

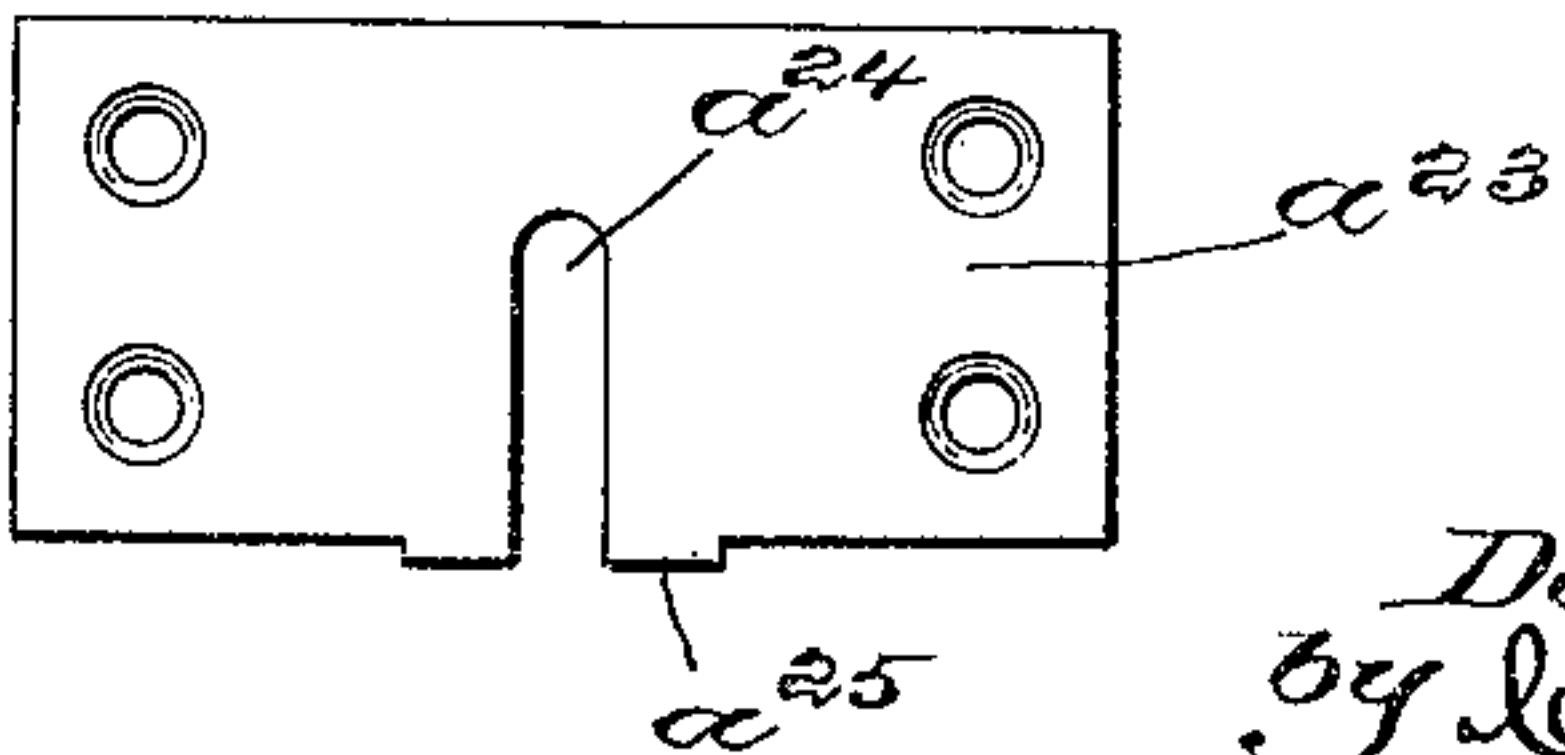
