

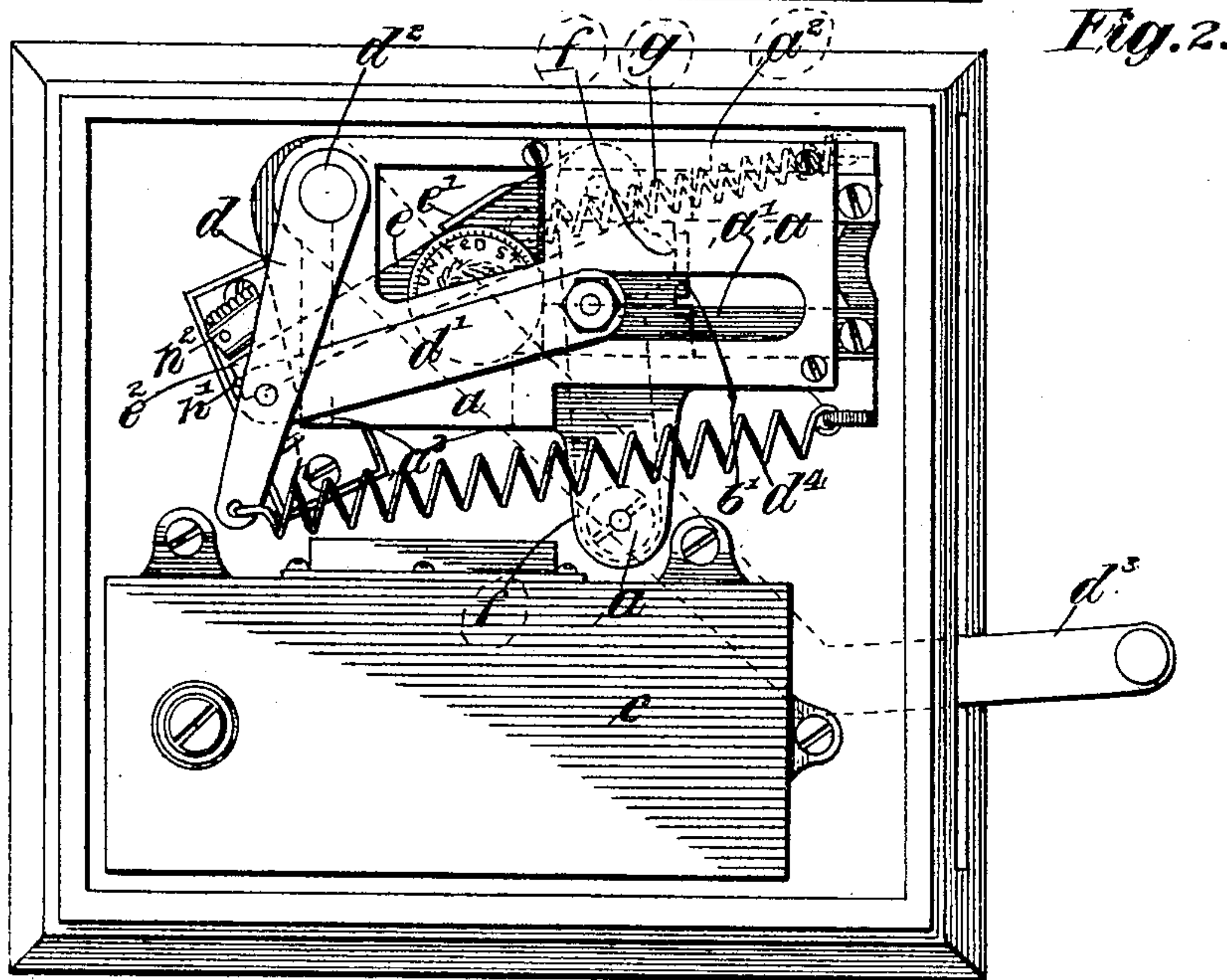
