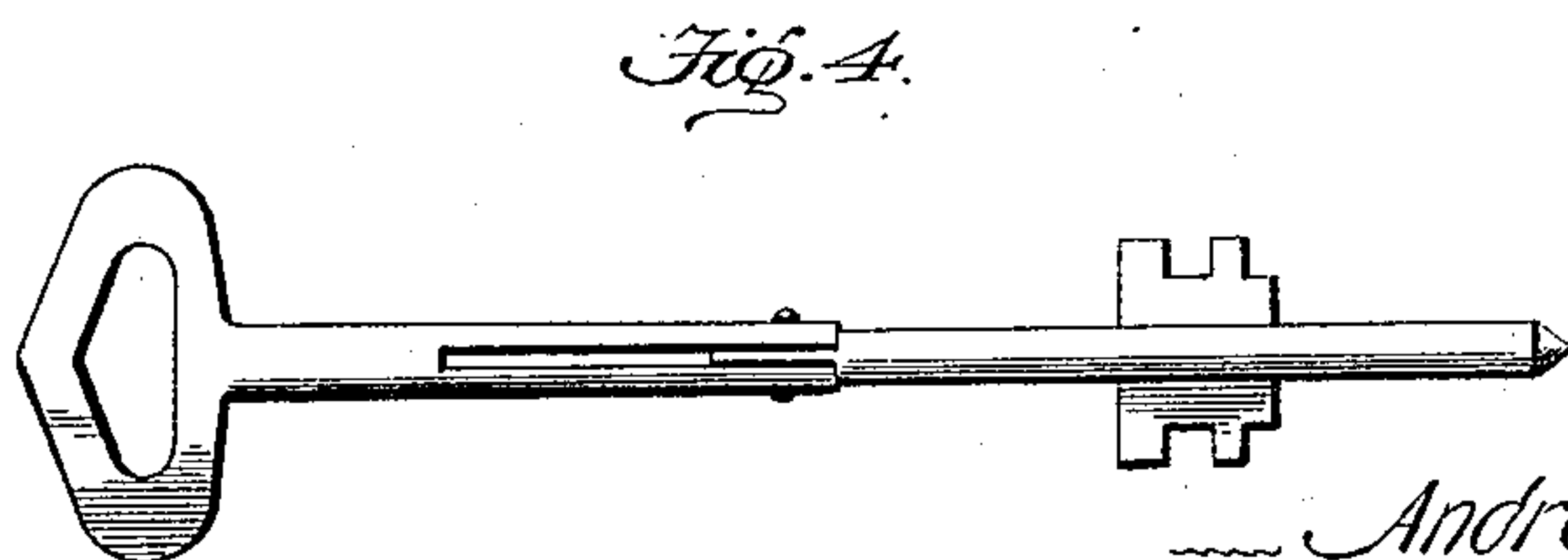