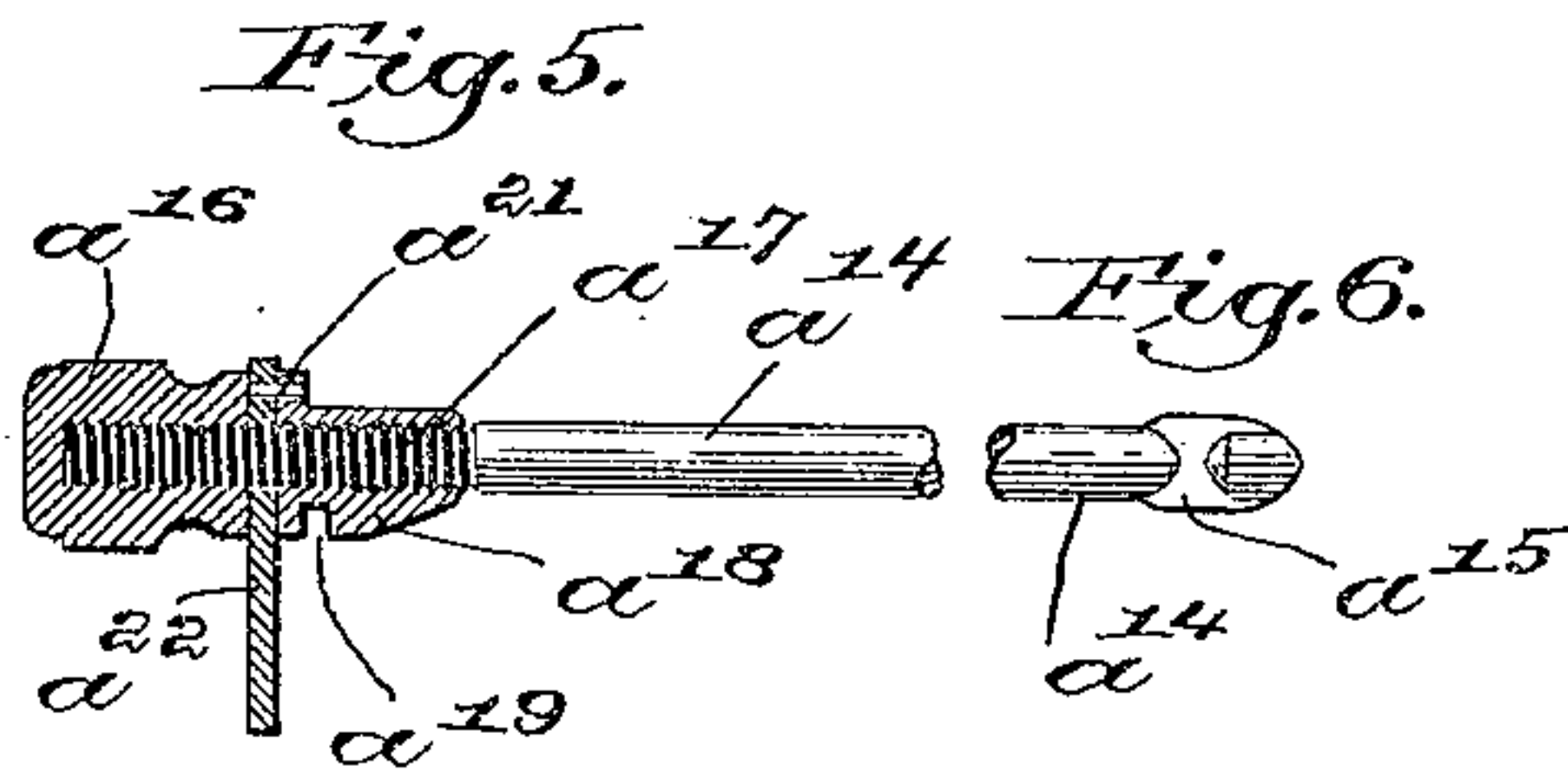
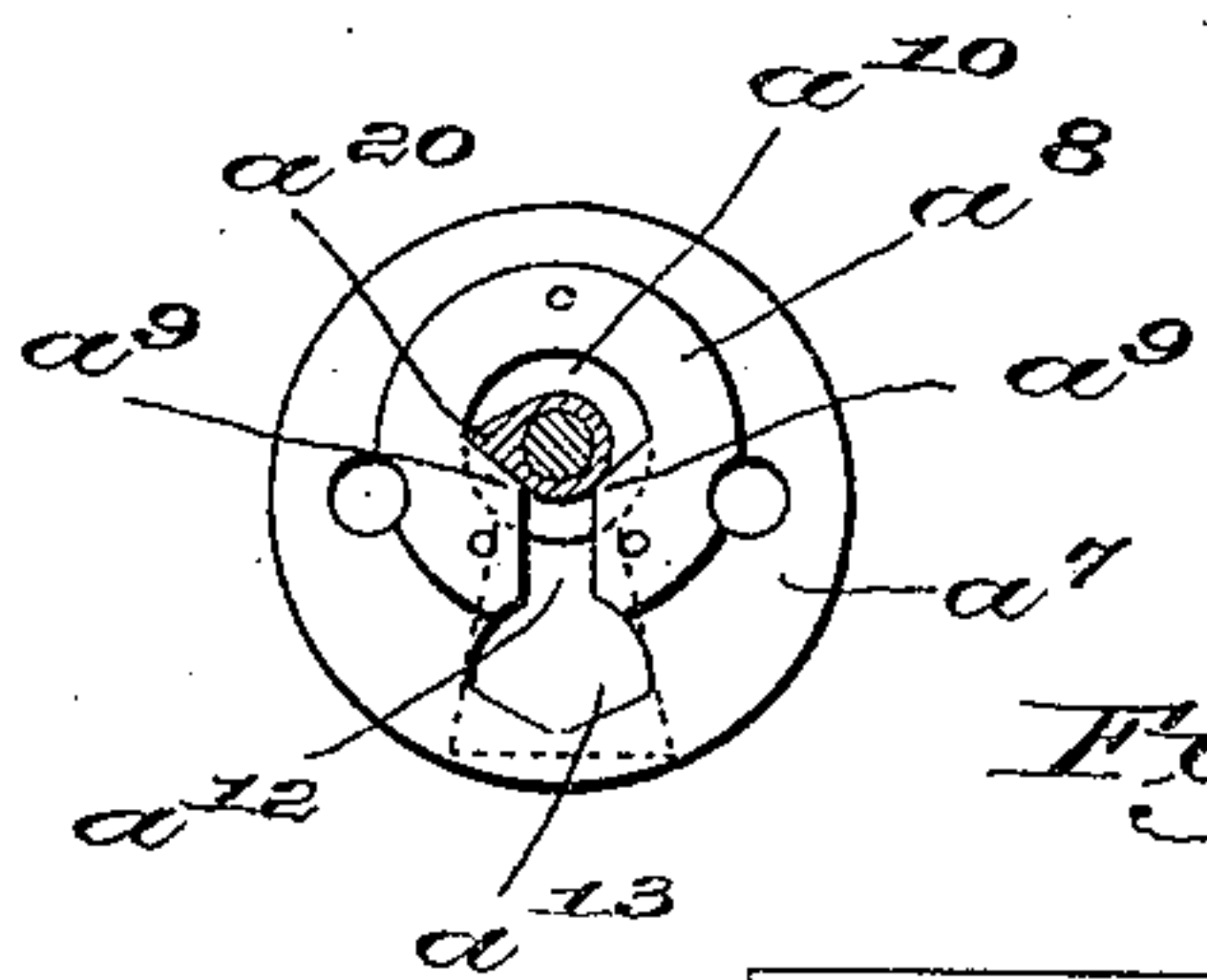