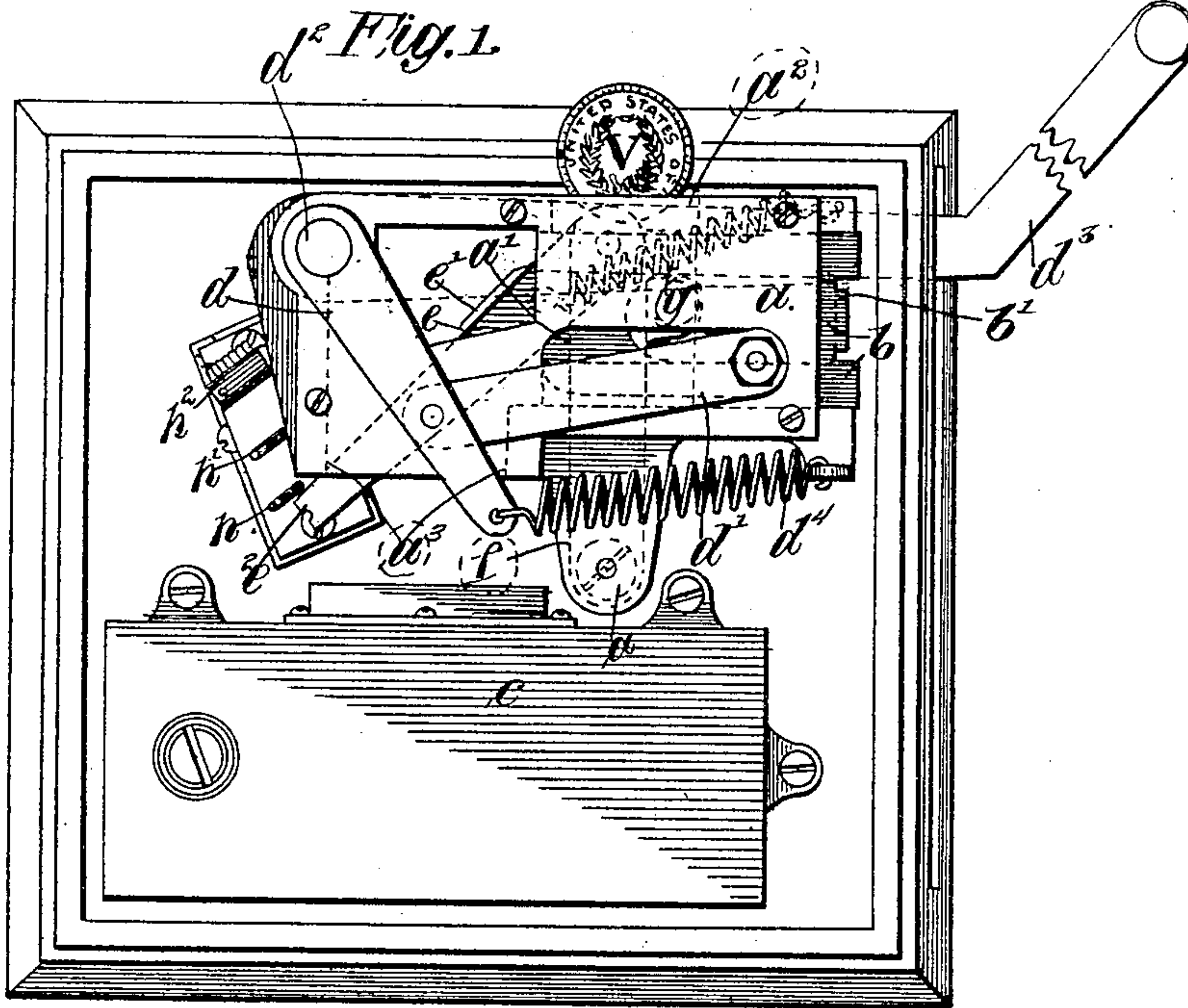
No. 795,407.

