

T. V. SKELLY.
 COIN DETECTOR.
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915,231.

Patented Mar. 16, 1909.

Fig. 1.

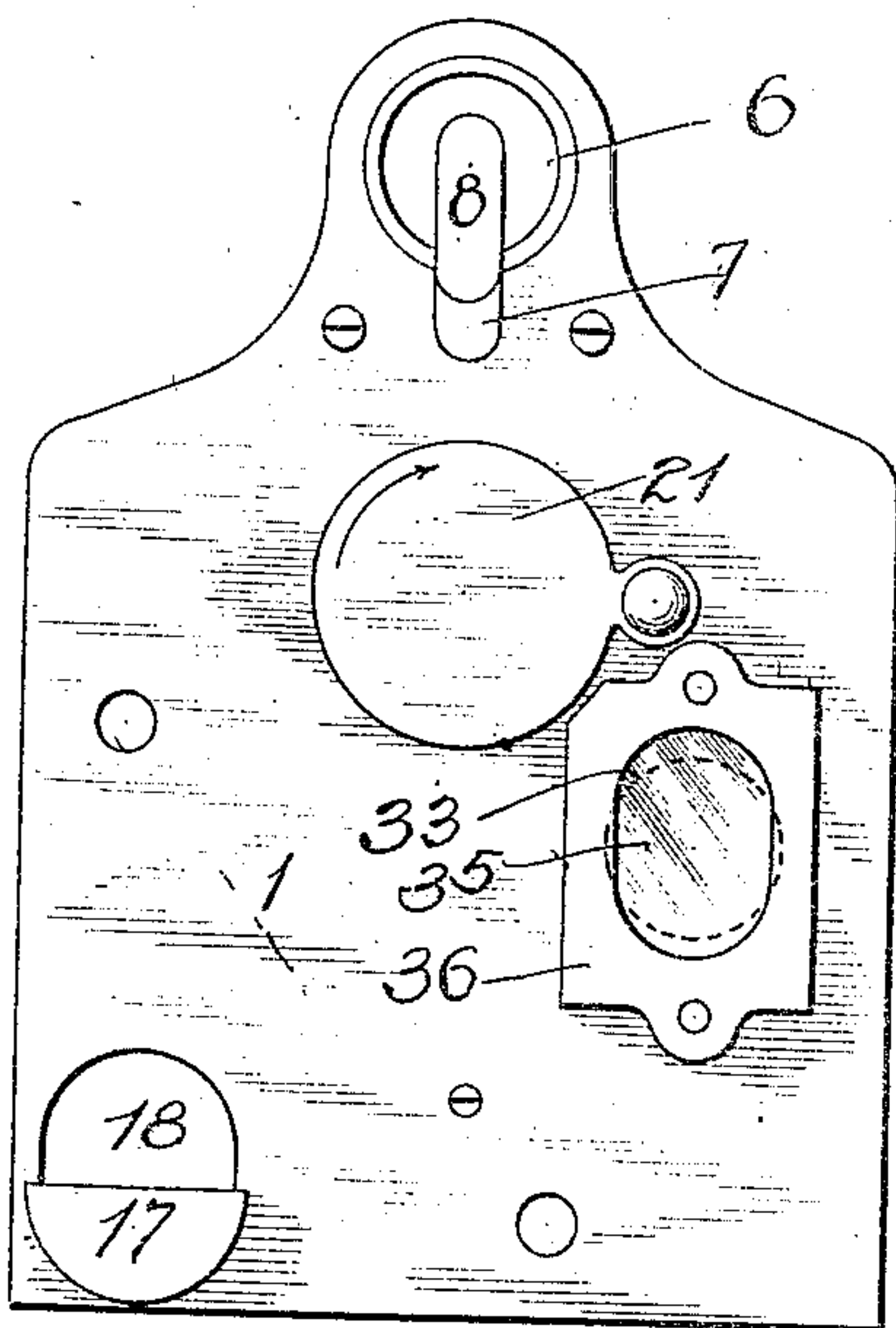


Fig. 2.