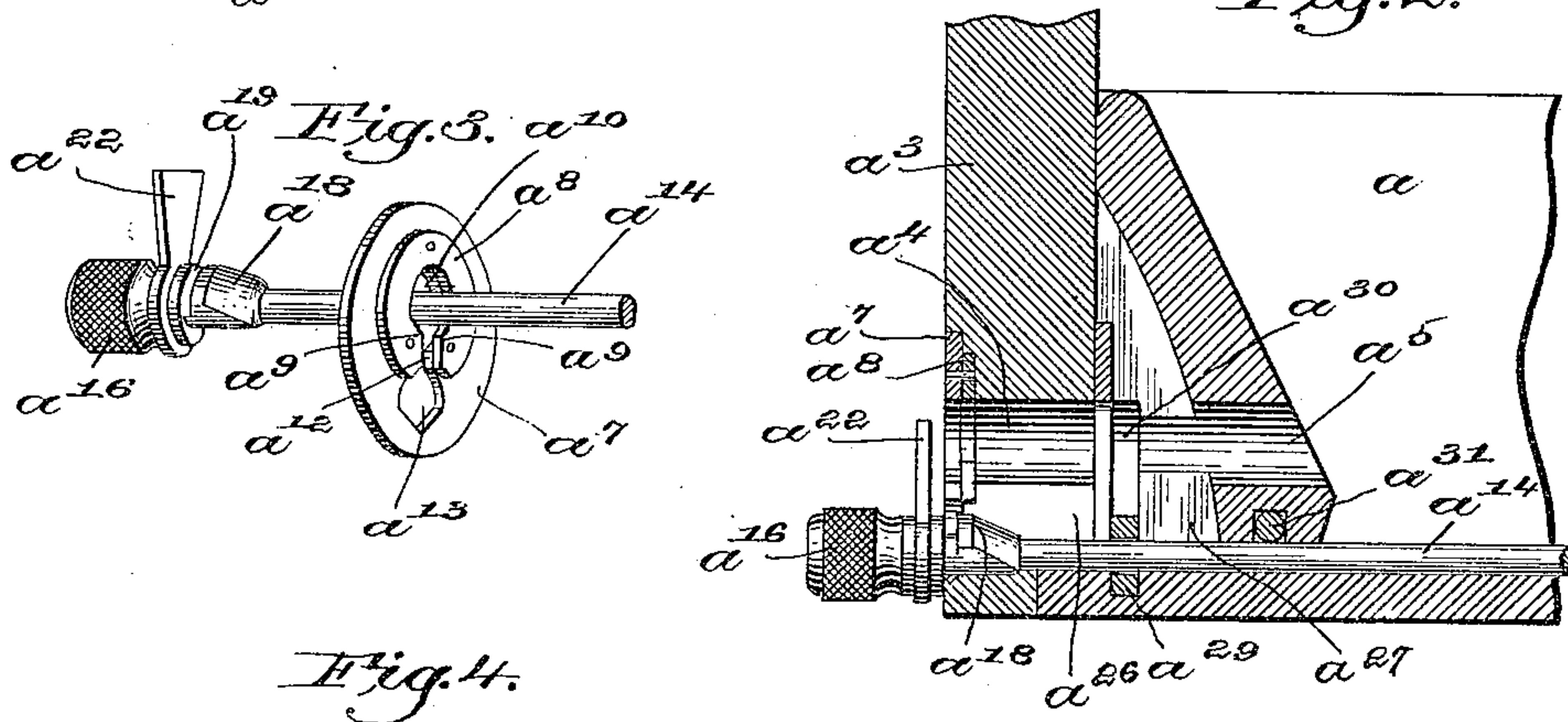
