

No. 611,825.

Patented Oct. 4, 1898.

J. H. VOLKMANN.

COIN TESTER FOR COIN CONTROLLED APPARATUS.

(Application filed May 25, 1898.)

(No Model.)

Fig. 1.

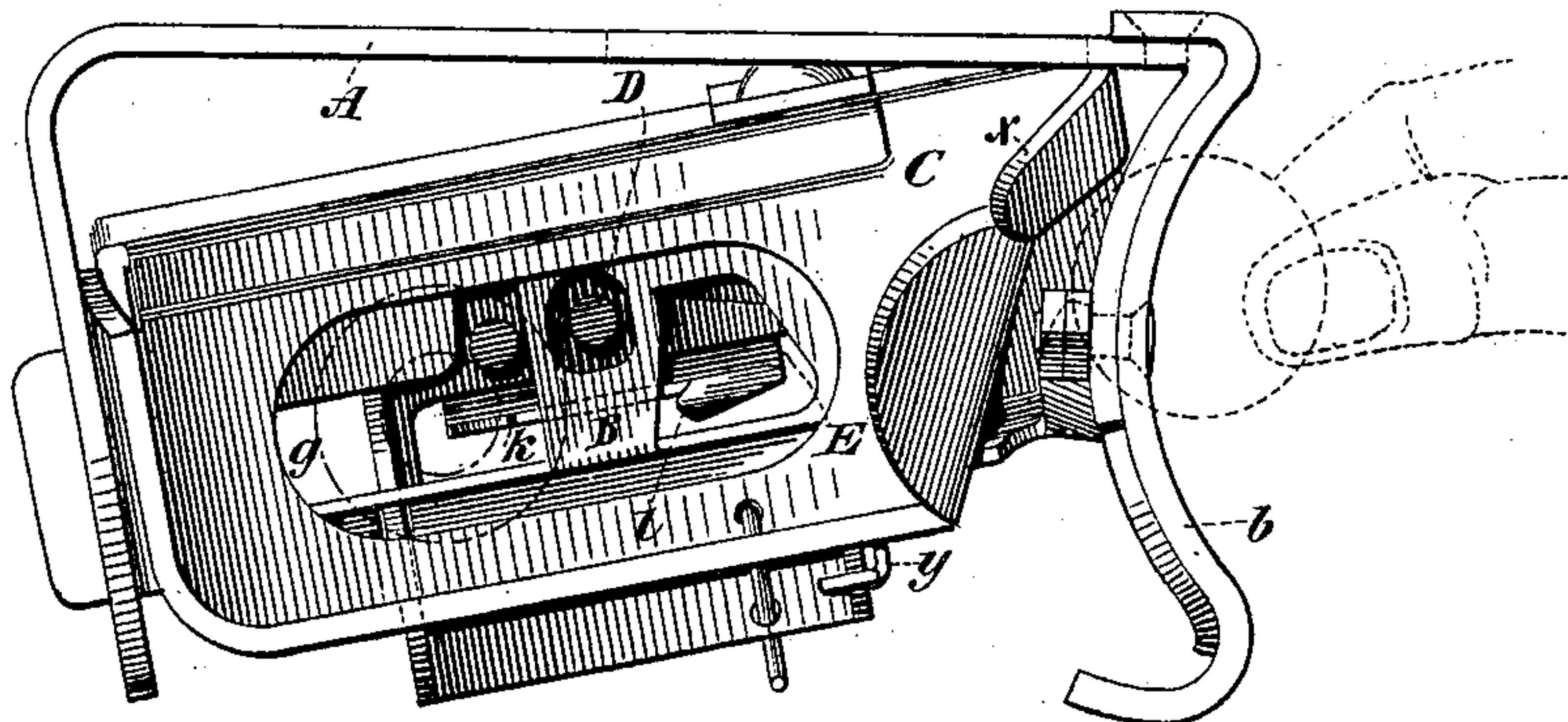


Fig. 2.