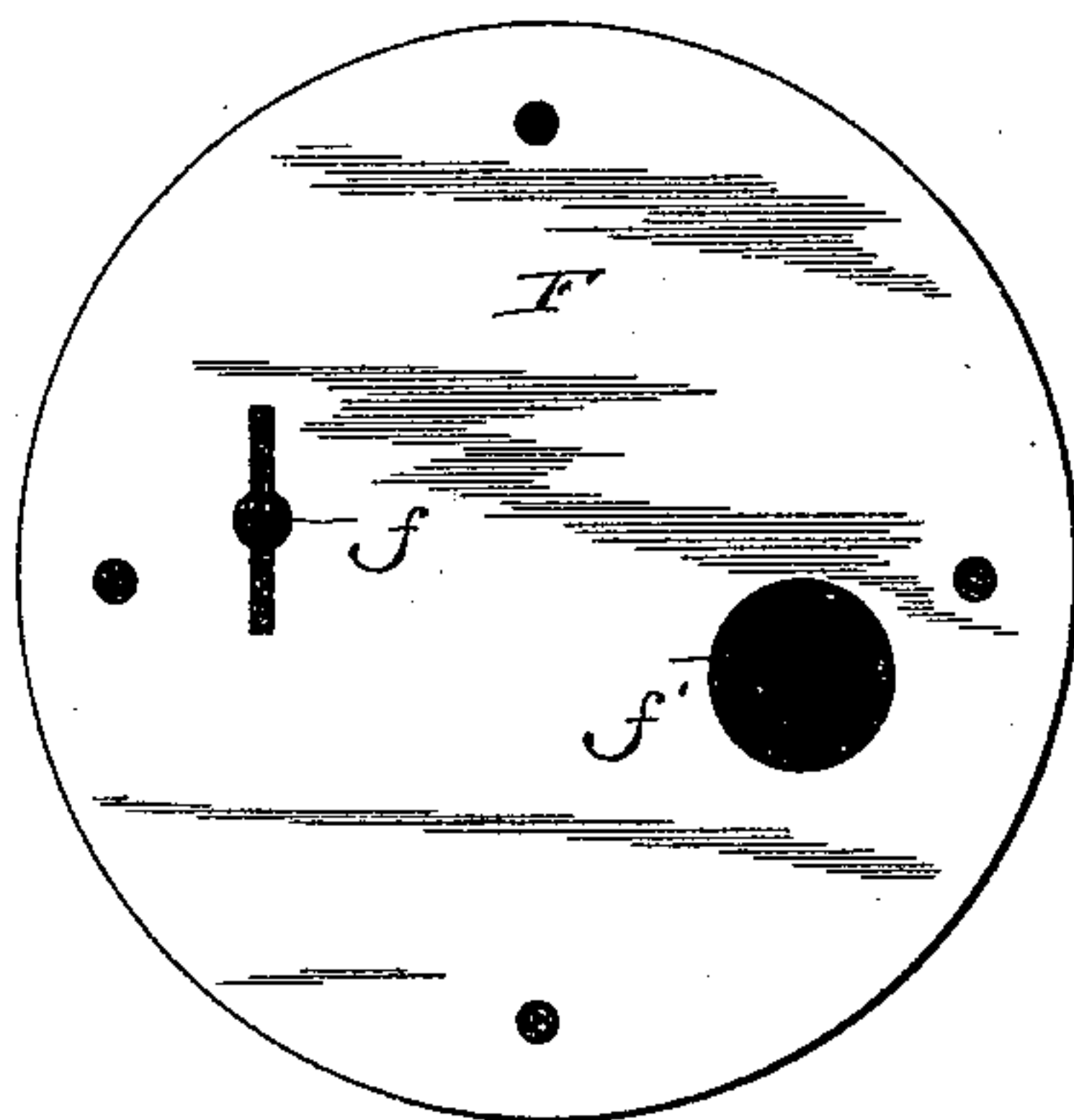
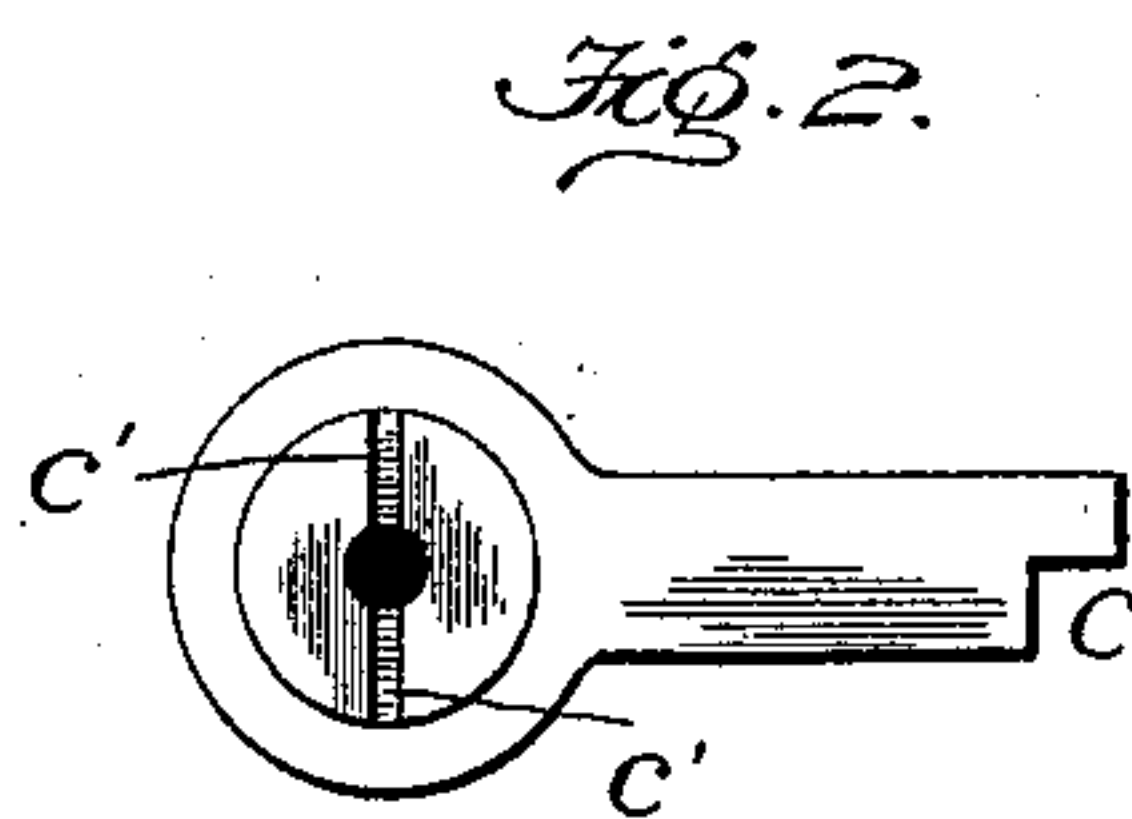
