

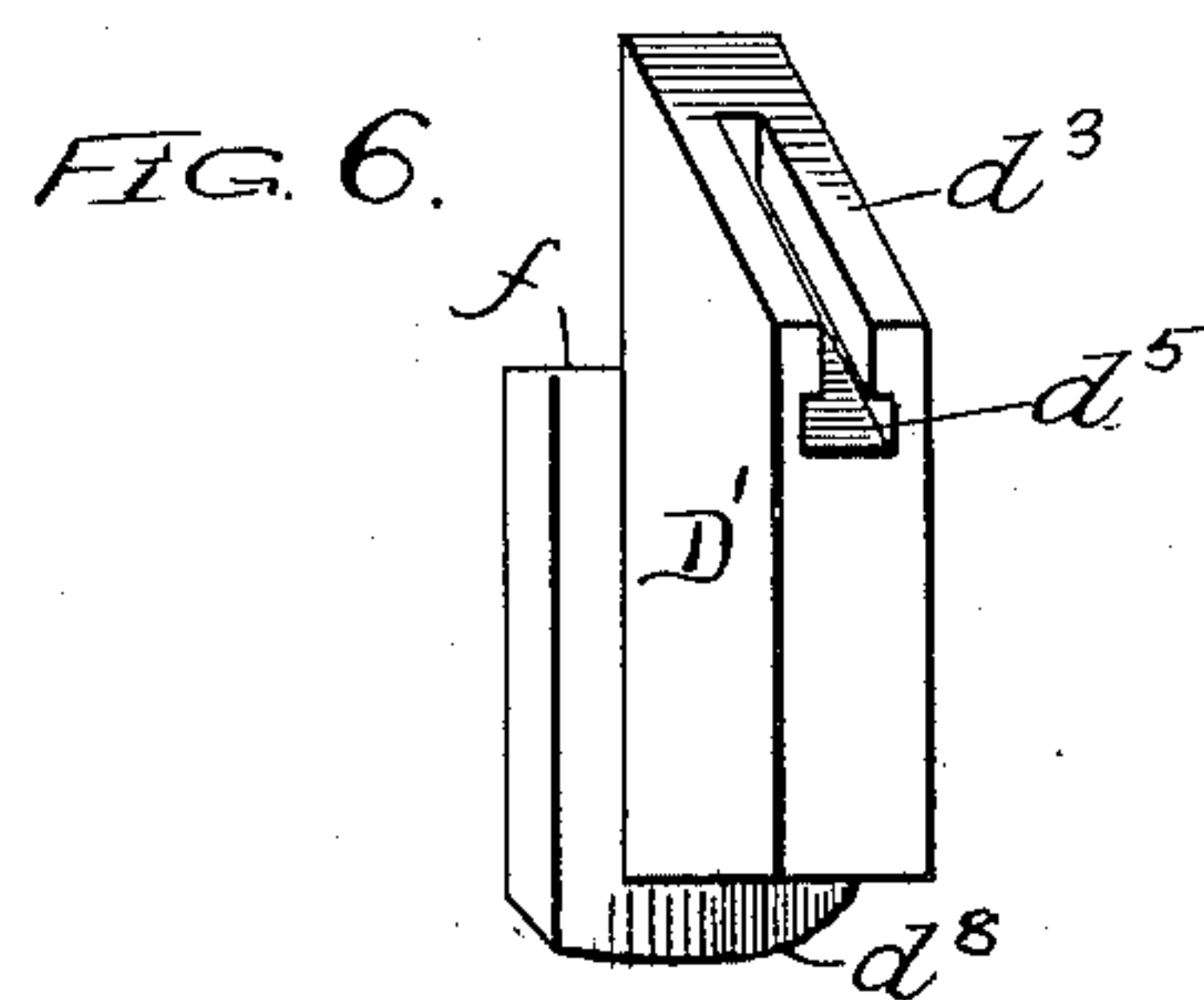