PATENTED JULY 25, 1905.

F. R. MoBERTY.
COIN COLLECTOR.

APPLICATION FILED MAR. 16, 1903.

2 SHEETS--SHEET 1.



Witnesses:

O. M. Vermick
H. A. Leach

Inventor:
Frank R. Mc.Berty.

By Ernest R. Barton
Atty

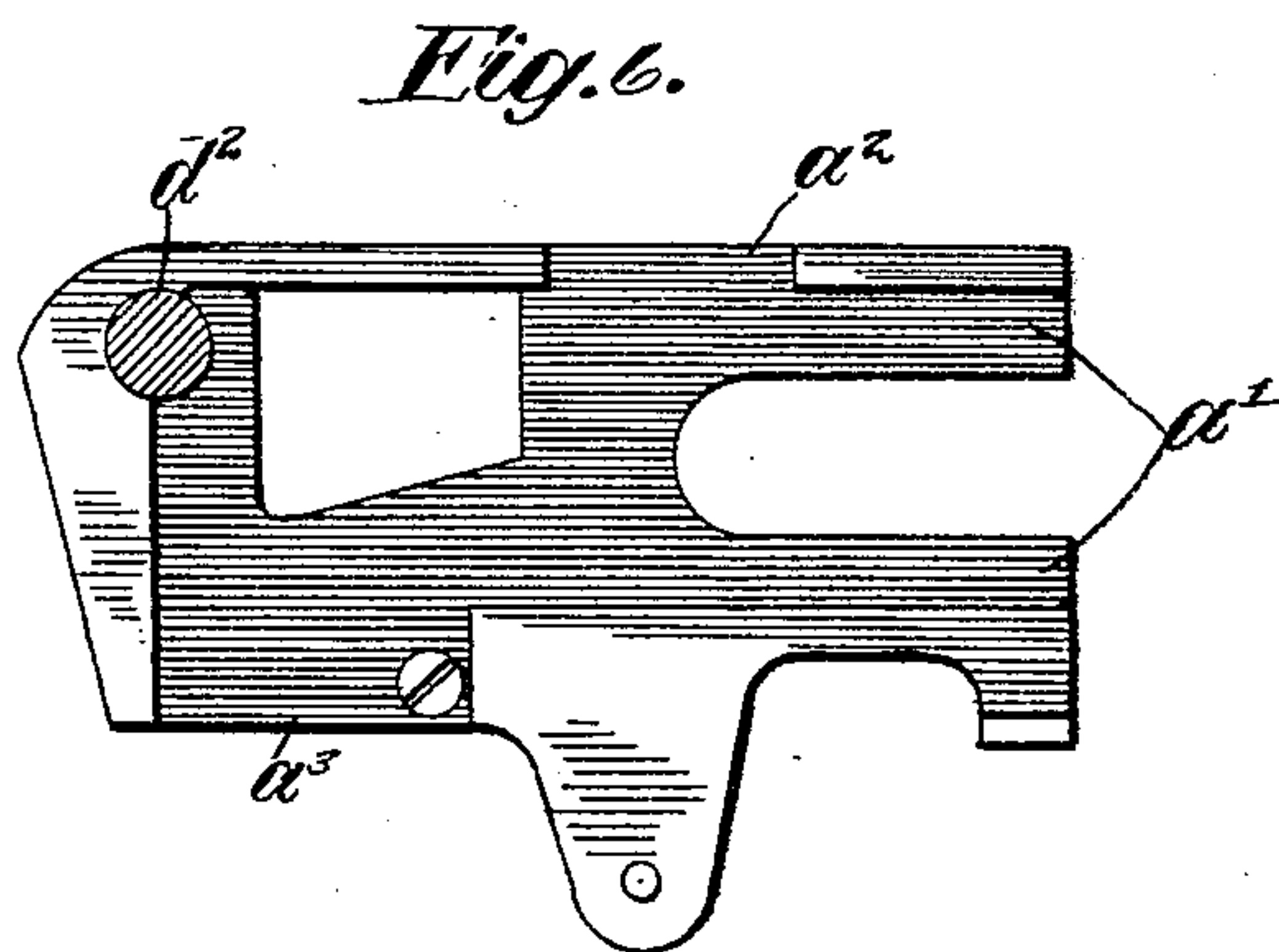
