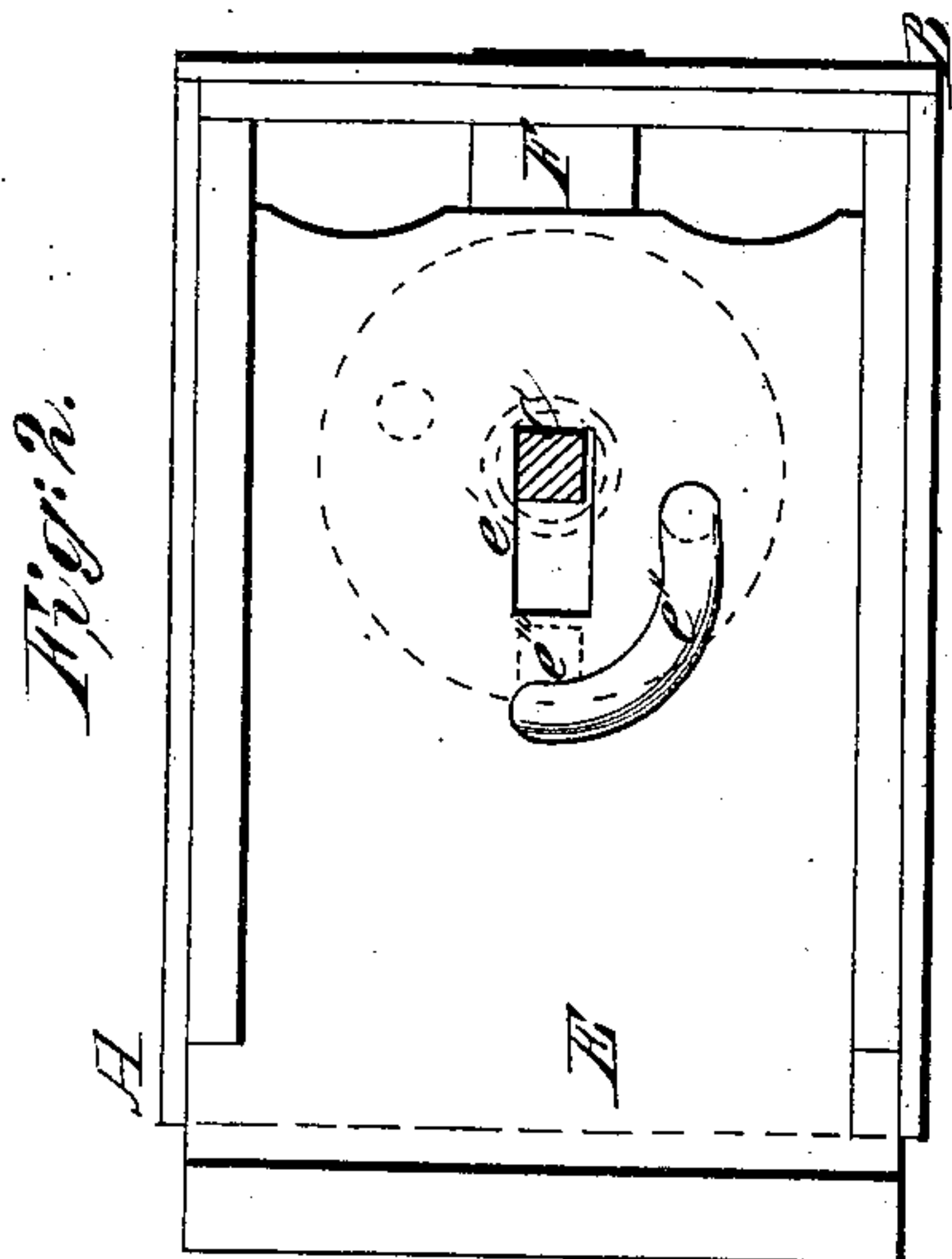


# A. Spangler, Latch.

No 84,227.

Patented Nov. 17, 1868.



Witnesses:

Benj. Morison

Wm. H. Morison

Inventor:

Albert Spangler



# United States Patent Office.

ALBERT SPANGLER, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 84,227, dated November 17, 1868.