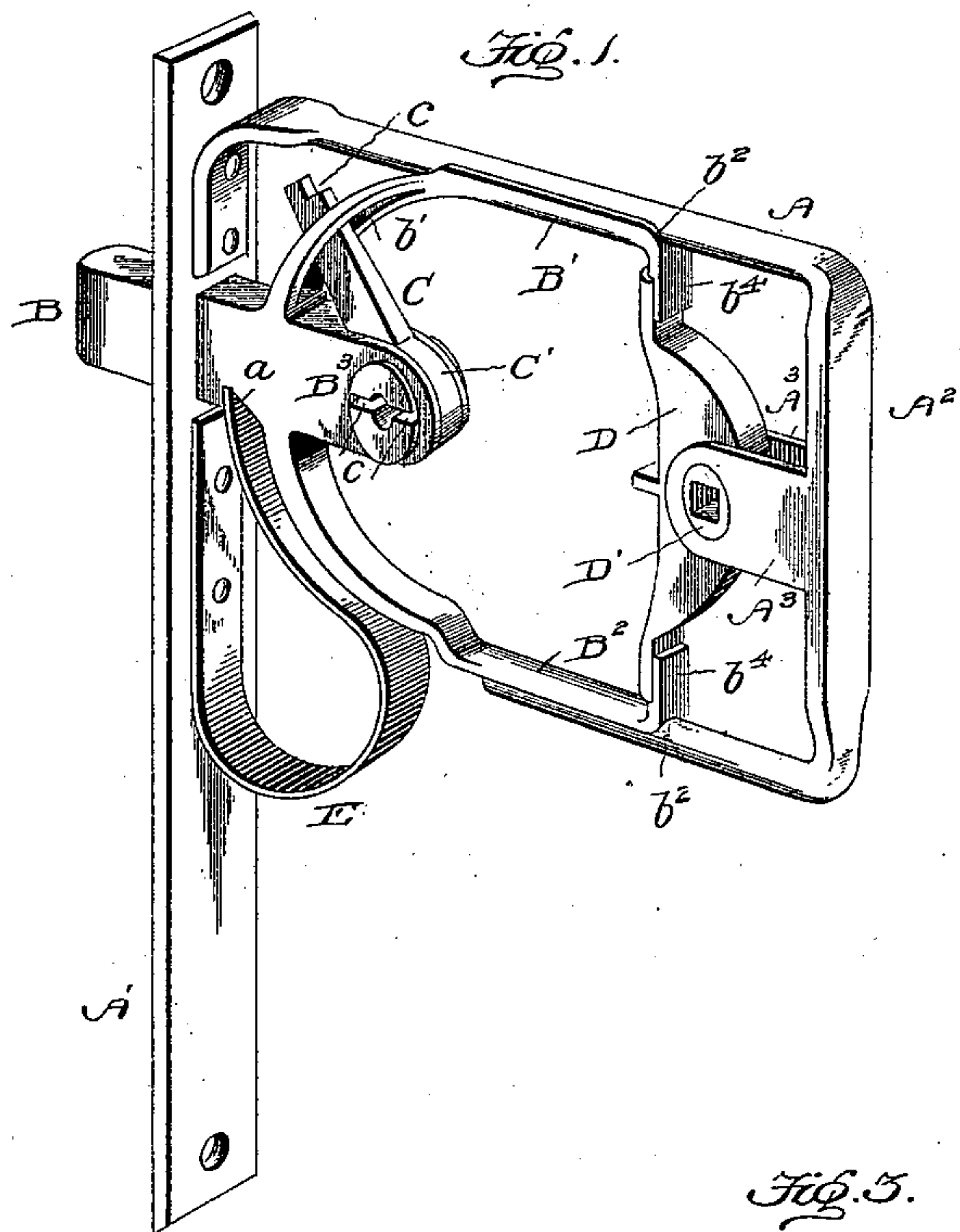