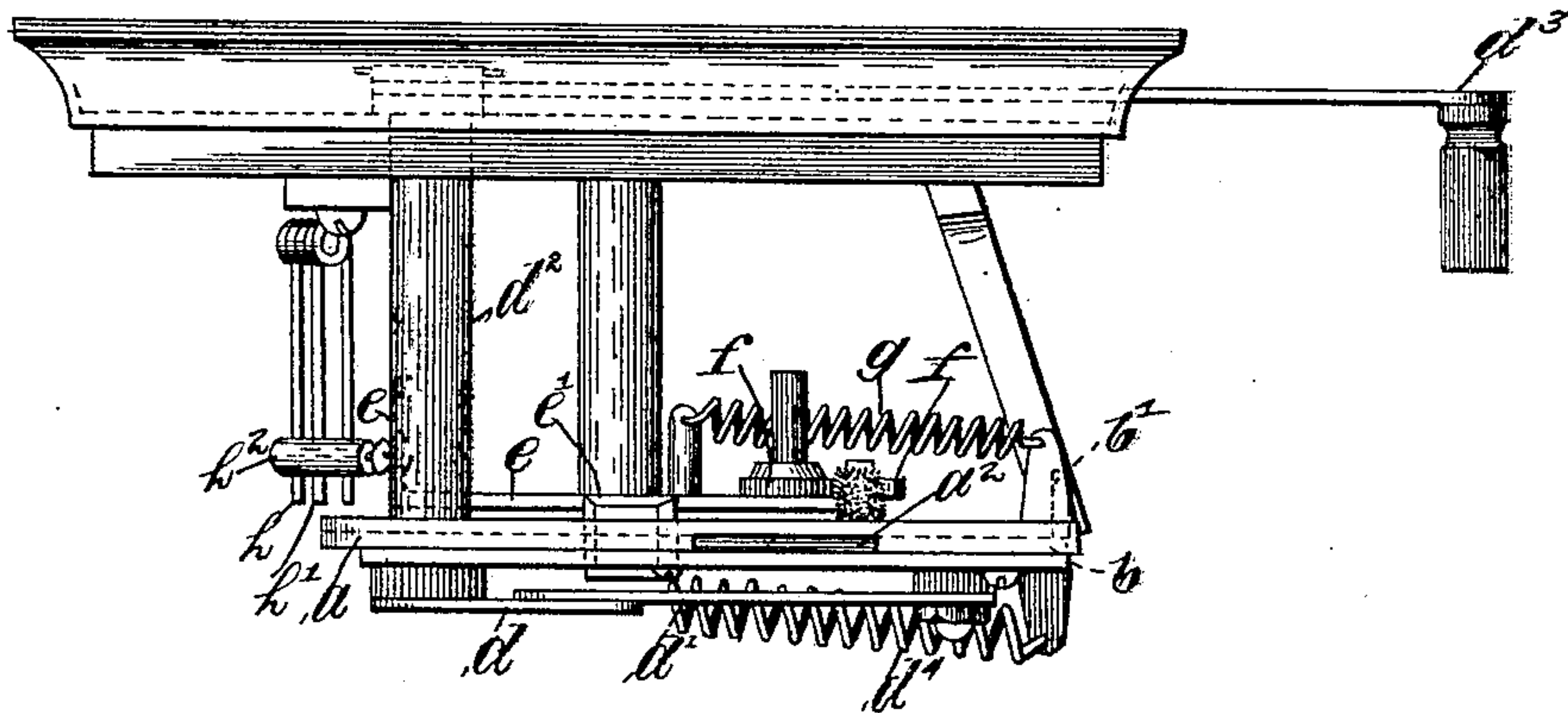
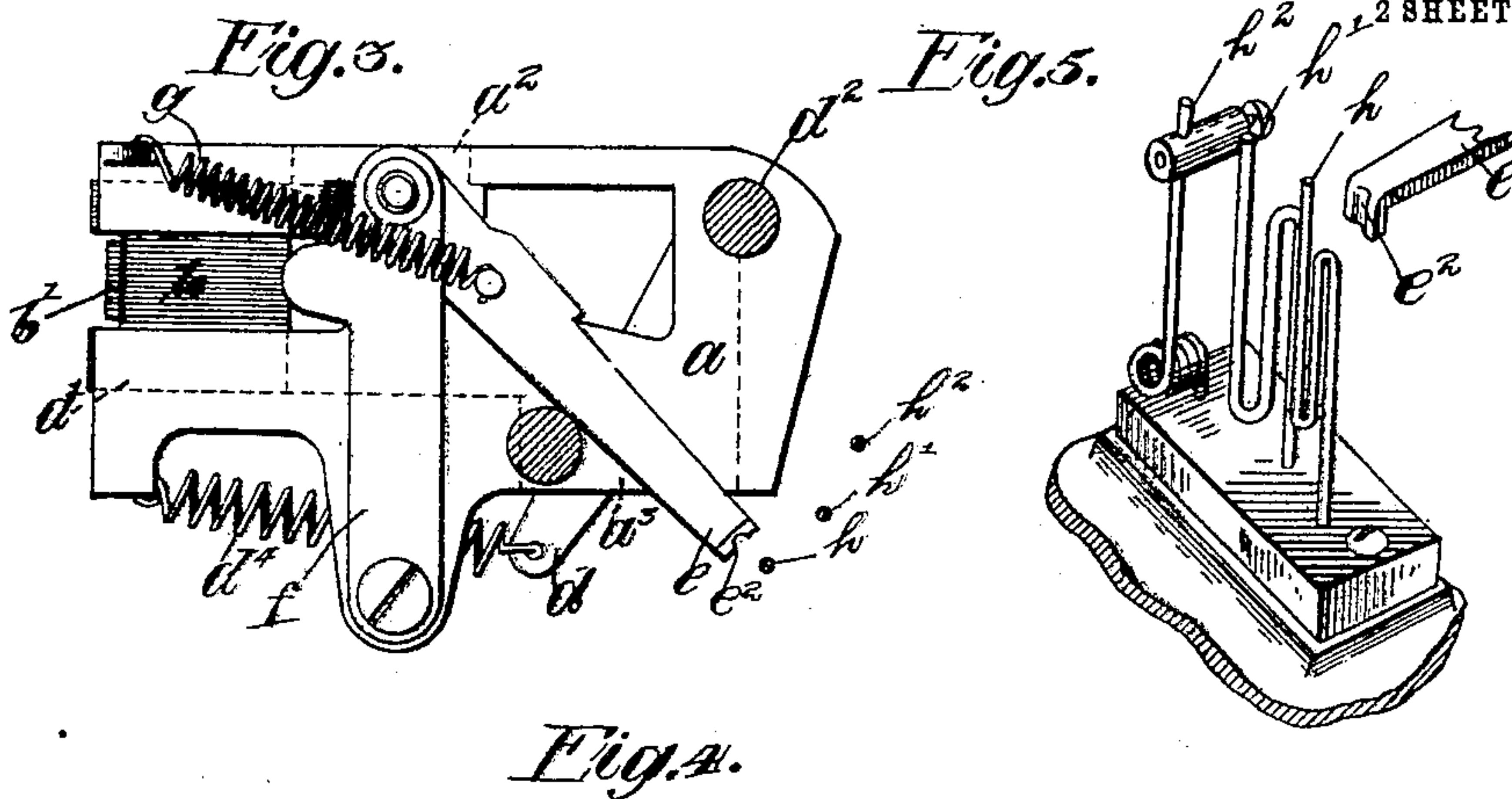
No. 795,407.