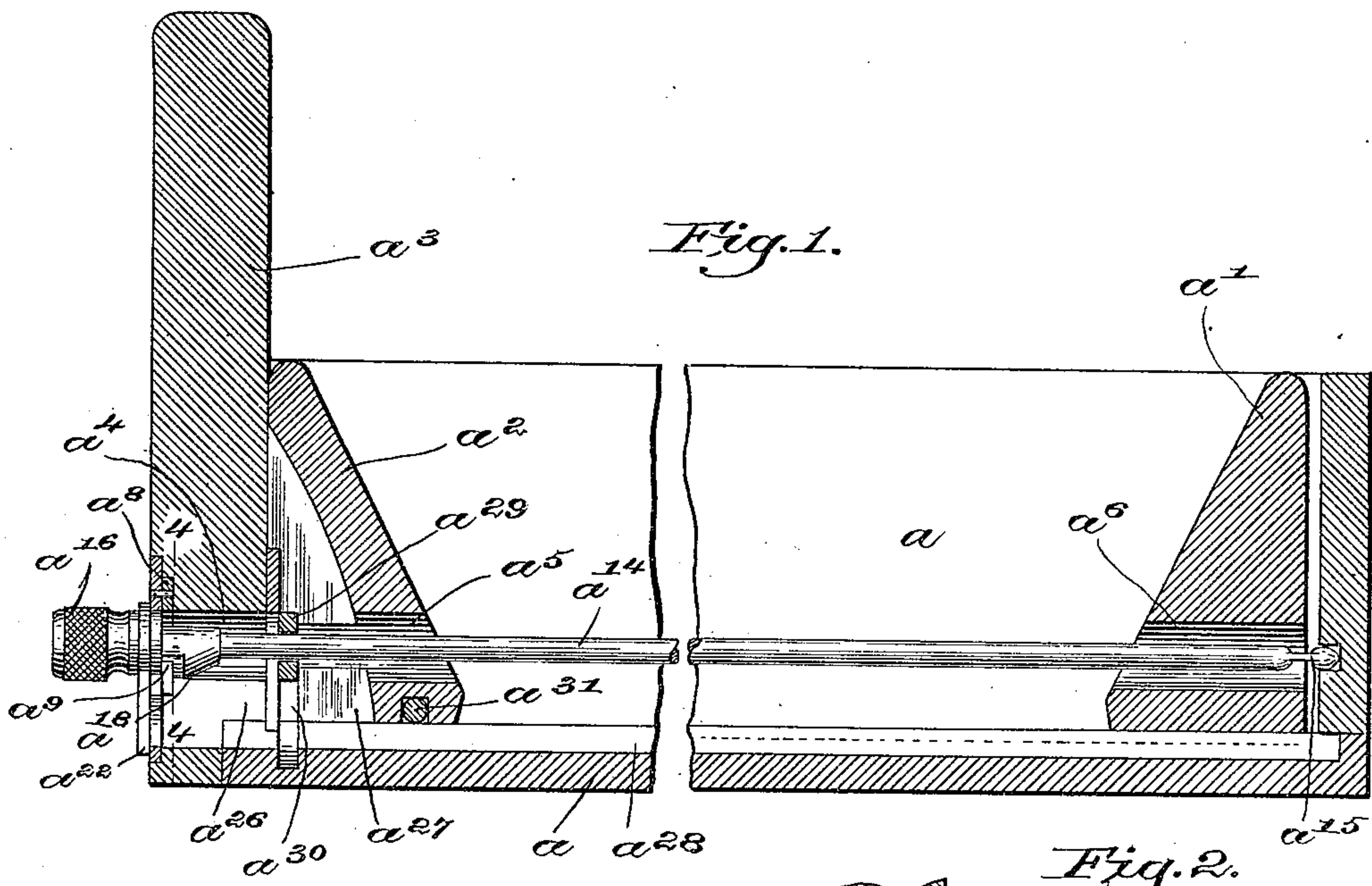
No. 658,738.

