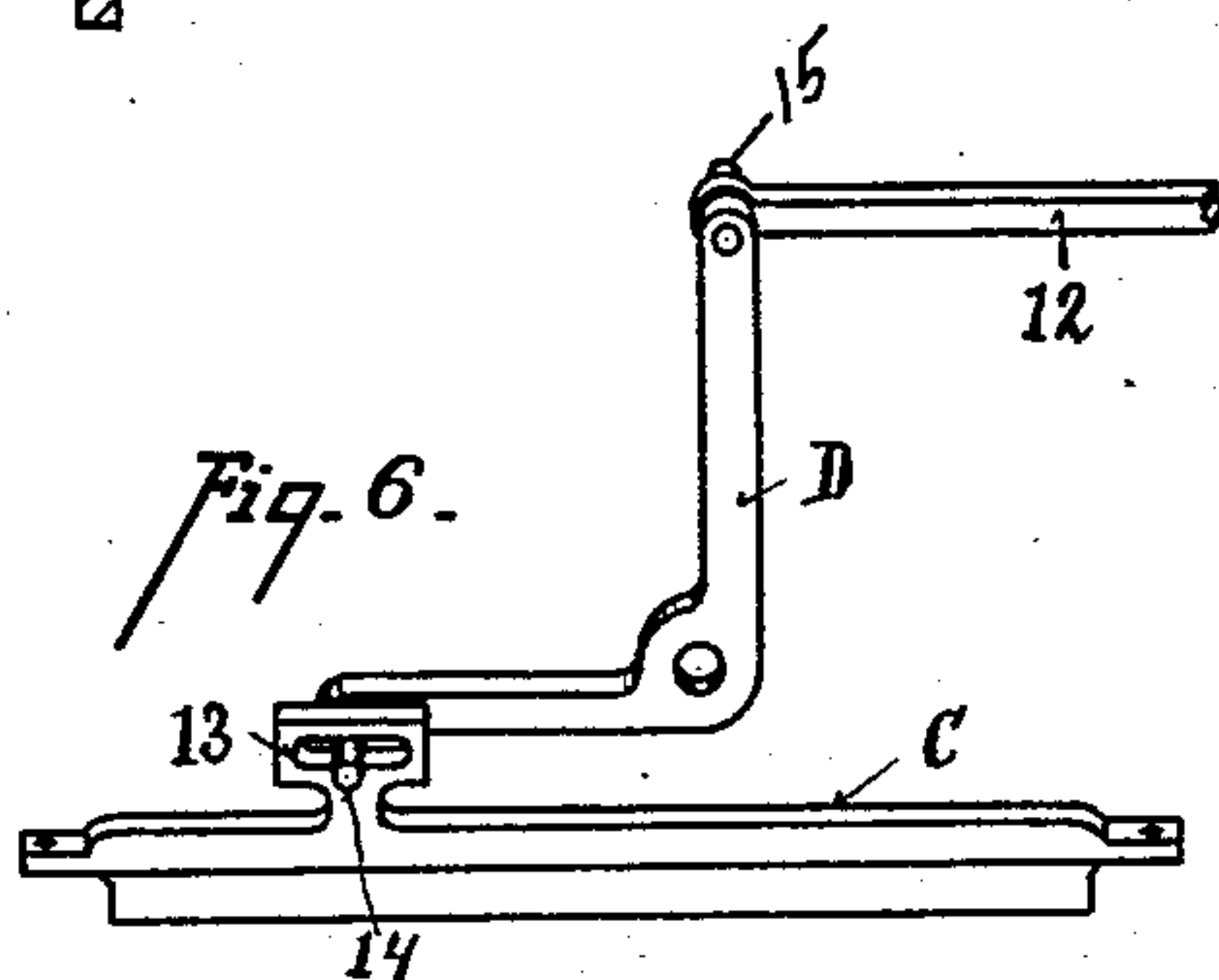