PATENTED JULY 25, 1905.

F. R. McBERTY.
COIN COLLECTOR.

APPLICATION FILED MAR. 16, 1903.

2 SHEETS—SHEET 2.



Witnesses:

O. M. Vermich
W. H. Leach.

Inventor:
Frank R. McBerly.

By *Samuel P. Barton*
Atty

UNITED STATES PATENT OFFICE.

FRANK R. McBERTY, OF EVANSTON, ILLINOIS, ASSIGNOR TO WESTERN ELECTRIC COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

COIN-COLLECTOR.

No. 795,407.

Specification of Letters Patent.

Patented July 25, 1905.

Application filed March 16, 1903. Serial No. 147,903.

To all whom it may concern:

Be it known that I, FRANK R. McBERTY, a citizen of the United States, residing at Evanston, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Coin-Collectors, of which the following is a full, clear, concise, and exact description.

My invention relates to a coin-collector, more particularly for the substations of telephone-exchanges; and its object is to provide a simple and compact structure in which the actuation of a signal may be made dependent upon the diameter of a deposited coin, so that the operator at the distant central office will have a check upon the subscriber to determine whether a coin of the requisite value has been deposited.

In my coin-collector the diameter of the coin determines the character of the signal transmitted, and I will describe the preferred structure by which this result is accomplished by reference to the accompanying drawings.

The features or combinations which I regard as novel will be set forth in general terms in the appended claims.

In the drawings, Figure 1 is a view in elevation of the mechanism of my improved coin-collector, the cover of the containing-box being removed. Fig. 2 is a similar view showing an alternative position of the parts. Fig. 3 is a rear elevation of the coin-distributing mechanism partially in section. Fig. 4 is a plan view. Fig. 5 is a detail perspective view of the signal devices; and Fig. 6 is a detail view of the frame-plate in which the coin-guideway is provided, the outer face-plate being removed.

The same letters of reference are used to designate the same parts wherever they are shown.

The framework *a* of the temporary receiver is provided with a substantially horizontal guideway or passage *a'*, forming a coin-channel. The mouth of said channel, in which deposited coins are received, is shown at *a²*, and a discharge-opening *a³* is provided in the bottom of the guideway longitudinally displaced with relation to the receiving-mouth. A pusher *b* is arranged to slide to and fro in the guideway *a'*. This pusher normally rests behind the receiving-mouth and is adapted to be advanced, as

shown in Fig. 2, sliding along the guideway to engage the deposited coin and push the same along the guideway to the discharge-opening. A cash-box *c* is arranged to receive coins falling from the discharge-opening of the guideway. The mechanism for reciprocating said pusher consists of a crank *d*, connected to said pusher by a pitman *d'*. The crank is mounted at one end to a rocking shaft *d²*, which is adapted to be turned by the crank *d³*, projecting at the side of the box. A spring *d⁴*, attached at one end to the crank *d* and anchored at the other end to the framework *a*, yieldingly maintains the pusher *b* in its retracted position, as shown in Fig. 1.

A combined caliper and actuating-lever arm *e* is associated with the coin-guideway *a'* and is provided with a caliper portion *e'*, which projects into said guideway in the path of a coin forced along the same by the pusher. The arm is yieldingly or adjustably mounted, being shown pivoted, so as to be capable of lateral or angular adjustment, and the support for said lever is movable. In the device shown the lever is pivoted to the upper end of a supporting-arm *f*, the lower end of which is in turn pivoted to the framework *a*.

The pusher *b* carries a lug *b'*, which is adapted to engage the arm *f* and advance the same, together with the lever *e*, in the movement of said pusher. The pusher is advanced a considerable distance before the lug *b'* causes any movement of the arm *f*. A spring *g*, fastened at one end to a stud carried by the lever *e* and anchored at the other end to the framework *a*, serves to hold the lever *e* normally depressed and retracted.

A number of signal devices, which I have shown as vibrating reeds *h h' h²*, are mounted in position to be engaged by the end of the actuating-lever *e* when said lever is advanced, the particular reed or signal device to be actuated being selected by the degree of angular displacement or adjustment of the lever-arm *e* when it is advanced, this adjustment depending upon the size of the coin engaged by the caliper portion of said lever. Each of said reeds is adapted to give a distinctive tone. In practice the subscriber's telephone-transmitter would be mounted in proximity to or upon the same base-plate with the coin-collector, so that when either of the reeds is sounded the tone would be heard by the central-office operator in her

telephone. It is understood of course that other signaling instruments beside the particular reeds shown may be adopted.