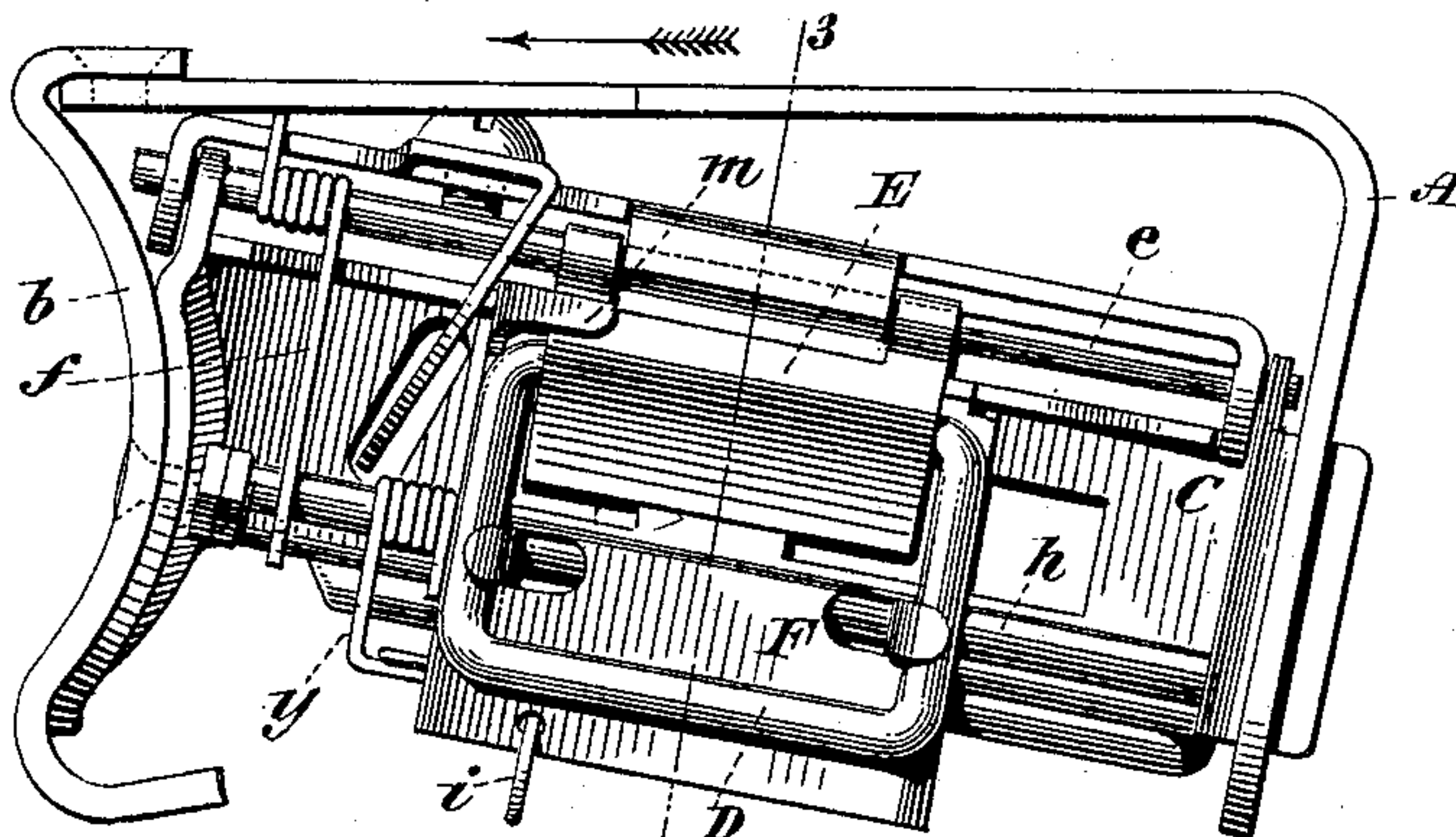


Fig. 3.