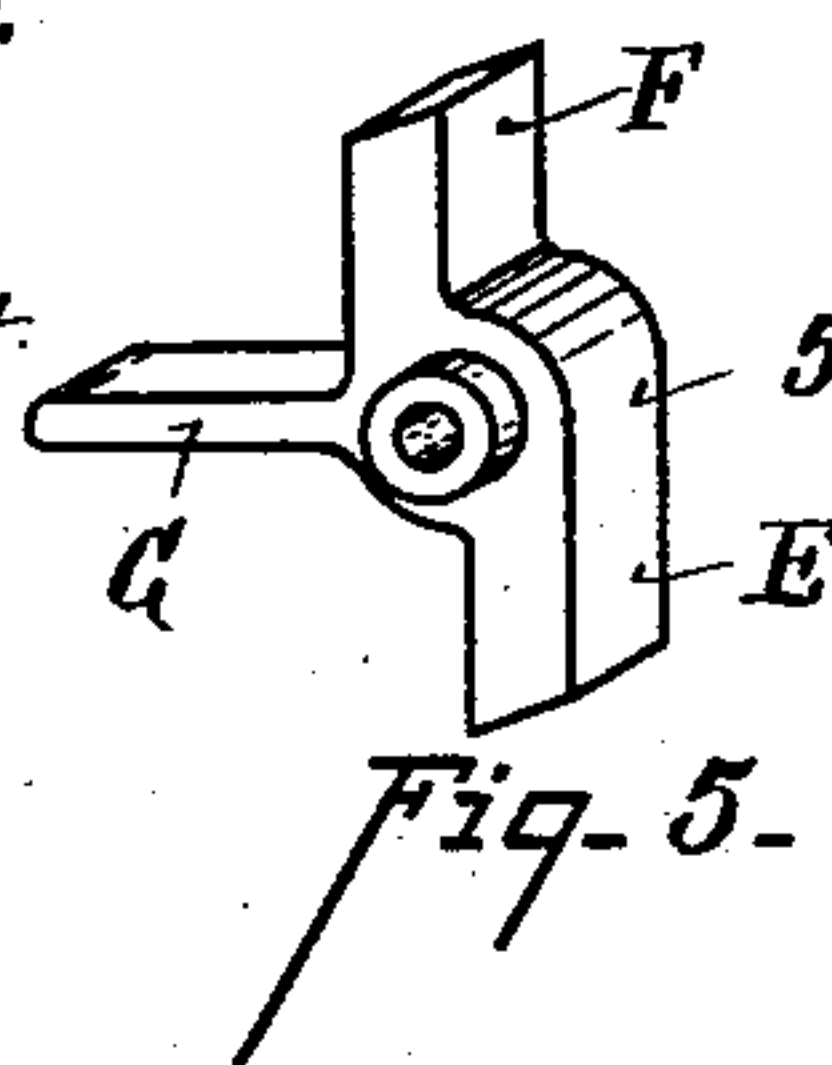