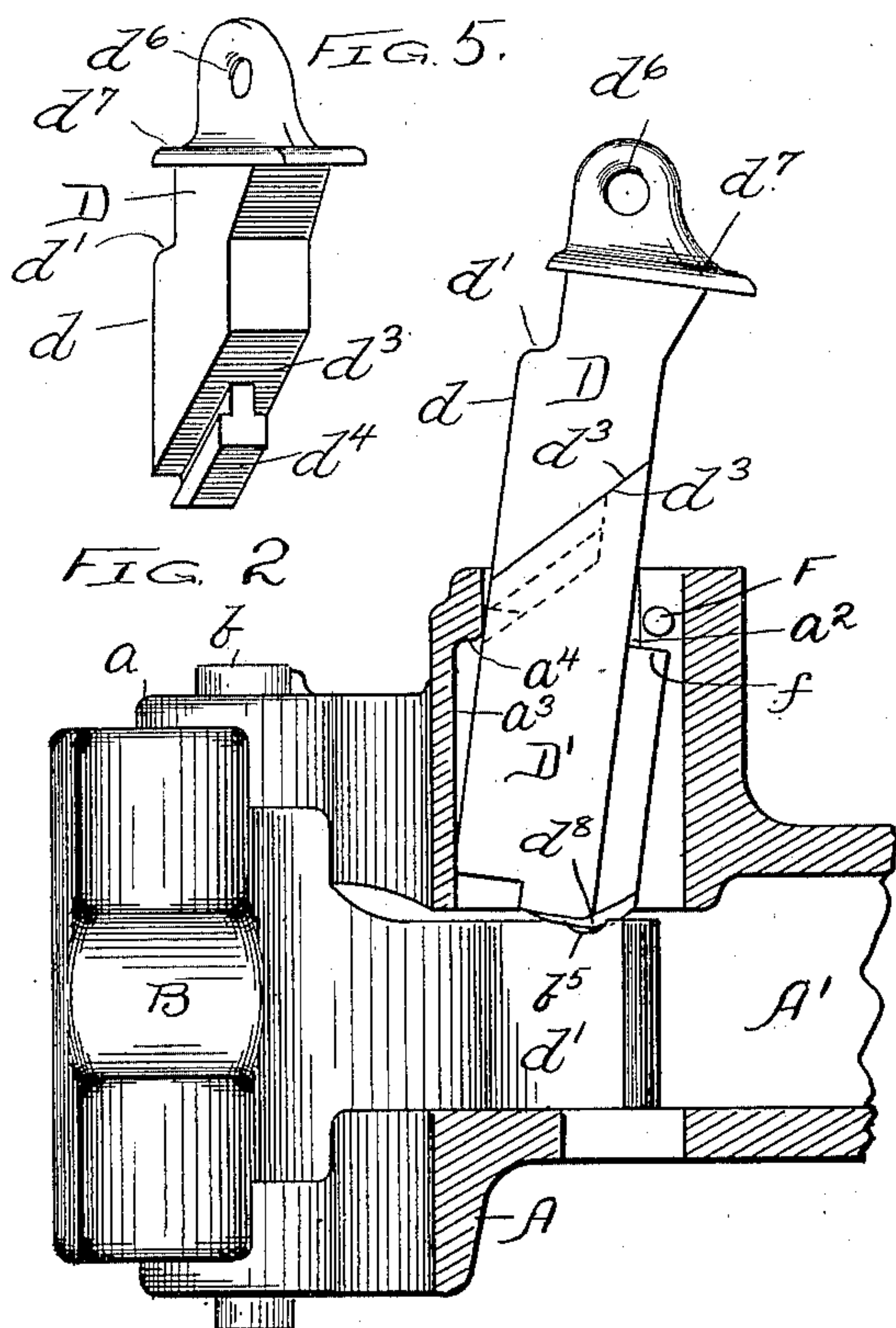