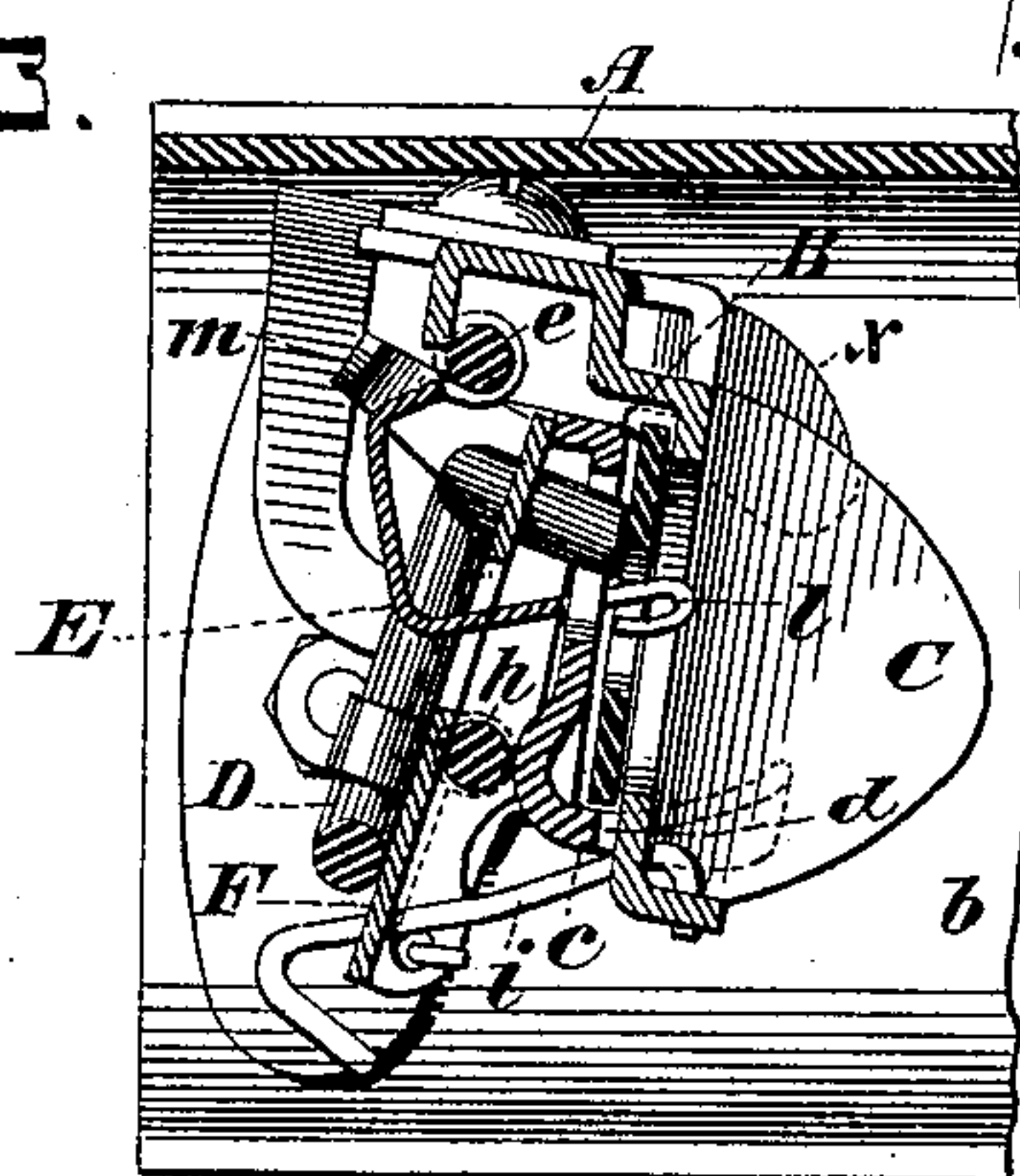


Fig. 4.