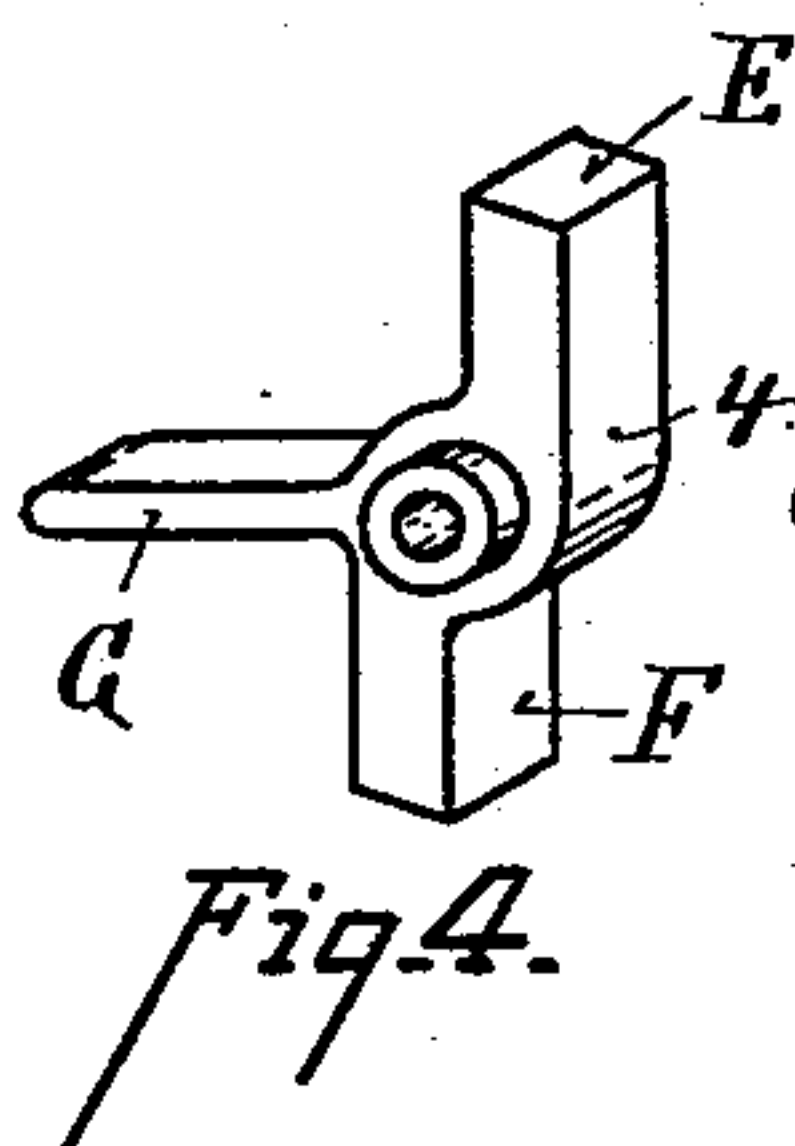
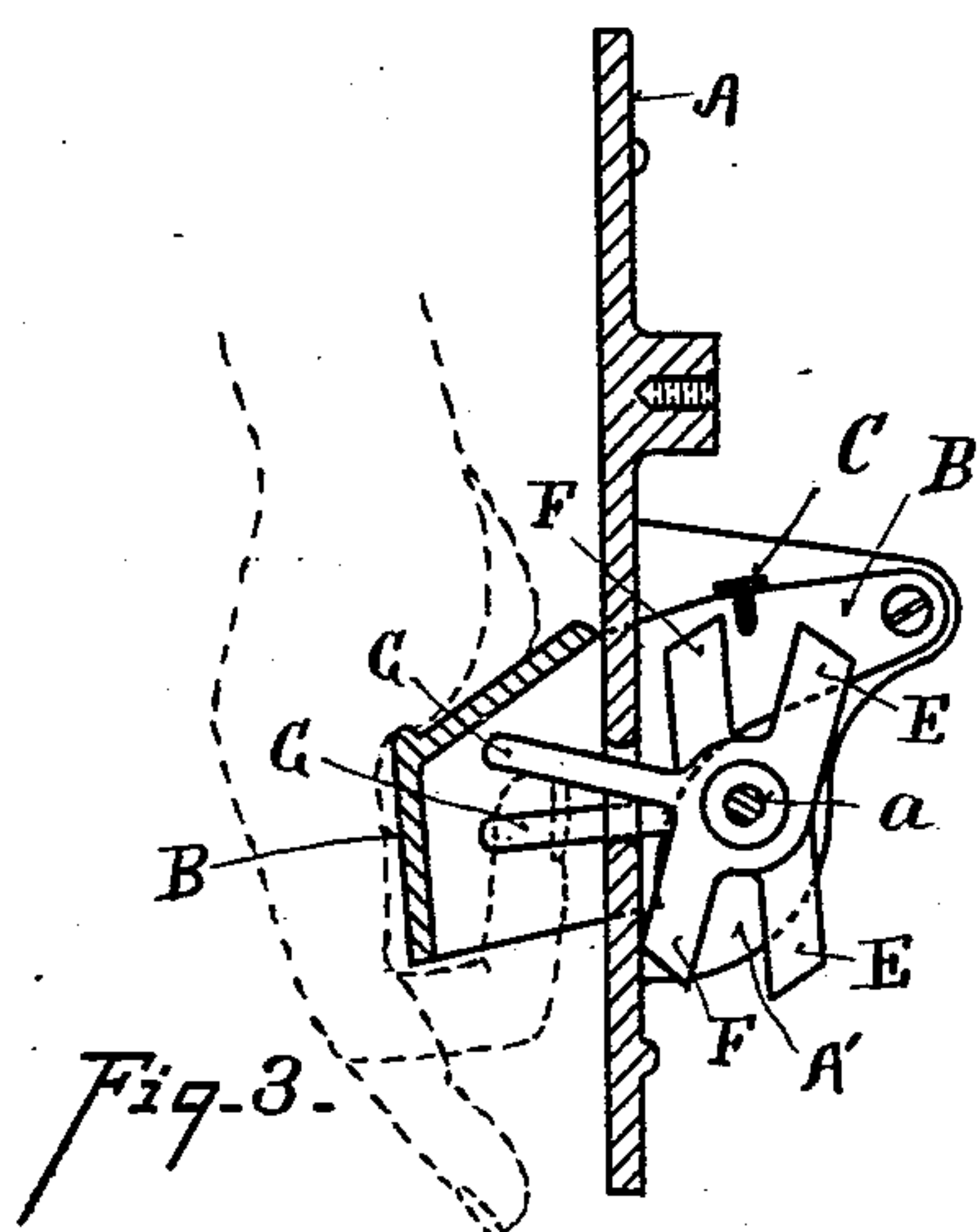