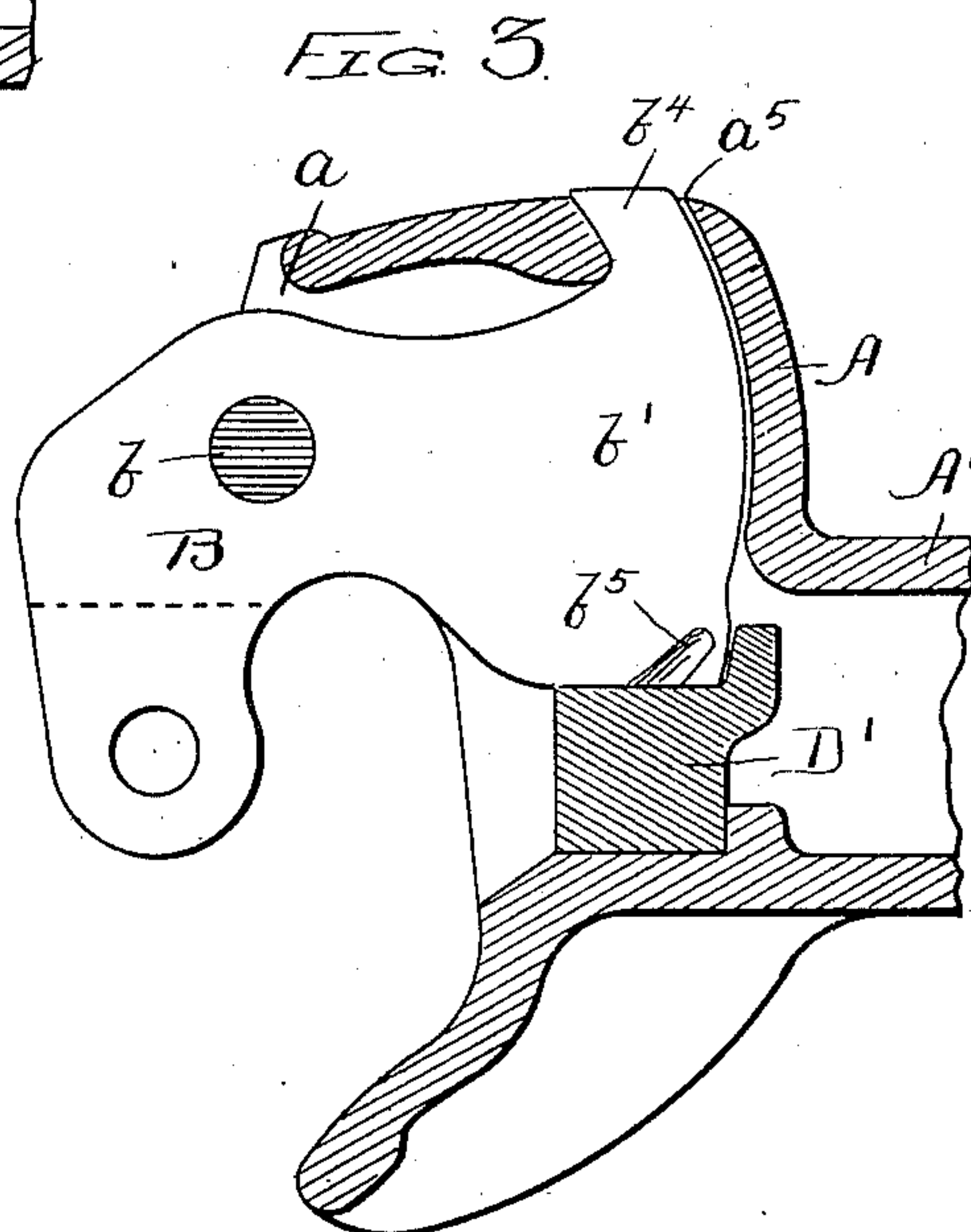