Patented Sept. 25, 1900.

D. E. HUNTER.
LOCK ROD FOR CARDS.

(Application filed Jan. 27, 1900.)

(No Model.)



Witnesses.
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UNITED STATES PATENT OFFICE.

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LOCK-ROD FOR CARDS.

SPECIFICATION forming part of Letters Patent No. 658,738, dated September 25, 1900.

Application filed January 27, 1900. Serial No. 2,939. (No model.)

To all whom it may concern:

Be it known that I, DAVID E. HUNTER, a citizen of the United States, residing at Cambridge, county of Middlesex, State of Massachusetts, have invented an Improvement in Lock-Rods for Cards, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 The present invention is an improvement in lock-rod receptacles for card-indexes, &c., and has for its object the provision of an exceedingly simple and inexpensive lock-rod capable of being locked in position to secure
15 the cards against unauthorized removal and also capable of being moved down into a cavity or recess in the bottom of the box, so as to be entirely out of any possible contact with the cards as the latter are being changed in
20 the box.

This lock-rod is of the "disappearing-lock-rod" kind, (as I have termed it in my United States Patent No. 638,017, dated November 28, 1899,) being non-removable from the box
25 and yet capable of being disengaged from the cards and sheathed or inclosed in a recess or cavity outside of the space normally occupied by the cards.

My present invention comprises a lock-rod
30 composed of a single wire, bar, or rod normally held against possible removal from the box by means of an enlargement at the inner end of the rod adapted to bear against a washer or other retaining device adjacent the
35 escutcheon end.

The further details of my invention and the construction of the latter, together with various advantages thereof, will be explained in the following description, and the invention will be more particularly set forth in the
40 appended claims.