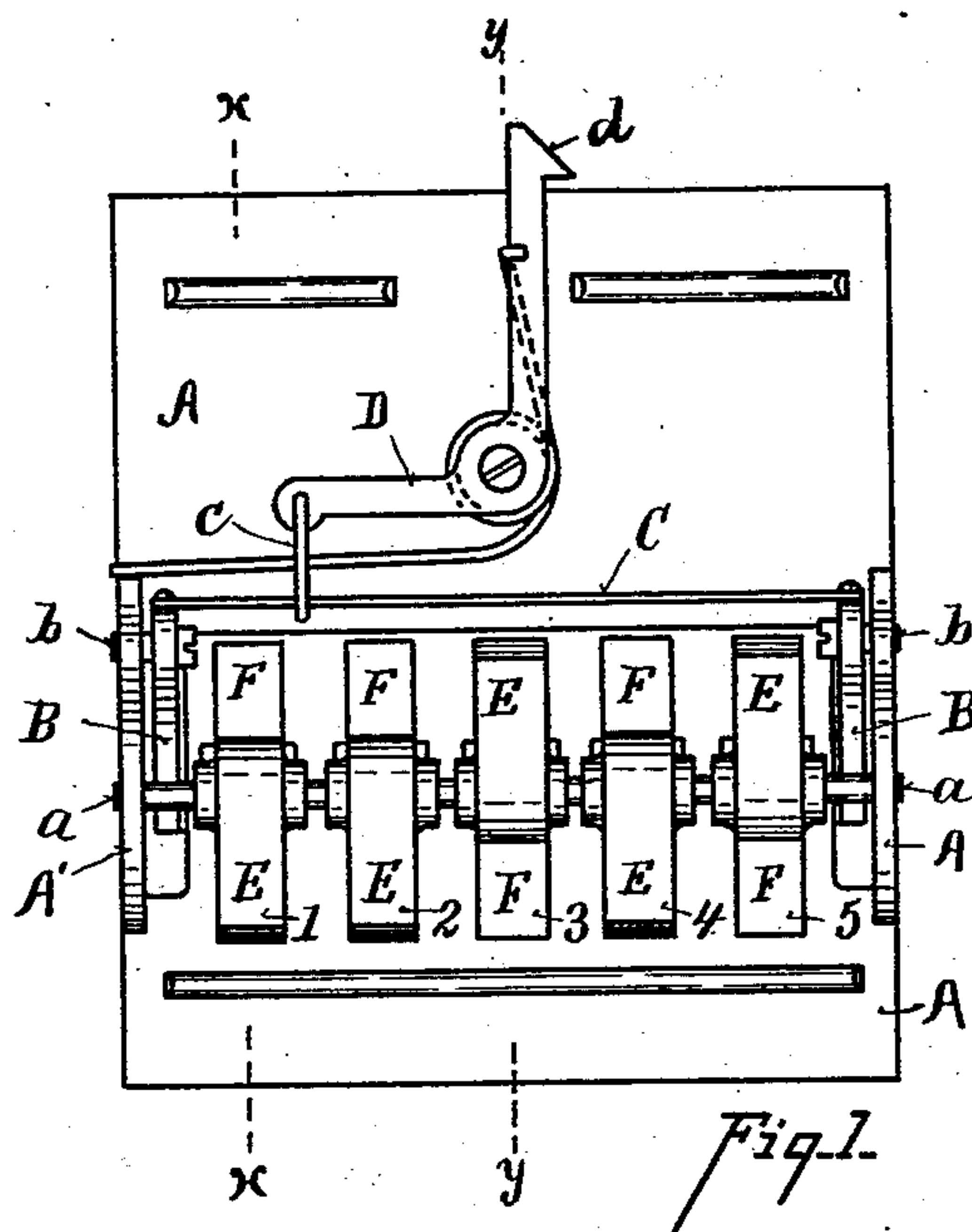