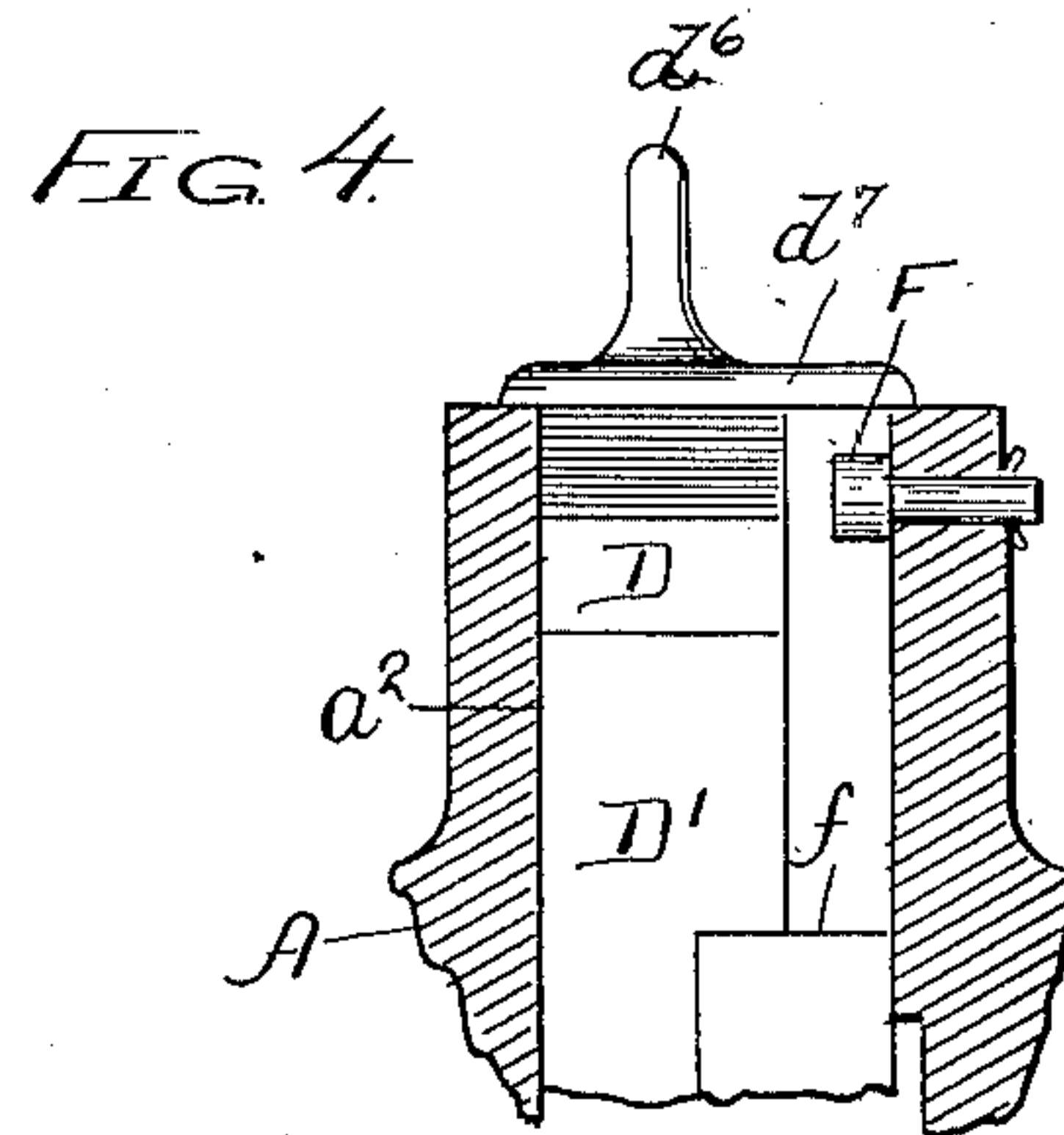