In the drawings, Figure 1 is a central longitudinal vertical section of a drawer provided with my invention. Fig. 2 is a similar
45 section of a fragmentary portion of the left-hand end of Fig. 1, showing the lock-rod in its lowered or "disappearing" position. Fig. 3 is a perspective view of the lock-rod and co-operating escutcheon plate and lock, showing the latter from the rear side. Fig. 4 is a
50 cross-sectional view on the line 4 4, Fig. 1.

Fig. 5 is a longitudinal sectional view of the handle end of the lock-rod. Fig. 6 shows the rear end of the lock-rod in top plan. Fig. 7 is a rear elevation of the switch-plate.

55 In any drawer or box or card-receptacle a , which may be provided, as usual, with a follower-block a' and a front inclined block a^2 , adjacent the front a^3 of the box or card holder, I bore or provide an aperture a^4 through the front of the box and correspondingly aline
60 apertures a^5 a^6 in the blocks a' a^2 , and on the front of the box I secure a special escutcheon-plate a^7 , (shown in detail in Figs. 3 and 4,) said plate for economy of construction having
65 a plate a^8 secured on the back side thereof, so as to form projections a^9 at the bottom of a circular opening a^{10} in the escutcheon, said projections a^9 constituting stops to limit the rotary movement of the lock-rod proper
70 and also constituting locking-shoulders, as will be presently explained. From the opening a^{10} the escutcheon-plate has a slot a^{12} extending downwardly and provided with an enlarged aperture a^{13} at its lower end.

75 The lock-rod, as herein shown, consists of a single round wire a^{14} , although it will be understood that I do not limit myself in respect to the cross-sectional shape thereof. This rod at its inner end has an enlargement
80 a^{15} , said enlargement being herein shown as swaged thereon simply by one blow of a drop-hammer spreading the metal out laterally sufficiently for the purpose required, and at its other end said lock-rod is secured to a
85 handle or finger-grip a^{16} in any manner, as by threads a^{17} , and also secured on the outer end of the rod a^{14} is a peculiar locking-stamp or piece of metal comprising a hub a^{18} , substantially of the sector-shaped opening,
90 bound by the shoulders a^9 and the arc a^{10} , as shown in Fig. 4, said hub being capable of movement straight in and out of the opening shown below the reference-letter a^{10} in Fig. 4, and immediately behind said hub a^{18}
95 is a groove or notch a^{19} , adapted to fit over the lugs or shoulders a^9 , so that when the hub a^{18} is fully inserted behind said shoulders and the lock-rod is turned into the position shown in Figs. 4 and 5 said hub engages said
100 shoulders and holds the lock-rod in locked position. In order that it may not be rotated

too far, I provide a stop a^{20} in the groove a^{19} , which coöperates with the left-hand shoulder a^9 , Fig. 4. A circular boss a^{21} is at one side of the groove a^{19} , and beyond this I provide
 5 a tongue a^{22} for closing the opening a^{12} a^{13} when the lock-rod is in locked position. The said boss a^{21} fits the circular opening a^{10} in the plate a^7 .

It will be understood that the special details of construction shown and explained
 10 minutely above are preferred; but I do not limit myself thereto, said details and various other of the details herein described being provided for the sake of economy of manu-
 15 facture.

At the rear side of the front a^3 of the box I secure a switch-plate a^{23} , as shown in Fig. 6, where it will be seen that it has a switching-
 20 slot a^{24} and preferably has lugs a^{25} for holding into the wood of the bottom of the box.

Below the opening a^4 and also in the back of the block a^2 I form slots a^{26} a^{27} , and in the bottom of the box I form a chamber or recess
 25 a^{28} the same as the passage or way for the lock-rod shown in my before-mentioned patent, while on the rod a^{14} I mount a washer, ring, or plate a^{29} , preferably held for vertical
 30 movement in a slot a^{30} and constituting means for preventing the removal of the rod out to disengage the cards.

At the bottom of the block a^2 I provide a piece of wire a^{31} for the purpose of decreasing the friction and wear of the rod on said
 35 block, as it is essential that under no circumstances should the rod a^{14} be permitted to rise sufficiently to strike the bottom edges of the cards as it is being inserted in the sheath a^{28} .