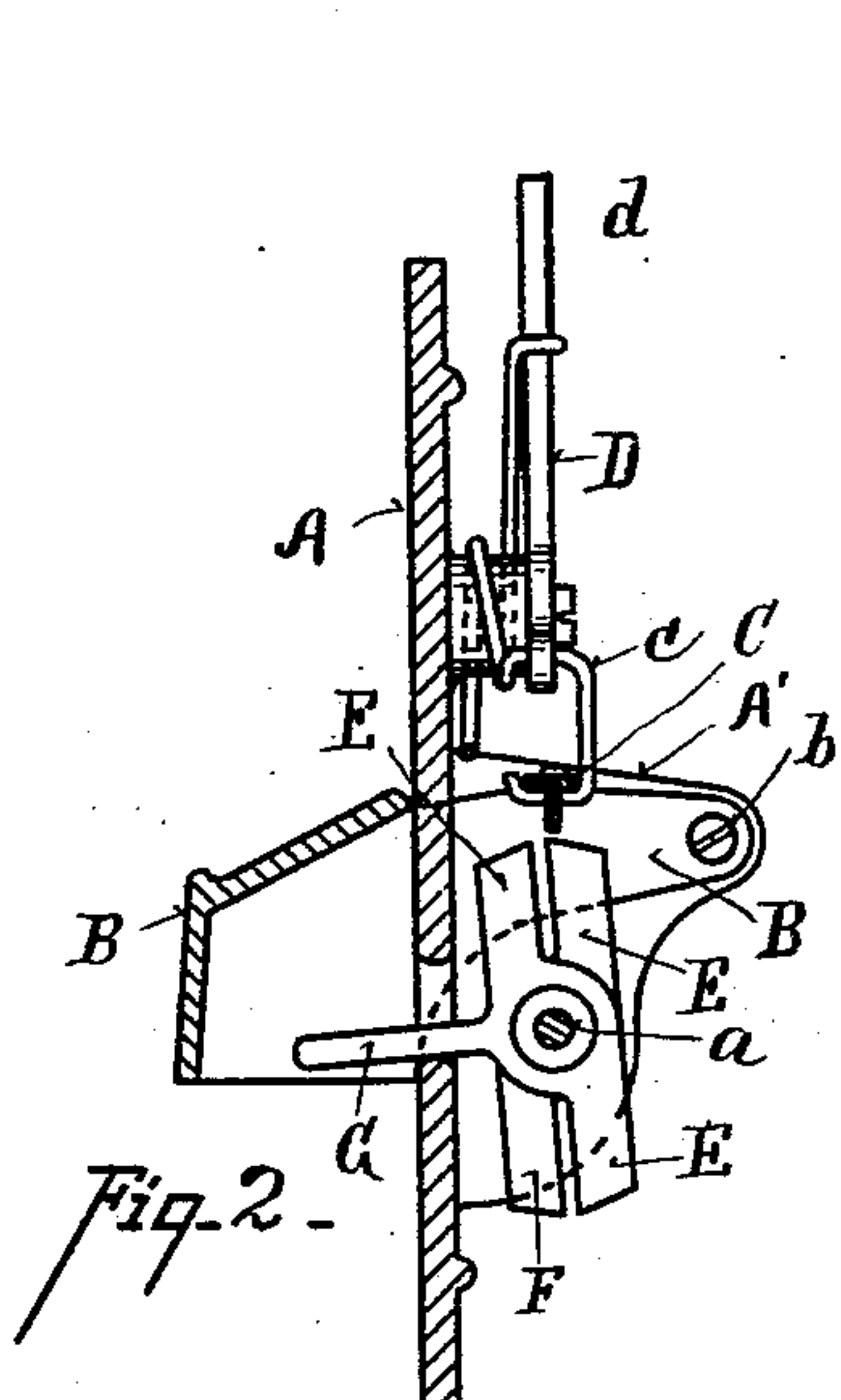