## IMPROVEMENT IN LATCHES.

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 SPANGLER, of the city of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Locks or Fastenings for Stable-Doors, Gates, &c.; 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 accompanying drawings, making a part of this specification, in which—

Figure 1 is a front view of the face-side of said lock or fastening, its front or outside knob being removed from the shank;

Figure 2, a like view of same, having both the front knob and its collar removed, and the catch-bolt retracted;

Figure 3, a transverse section of the collar; and

Figure 4, the same lock or fastening, having its outside knob, collar, and face-plate removed.

Like letters of reference indicate the same parts when in the different figures.

The object of my improvement is to afford a more simply-constructed and reliable secret lock, to be operated without a key, for securely fastening barn or stable-doors, gates, &c.; and

My invention consists, as hereinafter described and specified, in so constructing, arranging, and combining together the shank of the outside knob, its collar, the face-plate, and the catch-bolt with the body or frame of the lock, that the said catch-bolt cannot be moved or retracted by any one on the outside of the door or gate without first properly adjusting the said collar and moving the said face-plate for the purpose.

Referring to the drawings, A B is the body or frame of the lock or fastening; C, the shank of the outside knob; D, the collar; E, the face-plate of the lock; and F, the catch-bolt of the same.

The shank C of the outside knob is fixed rigidly in the back plate of the body or frame A B, and projects perpendicularly forward through a slot,  $f'$ , in the catch-bolt F, and also through a corresponding slot,  $e'$ , in the face-plate E, where it enters and is fixed rigidly in the usual knob, (not shown in the drawings,) with the collar D between the said face-plate and knob.

The collar D fits loosely around the shank C and upon the face-plate E, so that it can be readily turned by one's thumb and finger partly around the shank C, the limits of its motion, in either direction, being controlled by a slot,  $e''$ , made partly concentric and partly horizontal or straight in the plate E, and a short stud,  $d'$ , on the under side of D.

The face-plate E is fitted within the front edges of the frame or body A B, so that it can be slid horizontally outward, by hand, a distance equal to the length

of the projecting end,  $f''$ , of the catch-bolt F, the slot  $f'$  in the said catch-bolt and the slot  $e'$  in the face-plate E allowing the said face-plate and bolt to move past the fixed shank C.

The catch-bolt F is constantly being pressed forward by a spring, G, acting against its rear end,  $f'''$ , and is retracted by one's drawing the sliding face-plate E outward, a short stud,  $e'''$ , (see dotted line in fig. 2,) on the under side of the latter, resting in the rear end of the slot  $f''$  of the bolt F, for the purpose.

The bolt F is operated from the inside of the building or enclosure by a knob fixed on a rotary shank, which operates a cross-piece,  $v$ , against the inner sides of projecting arms,  $f^1 f^1$ , at the rear end  $f'''$  of the catch-bolt F, in the usual well-known manner.

In the operation of this lock or fastening by a person on the outside of the door or gate, it will be seen that, if the collar D be turned so as to bring its stud,  $d'$ , to the lower end of the concentric portion of the slot  $e''$ , (see dotted line  $w$ , fig. 1,) the catch-bolt F can then be drawn back by sliding the plate E outward, the stud  $d'$  sliding along to the end of the straight portion of the said slot, (see  $x$ , fig. 2,) and that, when released, the slide E and bolt F will be forced back again to their original position by the reaction of the spring G.

It will also be seen that if the collar D be then turned in an opposite direction until its stud,  $d'$ , reaches the upper end of the concentric portion of slot  $e''$ , neither the slide E nor the bolt F can be retracted by any one on the outside of the door or gate, and that therefore a proper adjustment of the collar D will always be a prerequisite in order to retract the bolt F.

A fastening of this sort is very desirable for stable-doors and gates, as a key will not be required to be at hand or carried in one's pocket for opening them, and the particular adjustment required of the collar D for the purpose, is simple, ready, and yet not likely to be observed or understood by a thief or a stranger.

Having thus fully described my improvement in secret locks or fastenings for stable-doors, gates, &c.,

What I claim as new therein, of my invention, and desire to secure by Letters Patent, is confined to the following, viz:

I claim the sliding face-plate E, with its slots  $e'$  and  $e''$ , in combination with the loose collar D, the fixed shank C, and the sliding spring-bolt F, the said parts being constructed and arranged so as to operate as and for the purpose described.

ALBERT SPANGLER.

Witnesses:

BENJ. MORISON,  
WM. H. MORISON.