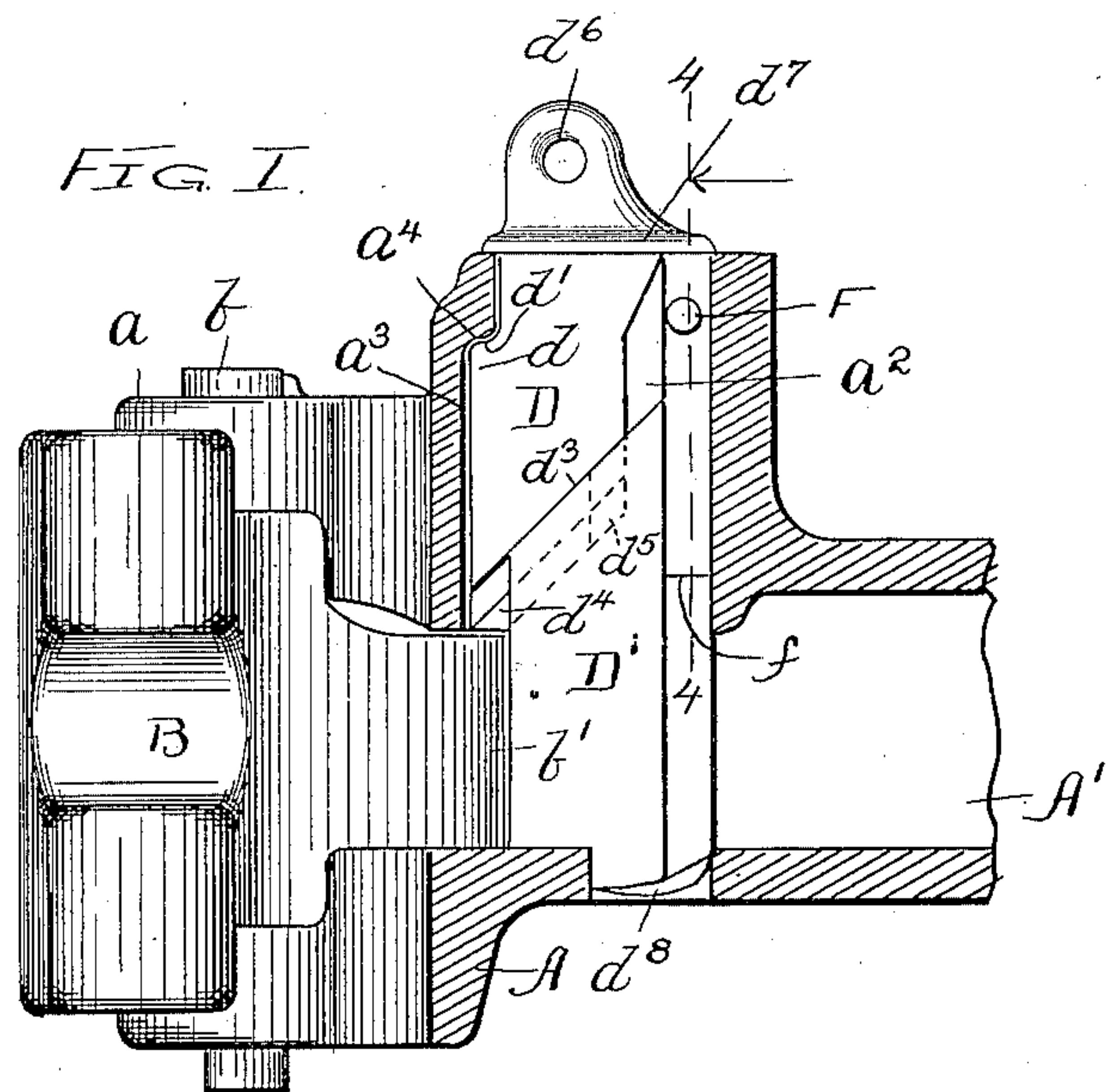
No. 656,824.