In use the rod is pulled out from the position shown in Fig. 1 until the enlargement a^{15}
 40 strikes against the ring a^{29} , it being thereby prevented from further outward movement. The parts, however, in that position are free to drop, so as to bring the rod into aline-
 45 ment with the chamber a^{28} provided therefor, it being evident that the enlarged end a^{15} of the rod can drop in the slot a^{27} , the ring a^{29} sliding in the groove a^{30} and the adjacent
 50 part of the rod in the slots a^{24} , a^{26} , and a^{12} . The rod a^{14} is then shoved straight ahead until it is entirely retained and concealed in the recess a^{28} , the opening a^{13} of the escutcheon
 55 serving to receive the hub a^{18} , in which position the tongue a^{22} is upright, as shown in Fig. 3, closing the aperture in the escutcheon-plate. The cards having been readjusted or
 60 removed and others inserted, the operator then withdraws the rod from the bottom of the box until the enlargement a^{15} strikes against the ring a^{26} and then lifts the same
 into alinement with the openings a^5 a^6 and reinserts it in the cards in an obvious manner, the hub a^{18} being inserted in the upper opening of the escutcheon-plate and rotated to the
 65 right a half-turn, so as to lock the same over the shoulders a^9 , being stopped by the engagement of the projection a^{20} with one of

said shoulders, whereupon the cards are locked in the box and the rod is locked in holding position.

My object has been to simplify, improve, and cheapen the construction shown in my Patent No. 638,017 above mentioned, and I have succeeded in providing in a single rod
 75 a mechanism carrying out the broad features of operation and the general principles of my previous invention, while at the same time greatly simplifying the various parts thereof and materially reducing the cost of manu-
 80 facture. In the specific construction shown in my aforesaid patent it is necessary to bend a holding-rod and otherwise manipulate the same, thereby requiring extra machine and
 85 hand labor, and also considerable fitting of parts is required, milling, &c., whereas all this is done away with in my present invention.

I do not herein claim, broadly, the provision of coöperating lugs and stops in a two-hole escutcheon nor the provision in connection with a disappearing lock-rod of upper
 90 and lower connected openings in the front of the box for accommodating the movement of the rod, as said general improvements are claimed in my aforesaid patent, as is also, broadly, the disappearing lock-rod construction
 95 itself, of which generic invention my present invention is an improvement and simplification. On the other hand, my present invention is capable of considerable variation in details of construction and form
 100 and arrangement of parts without departing from the spirit and scope of my present invention as defined in the appended claims.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a card holder or box, a lock-rod consisting of a single bar or longitudinally-extending member, and coöperating means in
 110 the box and on the rod for preventing removal of the latter from the box, said box having upper and lower passages or ways permitting longitudinal movement of said rod in either of them.

2. In a card holder or box, a lock-rod extending longitudinally of the box, an enlargement at the inner end of said rod, and a device
 115 slidingly mounted on said rod within the box and against which said enlargement abuts, for preventing the removal of the rod from the box.

3. In a card holder or box, a lock-rod extending longitudinally of the box, an enlargement at the inner end of said rod, and a device slidingly mounted on said rod, and means
 125 retaining said device at the front of the box, said enlargement striking against said device in the operation of the rod, for preventing removal of the latter from the box.

4. In a card-holder, a lock-rod consisting of
 130 a single longitudinal wire or member having at its forward end a handle extending outside of the front of the holder and at its rear end a flattened or swaged enlargement.

5. In a card-holder, a lock-rod having secured at its outer end an angularly-shaped hub, and a groove adjacent said hub, said holder having a plate provided with an aperture to receive said hub, and a shoulder or lug to enter said groove, said hub and rod being rotatable in unison, and said hub upon rotation engaging behind said lug to lock said rod in retained position, and a stop adjacent said hub located in said groove cooperating with said lug for limiting the rotary movement of said rod.

6. In a card-holder, a lock-rod movable longitudinally thereof consisting of a single wire or longitudinally-extending part, and an enlargement at the inner end thereof, said holder having an aperture through its front

end for the longitudinal movement of said rod, a plate having a vertical switching-slot secured in said front end, a longitudinal way in the bottom of said holder, a vertical slot in the front of the holder communicating with said aperture and said way and in alinement with said switching-slot, and means cooperating with said enlarged end of the rod for preventing removal thereof from the holder.

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

DAVID E. HUNTER.

Witnesses:

GEO. H. MAXWELL,
GEO. W. GREGORY.