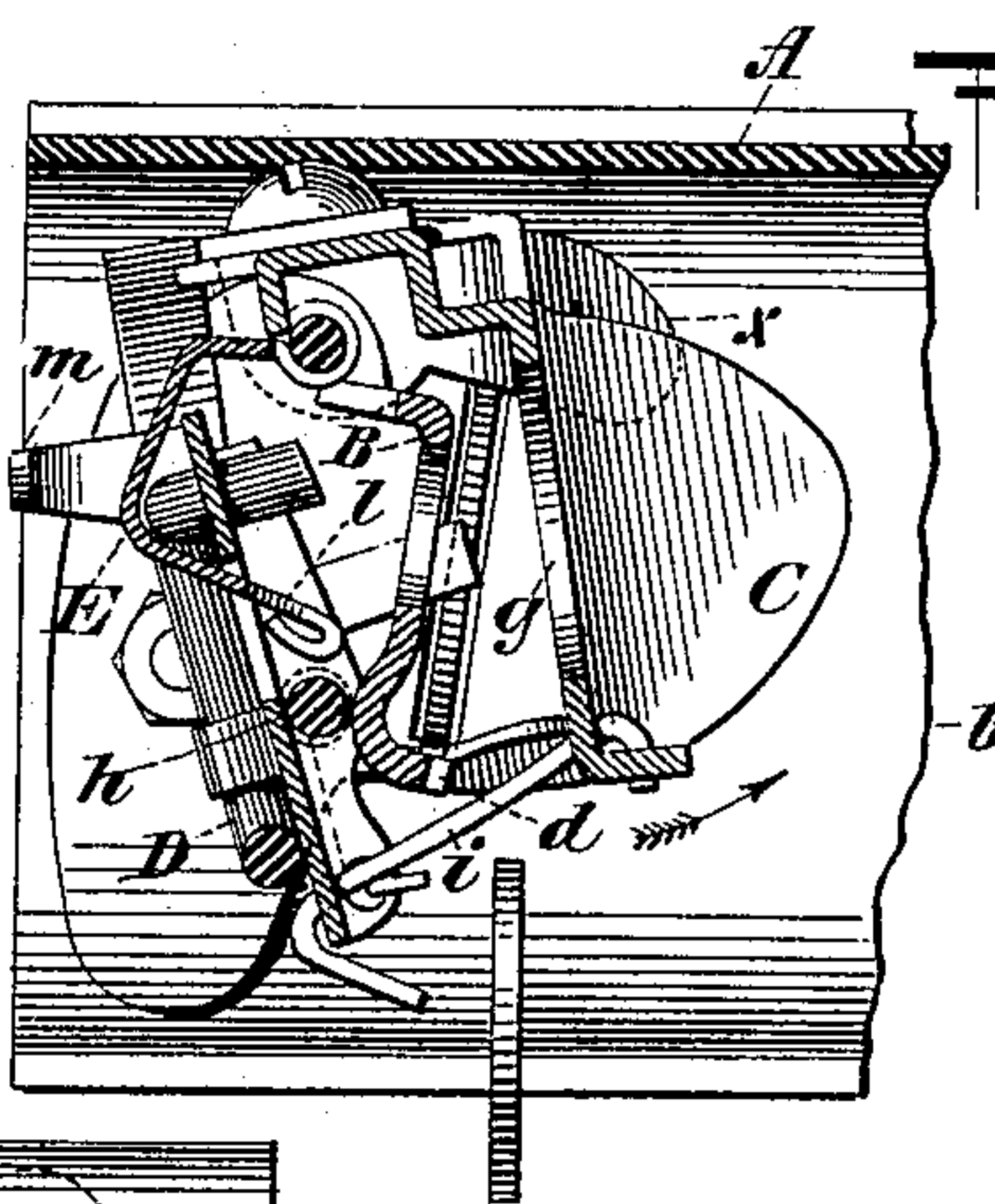
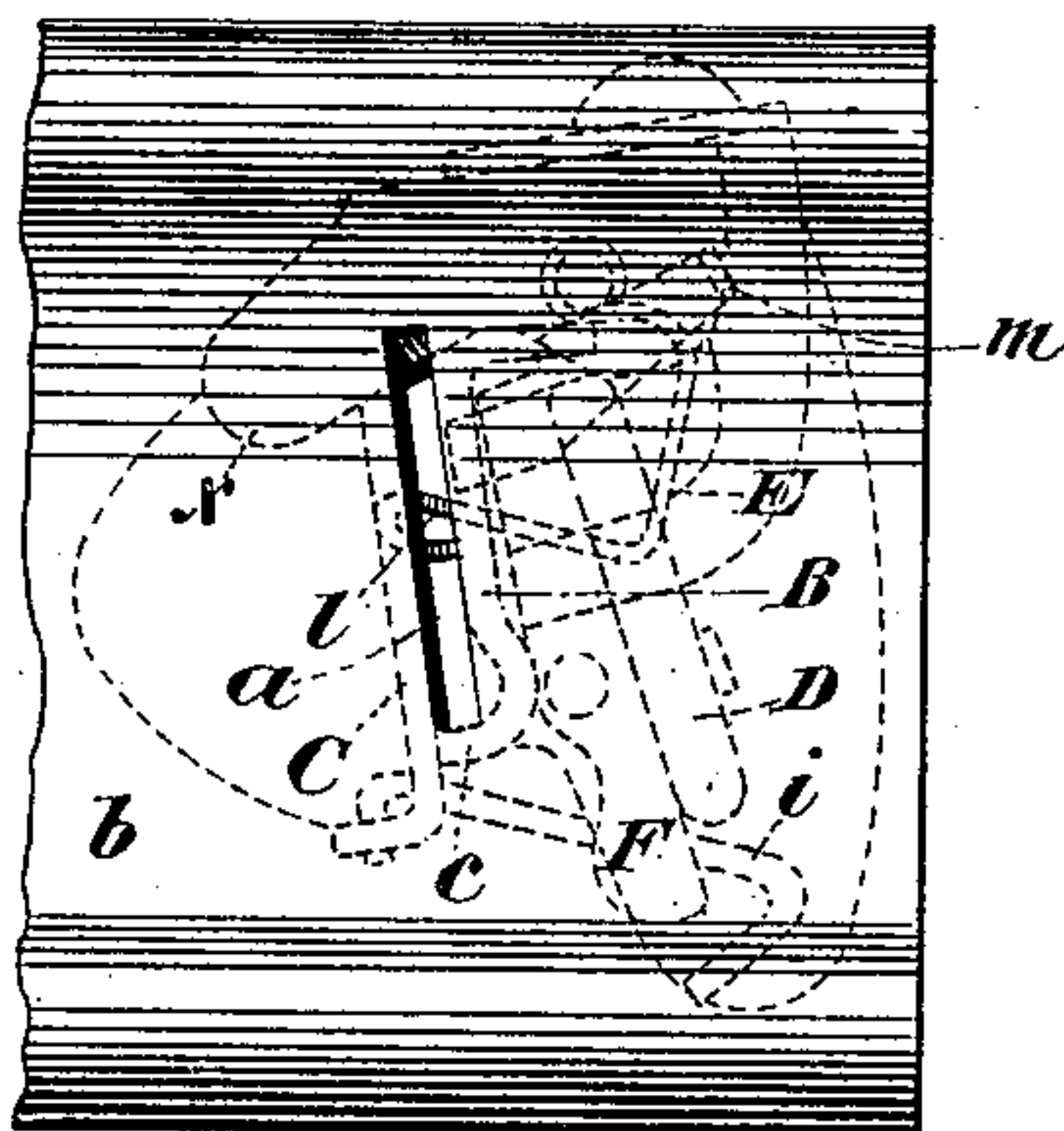