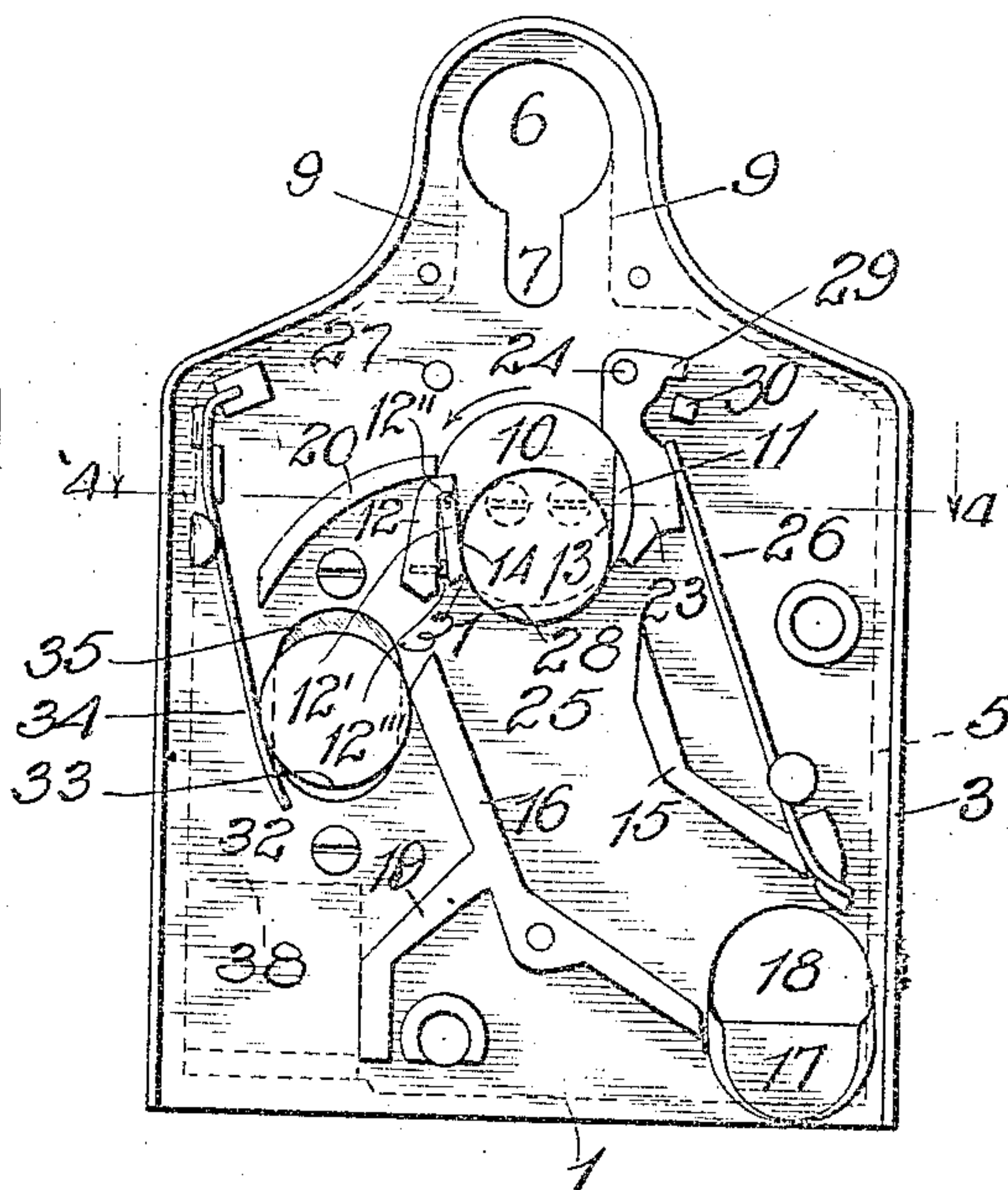


Fig. 3.