(No Model.)

A. A. SMITH.  
COMBINED LATCH AND LOCK.

No. 550,424.

Patented Nov. 26, 1895.



*Witnesses*

Wm O'Cashie

*J. M. Copenhaver.*

Andrew A. Smith

Inventor

BY

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Att'y's.

# UNITED STATES PATENT OFFICE.

ANDREW A. SMITH, OF HOTCHKISS, ASSIGNOR OF ONE-HALF TO WILLIAM H. CROTSER, OF DELTA, COLORADO.

## COMBINED LATCH AND LOCK.

SPECIFICATION forming part of Letters Patent No. 550,424, dated November 26, 1895.

Application filed May 14, 1895. Serial No. 549,280. (No model.)

*To all whom it may concern:*

Be it known that I, ANDREW A. SMITH, a citizen of the United States, residing at Hotchkiss, Delta county, Colorado, have invented certain new and useful Improvements in a Combined Latch and Lock, of which the following specification contains a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective of the latch complete. Fig. 2 is a view of the locking dog or detent removed. Fig. 3 is a face view of the escutcheon, and Fig. 4 shows the key.

This invention relates to the combined latch and lock shown in another application filed by me of even date herewith, Serial No. 549,279, the present invention consisting in the construction and arrangement of parts hereinafter set forth, and specifically pointed out in the claims.

A represents the skeleton frame constructed substantially as in the application before referred to, except that the lower or bottom member of the back plate or band  $A^2$  does not extend to the face-plate  $A'$ .

B is the latch provided with a yoke formed of the curved arms  $B'$   $B^2$ , at the junction of which is formed the bifurcated bearing  $B^3$ , in which turns the hub  $C'$  of the locking-dog C, having a notched free end  $c$ . This hub is formed separate from the dog, but fits the same sufficiently snug to cause the two to turn together, the dog working in the space between the two members of the bearing. The upper yoke-arm  $B'$  is slotted, as at  $b'$ , to permit the free end of the dog C to be swung up therein when it is in active position. The opposite sides of the yoke-arms  $B'$   $B^2$  are provided with grooves or channels  $b^2$ , which receive the adjacent edges of the upper and lower members of the back plate or band  $A^2$ , and thus the latch is guided in its sliding movement.

The rear vertical member of the back plate or band  $A^2$  is formed or otherwise provided with apertured ears or bearings  $A^3$  in longitudinal alignment with the latch and the hub  $C'$ , and in these bearings or ears  $A^3$  is mounted the hub  $D'$  of the knob-spindle cam D, the opposite ends of which engage the inwardly-extending projections  $b^4$  at the ends of the

latch-yoke, so that as the cam is rocked one or the other of its ends will retract the latch.

E is a bow-spring secured to the face-plate  $A'$  with its free end entering a notch  $a$  in the lower edge of the latch. This spring occupies the space formed between the face-plate and lower member of the back plate.

F is an escutcheon, having key-holes  $f$  and knob-spindle opening  $f'$ , just as in the application before referred to, and the key is also the same.

When it is desired to lock the latch against retraction, the key is inserted into the hub  $C'$  with its bit engaging the notches  $c$  therein, and the dog C is swung down into longitudinal alignment with the latch, in which position its notched end will rest upon the lug  $D'$ , formed on the middle part of the cam D. In this position it will be impossible to move the latch to the rear, nor can the knob-spindle cam be rocked in either direction.

By the construction above set forth a very compact, simple, and inexpensive latch and lock is provided.

I do not claim, broadly, in this application the key-operated detent carried by the latch, nor the skeleton frame containing such mechanism, nor such dog having a key-operated hub, nor the skeleton frame having the latch-operating spring secured at one end thereto and at its free end engaging the latch, as such combinations and constructions are claimed, generically, in my other application before referred to.

Having thus described the invention, what is claimed is—

1. The combination with the latch provided at its rear end with a swinging key-operated locking arm or dog and a yoke, of the knob spindle cam engaging the rear ends of the yoke and adapted to be engaged by the free end of said locking arm or dog, substantially as set forth.

2. The combination with the latch provided at its rear end with a yoke and a swinging key-operated locking dog or arm, having a notched free end, of the knob spindle cam having a lug or projection at its middle for engagement by said notched end, substantially as set forth.

3. The combination with the latch having



a yoke the upper arm of which is slotted and the locking dog pivoted at the juncture of the yoke arms to swing up into said slot, of the knob spindle cam pivoted in rear of the latch, 5 engaging its yoke arms and adapted to be engaged in turning the free end of the locking dog, substantially as set forth.

4. The combination with the skeleton frame, of the latch having a yoke, a tongue and 10 groove connection between the frame and the yoke, a knob spindle cam for operating the yoke and latch, and a spring secured to the face plate of the frame and engaging the lower edge of the latch, substantially as set forth.

15 5. A combined latch and lock consisting in the skeleton frame, the lower member of the

back plate of which is spaced from the face plate, the latch having a yoke the arms of which are grooved to receive the adjacent 20 edges of the top and bottom members of the back plate, the knob spindle cam journaled in rear of the latch and provided with a central lug or projection, the key operated dog pivoted to the rear end of the latch to en- 25 gage the said projection or lug with its free end and the spring secured to the face plate and engaging with its free end the lower edge of the latch, substantially as set forth.

ANDREW A. SMITH.

Witnesses:

H. R. HICE,

GEO. H. DUKE.