Fig. 5.



WITNESSES:

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COIN-TESTER FOR COIN-CONTROLLED APPARATUS.

SPECIFICATION forming part of Letters Patent No. 611,825, dated October 4, 1898.

Application filed May 25, 1898. Serial No. 681,655. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. VOLKMANN, residing in the city, county, and State of New York, have invented certain new and useful
5 Improvements in Coin-Testers for Coin-Controlled Apparatus, of which the following is a specification.

My invention relates to coin-testers for coin-controlled apparatus, such as vending-machines, and the invention is in the nature of an improvement upon the device forming the subject-matter of my former patent, No. 483,188, which was issued to me on the 27th day of September, 1892.

15 The object of my present invention is to render the device of my former patent above referred to and coin-testers generally more efficient and to provide a device which will more effectively prevent "telegraphing"—
20 that is to say, which will effectively prevent a washer or like false token from being rapidly projected through the tester without allowing the parts to operate upon the token to prevent it from passing to the delivery mechanism.
25

To this end my invention consists in the novel arrangement and combination of parts hereinafter described and claimed.

In the accompanying drawings, wherein
30 like reference characters indicate corresponding parts in the various views, Figure 1 is a side view of a coin-tester embodying my invention. Fig. 2 is a like view of the same looking from the opposite side. Fig. 3 is a
35 transverse vertical sectional view of the same on the line 3 3 of Fig. 2 looking in the direction of the arrow. In this figure the parts are shown in the normal position. Fig. 4 is a view corresponding to Fig. 3, except
40 that the parts are shown in the position in which the washer or false token is discharged from the device. Fig. 5 is a front view of the device with the parts shown in dotted lines to the rear of the slot-plate or the plate which
45 is provided with the coin-receiving openings.

It should first be pointed out that the coin-tester herein shown constitutes in a sense a portion of a coin-chute, so that the coin in its passage from the coin-inlet or slot-opening of
50 the apparatus to the delivery mechanism must pass through the coin-tester. It is immaterial for the purposes of my invention what

character of delivery or operating mechanism is used, inasmuch as the coin-tester may be employed with any character of coin-controlled apparatus, and hence I have shown no delivery or operating mechanism.