Patented Aug. 28, 1900.

J. MUNTON.
AUTOMATIC CAR COUPLING.

(Application filed May 10, 1899.)

(No Model.)



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JAMES MUNTUN, OF MAYWOOD, ILLINOIS.

AUTOMATIC CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 656,824, dated August 28, 1900.

Application filed May 10, 1899; Serial No. 716,211. (No model.)

To all whom it may concern:

Be it known that I, JAMES MUNTUN, a citizen of the United States, residing in Maywood, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Automatic Couplers for Railway-Cars, of which the following is a specification.

My invention relates to automatic couplers for railway-cars, and more particularly to improvements upon the automatic car-coupler heretofore patented to me in United States Letters Patent No. 612,051, of October 11, 1898.

The object of my present improvement is to simplify and perfect the construction and operation of my said patented car-coupler and provide a simple, strong, efficient, and durable construction of automatic car-coupler in which the gravity locking block or pin by which the knuckle of the coupler is held in its closed or coupled position may be absolutely prevented from jumping or creeping upward while the train is in motion and in which also the locking block or pin may be set to automatically uncouple when the cars of the train are pulled apart.

My invention consists, in connection with the draw-head and pivoted knuckle of the coupler and the two-part gravity locking-pin, having an inclined or wedging connection between the two parts, in providing the locking-pin with a shoulder or projection adapted to engage a corresponding shoulder, ledge, or projection on the draw-head, and thus prevent any upward movement of the lower part or member of the locking-pin by reason of the inclined or wedging connection between the two members of the pin forcing the upper member thereof, which carries said shoulder or projection, under the ledge or shoulder on the draw-head. It further consists in providing the lower member of the two-part locking-pin with a projection at the lower end thereof adapted to engage the rear forward corner of the tail of the knuckle when the lock is lifted and slightly tilted forward, and thus set the lock to permit the opening of the knuckle or uncoupling of the cars when the cars are subsequently pulled apart.

It further consists in the novel construction of parts and devices and in the novel combi-

nation of parts and devices herein shown and described, and specified in the claims.

In the accompanying drawings, forming a part of this specification, and in which similar letters of reference indicate like parts in all the views, Figure 1 is a vertical central section of an automatic car-coupler embodying my invention. Fig. 2 is a similar view showing the two-part gravity locking-pin lifted to permit the knuckle of the coupler to open. Fig. 3 is a horizontal section on line 3 3 of Fig. 1. Fig. 4 is a transverse vertical section on line 4 4 of Fig. 1. Figs. 5 and 6 are detail perspective views of the upper and lower parts or members of the two-part gravity locking-pin.

In said drawings, A is the forked draw-head of the coupler, and A' the draw-bar.

B is the knuckle, pivoted by the pin *b* to the pivot-arm *a* of the forked draw-head.

D D' show the two-part gravity locking pin or block, against which the tail *b'* of the knuckle impinges when the coupler is closed and by which the coupler is held closed. The locking pin or block D D' is adapted to move up and down in a vertical passage-way or opening *a²*, formed in the central part of the draw-head. This passage-way or opening *a²* is provided at one side, preferably the front side, with an enlargement *a³*, forming a shoulder or inclined ledge *a⁴* to receive the corresponding projection or enlargement *d* on the upper part or member D of the locking-pin, so that the shoulder *d'* of said projection or enlargement *d* engaging the shoulder *a⁴* in the wall of the draw-head will prevent the locking-pin from moving, jumping, or creeping upward. The inclined or wedging connection or meeting faces *d³ d³* of the two parts D D' of the locking-pin causes the upper member D to be wedged or forced out, so that the shoulder *d'* of the locking-pin engages the shoulder *a⁴* of the draw-head when any force is exerted to lift the lower member or part D' of the locking-pin. To cause the lower member of the locking-pin to be lifted with the upper part or member thereof, the upper part or member is provided with a head *d⁴*, fitting in the corresponding slot or socket *d⁵* in the lower member of the locking-pin.