The operation of the device is as follows: When the subscriber in response to a request from the operator for a coin of a certain value deposits such a coin in the toll-box, it falls through the mouth a^2 into the coin-chute a' . The subscriber then pulls down the crank d^3 , whereby the coin is moved along said guideway by the pusher and finally discharged through the opening a^3 into the cash-box c , while at the same time if the coin is of proper size one or the other of the signal-reeds h h' h^2 will have been set in vibration to transmit a characteristic tone indicating to the operator the size of the coin which has been deposited. When the coin is in the guideway a' , as the pusher b is advanced the coin is forced into engagement with the caliper portion e' of the lever e , whereby the lever is raised to a definite angular position dependent upon the diameter of the coin. For example, if a ten-cent piece is deposited the lever will be raised until the end e^2 thereof is brought into operative alinement with the first reed h . If the coin instead of being a dime is a five-cent nickel, which is of greater diameter, the lever e will be raised still further until the end e^2 thereof is in alinement with the reed h' . In the same way a twenty-five-cent piece will serve to raise the lever still further into alinement with the third reed h^2 . If a coin of intermediate size—as, for example, a cent—is placed in the chute, the lever will not be in alinement with either of the reeds. As the pusher moves forward, then the coin is thus calipered and determines the adjustment of the actuating-lever e , and then as the pusher continues to advance the lug b' , carried thereby, strikes a portion of the movable supporting-arm f , whereby the lever is advanced in its adjusted position so that the end of said lever strikes the particular reed with which it has previously been brought into alinement. If a coin of intermediate size not designed to be used in the apparatus is deposited, the arm will not strike either of the reeds, and so will not transmit any signal. As the arm is advanced, the laterally-projecting end e^2 thereof slides over the end of the reed, so putting the reed under tension until finally the reed slips past and is set in vibration to produce the tone.

It will be noted that if it is attempted to defraud the device by having a string attached to the coin such string will be cut off by the sharp forward edge of the pusher as it is advanced in the guideway a' past the edge of the receiving-mouth a^2 .

I claim—

1. The combination with a coin-collector having a coin-guideway and means for pass-

ing a coin through the same, of a signal instrument, an actuating-lever therefor, a movable support for said lever upon which the same is adjustably mounted, said support being arranged to move the lever longitudinally to actuate said signal instrument, and a caliper portion connected with said lever adapted to be engaged by a coin in the guideway to adjust the lever to a definite lateral position preliminary to the actuating movement thereof, according to the diameter of said coin.

2. In a coin-collector, the combination with a temporary receiver having a coin-guideway, of a combined caliper and actuating-lever adapted to be adjusted by a coin passed through said guideway, a signal device operated in the advance movement of said lever from its adjusted position, and a pusher arranged to slide to and fro in said guideway, said pusher in its movement advancing said lever bodily after the adjustment thereof.

3. In a coin-collector, the combination with a coin-guideway, of a combined laterally and longitudinally movable caliper and actuating-lever, said lever being adapted to be adjusted laterally by a coin passing through the guideway, a plurality of signal devices, said lever in its longitudinal movement actuating a particular one of said devices, according to the position of adjustment of said lever, and a pusher arranged to slide to and fro in said guideway, said pusher in its movement advancing said lever longitudinally after its lateral adjustment.

4. In a coin-collector, the combination with a coin-guideway, a lever, a movable support for said lever upon which the same is pivoted, said lever having a caliper portion projecting into the aforesaid guideway in position to be engaged and angularly adjusted by a coin forced along said guideway, a signal device disposed so that an actuating part carried by the lever will be brought into operative alinement therewith by a coin of given diameter, whereby said signal device may be actuated by an advance of the lever, a pusher arranged to slide in said guideway to force a coin through the same, and means for advancing the lever-support after the adjustment of said lever by the coin.

5. In a coin-collector, the combination with a temporary coin-receiver having a substantially horizontal guideway, with a mouth at the top and a discharge-opening at the bottom longitudinally displaced relative to said mouth, a pusher arranged to slide to and fro in said guideway to engage a deposited coin and push the same along the guideway from the mouth to the discharge-opening, an actuating-arm, a movable support for said arm upon which the same is pivoted, said arm carrying a caliper portion projecting into

the guideway in the path of a coin, whereby the arm is adjusted to a definite angular position, a plurality of reeds adapted to be selectively actuated by said arm when advanced, the reed selected being determined by the angular position of the arm, a lug carried by the pusher adapted to engage the said movable support and advance the arm in the movement of said pusher, a spring arranged to retract the arm and its support, and a

manually-operated crank and pitman connected to the pusher to reciprocate the same.

In witness whereof I hereunto subscribe my name this 22d day of November, A. D. 1902.

FRANK R. McBERTY.

Witnesses:

DE WITT C. TANNER,
EDWIN H. SMYTHE