In the drawings, A represents the framing, which supports one or more coin-testers in an inclined position in the machine, as indicated
60 in the drawings, and I prefer to make the slots or coin-receiving openings *a* of each of these coin-testers in the front plate *b* of this framing. To this framing is secured a stationary plate B, which is provided at its lower
65 edge with a coin-track *c*, that is cut away or recessed for a portion of its length, as indicated at *d*, for the purpose of allowing a coin or token of less thickness than that intended to operate the apparatus to pass through the
70 recess to a point where the token is ineffective to operate the delivery mechanism. A movable plate C is pivoted to the stationary plate by a pivot-pin *e* or otherwise. The movable plate C is normally maintained in
75 contact with the track *c*, as illustrated in Figs. 3 and 5, by a spring *f*, which is shown to pass around the pivot *e*, and one end of said spring bears against the upper edge of the movable plate, while the other end rests against a stationary portion of the structure. The movable plate C is provided with an elongated perforation, as indicated at *g*, for the purpose of allowing a coin of smaller diameter
80 than that intended to operate the device to drop off the track to one side and to a point where it is ineffective to operate the delivery mechanism. The movable plate C is likewise provided with a finger *x*, which is located adjacent to the front plate *b* and projects across
90 the slot at the upper portion thereof, as clearly indicated in Fig. 5, so that when a coin of the requisite diameter is inserted in the slot the coin will contact with the finger and will force the movable plate C around its pivot
95 into the position indicated in Fig. 4. This separation of the plates B and C allows any false coin or token which may have been prevented passing through the tester to be discharged into a suitable receptacle, where it is
100 ineffective to operate the delivery-machine. To one of the plates B C (to the plate B in the present instance) a magnet D is secured by means of a support F, which is pivoted in any

suitable manner, as indicated at *h*, and is maintained in the normal position represented in Fig. 3 by a spring *y*. A link connection *i* unites the pivoted support *F* of the magnet with the opposite plate, so that a movement of the plates away from each other will cause the magnet to be moved around its pivot, so as to convey the poles of the magnet out of the path of the coin or from their position adjacent to the coin-passage.

Pivoted to the pin *e* is a washer-catcher *E*, which in the present instance is normally maintained in the position illustrated in Fig. 3 by its own weight. It will be observed that the washer-catcher extends to the rear of the magnet *D* and in the path of the movement thereof, so that when the magnet is vibrated from the position shown in Fig. 3 to that illustrated in Fig. 4 it will contact with said washer-catcher and positively move it to one side for purposes which will hereinafter appear. When the washer-catcher is in the position illustrated in Fig. 3, the free hooked ends *k l* thereof project across the path of the coin in its passage through the tester. These hooks *k l* project toward each other, so that a coin such as is intended to be used in the instrument will force the washer-catcher out of its path and the coin is free to pass to the delivery mechanism. If, however, a washer of the thickness and diameter of the coin intended to be used is inserted in the slot, it will be caught upon a hook *k* and will be prevented from passing through the tester. When the next coin or token is inserted in the slot *a*, the plates *B C* will be separated in the manner hereinbefore described, which will result in the magnet being vibrated on its pivot, thereby moving the washer-catcher to the position indicated in Fig. 4, which causes the hook-like projection *k* to be withdrawn from the perforation in the washer, and the plates being separated at this instant the washer is allowed to drop from between them.

It has been found in practice that when a washer is projected with some force through the coin-tester the gravity washer-catcher will be vibrated to its fullest limit out of the path of the washer and that it does not always drop back into position in time to allow the hook *k* to enter the perforation in the washer and prevent it from passing to the delivery mechanism. The principal object of the present invention is to prevent a washer from being projected rapidly through the device to operate the delivery mechanism. For this purpose I provide an abutment *m*, which is adapted to be moved by the operation of the movable plate *C*. In the present instance this abutment *m* is in the nature of a finger which projects from the vibratory magnet-support *F* and in the normal position extends back of the washer-catcher, as indicated in Fig. 3, and is just far enough away from the catcher to allow it to clear itself from the path of the coin. When, however, the plates *B C* are separated by the insertion of a coin,

the stop *m* is automatically moved out of the path of the washer-catcher to allow a full and free movement thereof, as indicated in Fig. 4. By this means it will be understood that should an attempt be made to telegraph the device the washer-catcher, after it has moved sufficiently far to clear the first hook *l*, will strike against the abutment *m*, and the catcher will immediately be in a position where the hook *k* thereof will drop into the central opening in the washer and prevent a further movement thereof along the chute formed by the plates *B C*. The more rapidly the washer is projected through the tester the more rapidly will the washer-catcher return to the engaging position because of the fact that it strikes with greater force against the abutment *m*.