The upper member D of the locking-pin is

provided with an eye d^6 and flange d^7 , the lifting chain or link by which the locking-pin is lifted to permit the uncoupling of the cars being connected to the eye d^6 . The tail b' of the knuckle B is provided with a projecting arm or hook b^4 , that projects into a recess, slot, or opening a^5 in the pivot-arm of the draw-head, so that this hook or projection engaging the wall of the draw-head may relieve the pivot-pin from strain and also prevent the cars from coming uncoupled in case the pivot-pin should by any accident or oversight be removed or become broken. The rear arm or tail b' of the knuckle B is further provided with a groove b^5 to receive a ledge or projection d^8 on the lower member of the locking-pin, and thus automatically hold the locking-pin in its elevated position, as required, to permit the cars to automatically couple by simply running or bumping them together. As the cars are run or bumped together the open knuckles B on the two opposing couplers engaging each other and the guard-arm of the draw-head are automatically closed, thus causing the projection d^8 on the lower member of the locking-pin to ride off of the rear corner of the tail of the knuckle. By reason of the projection d^8 fitting in the groove b^5 all danger of the locking-pin becoming accidentally jolted off of the tail of the knuckle, and thus permitting the locking-pin to drop and thereby prevent the closing of the knuckle, is prevented.

The eye d^6 of the locking-pin is located slightly forward of the central line of the locking-pin, so that when the locking-pin is lifted by the chain or link connected with said eye the locking-pin will be canted or tilted slightly forward, as indicated in Fig. 2, and thus cause the projection d^8 to engage the groove b^5 on the tail of the knuckle. The inclined sliding connection between the lower and upper members of the locking-pin also facilitates this operation.

By this means I am enabled to produce an exceedingly simple, strong, durable, and efficient automatic coupler, the parts of which are not liable to get out of order, which may be cheaply manufactured, and in which the locking pin or block is effectively locked or prevented from creeping or jumping upward, and thus permitting the cars to become accidentally uncoupled when the train is in motion. To prevent the locking-pin being entirely lifted out of the draw-head, a pin or projection F in the wall of the draw-head en-

gages a shoulder f on the lower member of the locking-pin.

I claim—

1. In an automatic car-coupler, the combination with a pivoted knuckle, of a forked draw-head having a passage-way for a gravity locking pin or block, furnished with a shoulder or ledge to engage a corresponding shoulder or ledge on the locking pin or block, and a gravity locking pin or block composed of two parts or members having a wedging or inclined connection between the two, the upper part or member of said locking pin or block having a shoulder or projection adapted to fit under and engage said shoulder or ledge on the draw-head, substantially as specified.

2. In an automatic car-coupler, the combination with a pivoted knuckle, of a forked draw-head having a passage-way for a gravity locking pin or block, furnished with a shoulder or ledge to engage a corresponding shoulder or ledge on the locking pin or block and a gravity locking pin or block composed of two parts or members having a wedging or inclined connection between the two, the upper part or member of said locking pin or block having a shoulder or projection adapted to fit under and engage said shoulder or ledge on the draw-head, the lower part or member of said locking-pin having a projection at its lower end adapted to engage the forward rear corner of the tail of the knuckle when the lock is lifted and tilted forward, thus forming the lock-set, substantially as specified.

3. In an automatic car-coupler, the combination with a forked draw-head having a recess in its pivot-arm forming a shoulder or ledge for engagement with a hook on the knuckle-tail, of a pivoted knuckle having a hook or projection on its tail adapted to fit against said shoulder or ledge in the pivot-arm of the draw-head, and a two-part wedge-acting locking pin or block adapted to be lifted freely by its upper member, and incapable of being moved upward by force applied to its lower member, the upper member of said locking-pin having a shoulder or projection fitting under and adapted to engage a shoulder or ledge on the draw-head, substantially as specified.

JAMES MUNTUN.

Witnesses:

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