(No Model.)

E. F. PRICE.
COMBINATION LOCK.

No. 563,061.

Patented June 30, 1896.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWIN F. PRICE, OF WASHINGTON COURT-HOUSE, OHIO.

COMBINATION-LOCK.

SPECIFICATION forming part of Letters Patent No. 563,061, dated June 30, 1896.

Application filed January 27, 1896. Serial No. 577,042. (No model.)

To all whom it may concern:

Be it known that I, EDWIN F. PRICE, residing at Washington Court-House, in the county of Fayette and State of Ohio, have invented certain new and useful Improvements in Combination-Locks, of which the following is a specification.

My invention relates to improvements in combination-locks for show-cases and similar articles.

The features of my invention are more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an inside plan view of the lock. Fig. 2 is a section on line xx , Fig. 1. Fig. 3 is a section on line yy , Fig. 1. Figs. 4 and 5 are perspective views of the tumblers. Fig. 6 represents a modification of the connecting crank mechanism shown in Fig. 1.

1 2 3 4 5 represent the lock-tumblers journaled upon a rod a , which is supported in ears or lugs A' , projecting from the frame-piece A .

B represents a yoke-piece pivoted at b to the ears A' .

C represents a cross-bar secured at opposite ends to the yoke B and located above the tumblers, so that the yoke B can only drop or be depressed to retract the bolt when the tumblers have been brought to the proper position.

D represents a spring-actuated bell-crank lever hinged at one end to cross-bar C by means of a link c and carrying at the opposite end the bolt or latch d .

The tumblers each consist of a hub from which project counterpart dogs $E F$, and also an actuating lever or key G . When set in the lock, the actuating-levers pass through openings g in the frame-piece, and thereby limit the rotary movement of the tumblers upon the rod a . The actuating-levers also act as a weight-arm to hold the tumblers normally in the position shown in Fig. 2, from which position they may be moved by pressing the actuating-levers with the fingers, as shown in Fig. 3.

In the modification shown in Fig. 6 the cross-bar C is provided with a lug 13, pierced with a slot in which the crank-pin 14 of crank D engages so as to rock said crank when the

cross-bar C gravitates with the yoke B , to which it is attached.

15 represents a crank-pin at the upper arm of crank D , engaging with a rod 12, which is adapted to operate the hasp or catch for locking either one or more drawers as the occasion may require.

Mode of operation: The tumblers normally rest in the position shown in Figs. 1 and 2, tumblers 1, 2, and 4 being passive tumblers and resting normally out of the path of the cross-bar C , while tumblers 3 and 5 are active tumblers, resting normally in the path of the cross-bar and requiring to be moved out of the path of the cross-bar by the fingers of the operator, after which the yoke-frame can gravitate to the position shown in Fig. 3 to release the bolt.

Should an inexperienced operator press the actuating-levers of the passive tumblers or any one of them, they would be brought into position to dog the cross-bar C and prevent the opening of the case.

The tumblers are either active or passive, according to the position in which they are placed upon the rod a . Thus a tumbler placed upon the rod in the position Fig. 4 would be an active tumbler, but if reversed to the position shown in Fig. 5 would become a passive tumbler. The rod a can be readily removed and the several tumblers adjusted when desired to change the combination.

It will be seen that by lifting the lever or levers G of the active tumbler or tumblers, through which the cross-bar C is normally supported, the said cross-bar will gravitate with the pivoted yoke B , thereby rocking the crank-lever D so as to retract the latch or bolt.

Having described my invention, what I claim is—

1. In a lock, the combination with a bell-crank lever, of a pivotally-supported yoke having a cross-bar loosely connected with one arm of said bell-crank, and a series of tumblers each provided with an actuating-lever and two dogs, one of said dogs being held, by gravity, normally in engagement or normally out of engagement with said cross-bar, depending upon the position or arrangement of the tumblers, substantially as described.

2. In a lock, the combination with a bolt

or latch, and an actuating bell-crank lever, of a pivotally-supported yoke comprising a cross-bar in loose engagement with one arm of said bell-crank, and a series of tumblers
5 each provided with an actuating-lever and two dogs, interchangeably mounted, and one of said dogs in each tumbler being held, by gravity, normally in engagement or normally out of engagement with said cross-bar, accord-
10 ing to the position in which the said tumblers are arranged and whereby, on actuation of the proper tumbler or tumblers, the yoke and cross-bar will be released and the bolt or latch retracted, substantially as described.
15 3. In a lock, the combination with a spring-pressed bell-crank lever, and a latch or bolt actuated by said lever, of a pivotally-sup-

ported yoke comprising a cross-bar in loose engagement with one arm of said bell-crank, and a series of interchangeably-arranged 20 tumblers each provided with an actuating-lever and two dogs, one of said dogs in each tumbler being adapted to lock with, or be disengaged from, the cross-bar of the yoke according to the position of the tumbler or the 25 movement imparted thereto, substantially as described.

In testimony whereof I have hereunto set my hand.

EDWIN F. PRICE.

Witnesses:

JOHN LOGAN,
P. E. DEMPSEY.