From the foregoing description it is thought that the operation of the apparatus will be understood and that no further description of the operation is required.

In practice my improvements have proven simple, cheap, and efficient means for overcoming the difficulties hereinbefore pointed out.

While I have shown and described my improvements in a coin-testing device embracing features which are disclosed in patents heretofore granted me, I would have it understood that the device forming the subject-matter of my present invention may be employed in any coin-testing apparatus where it may be found available.

What I claim, and desire to secure by Letters Patent, is—

1. In a coin-tester, the combination of a vibratory washer-catcher normally projecting across the path of the coin and an abutment against which said washer-catcher is adapted to be forced by the coin in its passage through the tester.

2. In a coin-tester, the combination of a vibratory washer-catcher normally projecting across the path of the coin and a movable abutment against which said washer-catcher is adapted to be forced by the coin in its passage through the tester.

3. In a coin-tester the combination of a vibratory washer-catcher normally projecting across the path of the coin and an abutment against which said catcher is adapted to bear when it has just cleared the path of the coin.

4. In a coin-tester, the combination of a vibratory washer-catcher normally projecting across the path of the coin, an abutment against which said washer-catcher is adapted to be forced by the coin in its passage through the tester and means for moving said washer-catcher independently of the movement imparted thereto by its contact with the coin.

5. In a coin-tester, the combination of a vibratory washer-catcher normally projecting across the path of the coin, an abutment against which said washer-catcher is adapted to be forced by the coin in its passage through the tester and means for moving the washer-

5 catcher by the introduction of coin in the coin-receiving slot or opening, the movement of the washer-catcher by the introduction of the coin in the coin-receiving slot being independent of the movement imparted by the passage of the coin through the tester.

10 6. In a coin-tester, the combination of a vibratory washer-catcher normally projecting across the path of the coin, an abutment against which said washer-catcher is adapted to be forced by the coin in its passage through the tester, a movable support for the coin in its passage through the tester and means for simultaneously moving the washer-catcher
15 and coin-support by the introduction of the coin in the coin-receiving slot or opening, the movement of the washer-catcher by the introduction of a coin in the coin-receiving slot being independent of the movement imparted
20 by the passage of the coin through the tester.

7. In a coin-tester, the combination of a coin-chute formed of a movable and a stationary plate, a washer-catcher normally projecting across the path of the coin, an abutment
25 against which said washer-catcher is adapted to be forced by the coin in its passage through the chute and means for simultaneously separating said plates and moving the washer-catcher out of the operative position and for
30 maintaining the washer-catcher out of the operative position while the plates are separated.

8. In a coin-tester, the combination of a coin-chute formed of a movable and a stationary
35 ary plate, a gravity washer-catcher normally projecting across the path of the coin, an abutment against which said washer-catcher

is adapted to be forced by the coin in its passage through the chute and means which are operated by the introduction of a coin in the slot or coin-receiving opening for simultaneously separating said plates and moving the washer-catcher out of the operative position and for maintaining the washer-catcher out of the operative position while the plates are
45 separated.

9. In a coin-tester, the combination of a washer-catcher normally projecting across the path of the coin, an abutment against which said washer-catcher is adapted to be
50 forced by the coin in its passage through the tester, a vibratory-magnet which is normally maintained adjacent to the path of the coin and which is adapted to move the abutment when a coin is inserted in the coin-receiving
55 slot.

10. In a coin-tester, the combination of a coin-chute formed of a movable and a stationary plate, a finger on said movable plate, which finger projects across the coin-inlet
60 opening, a gravity washer-catcher normally projecting across the path of the coin, an abutment carried by said movable plate and against which said washer-catcher is adapted to be forced by the coin in its passage through
65 the chute and means for simultaneously separating the plates and moving the washer-catcher out of the operative position by the insertion of a coin.

JOHN H. VOLKMANN.

Witnesses:

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GEO. E. MORSE.