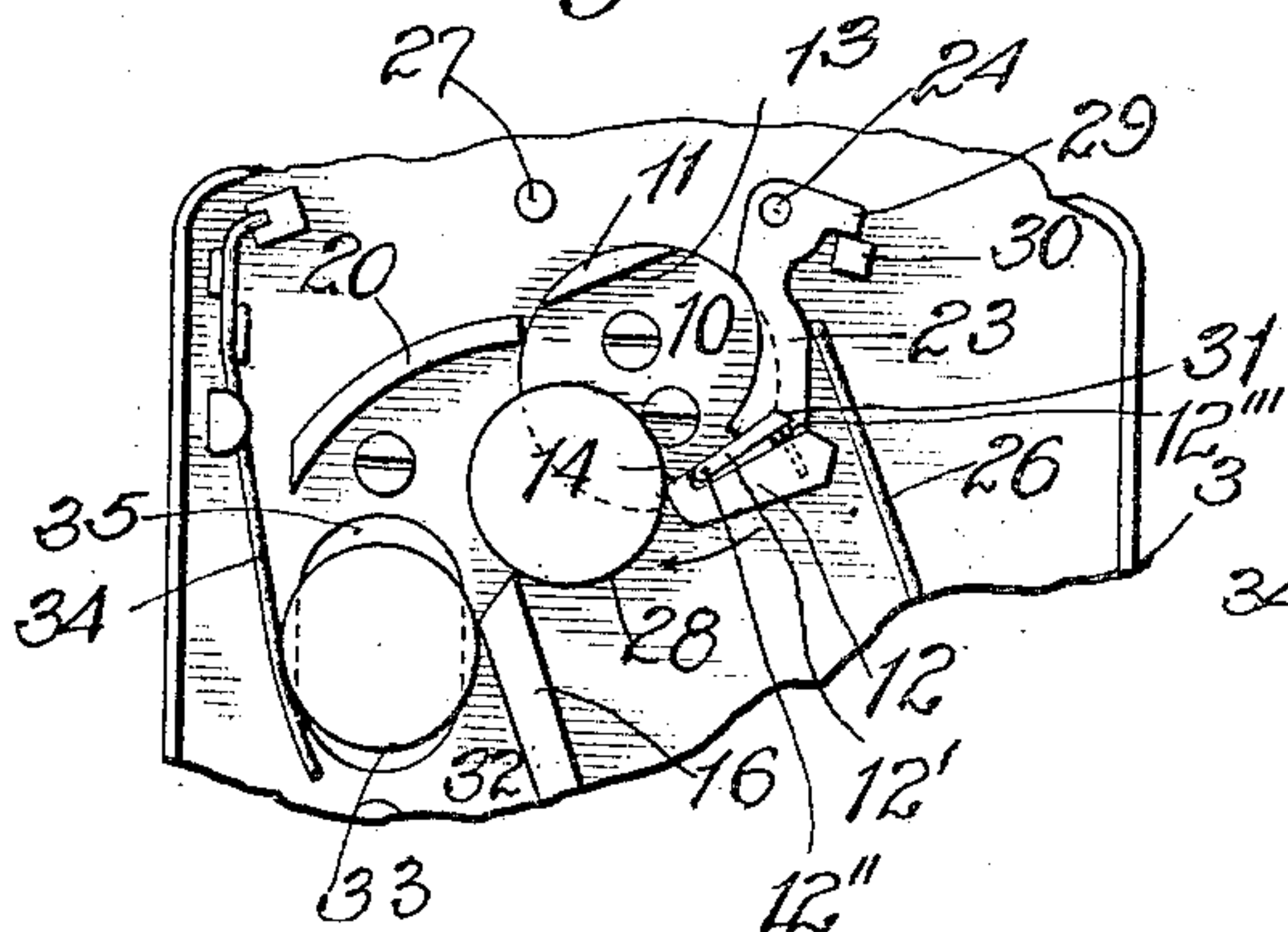
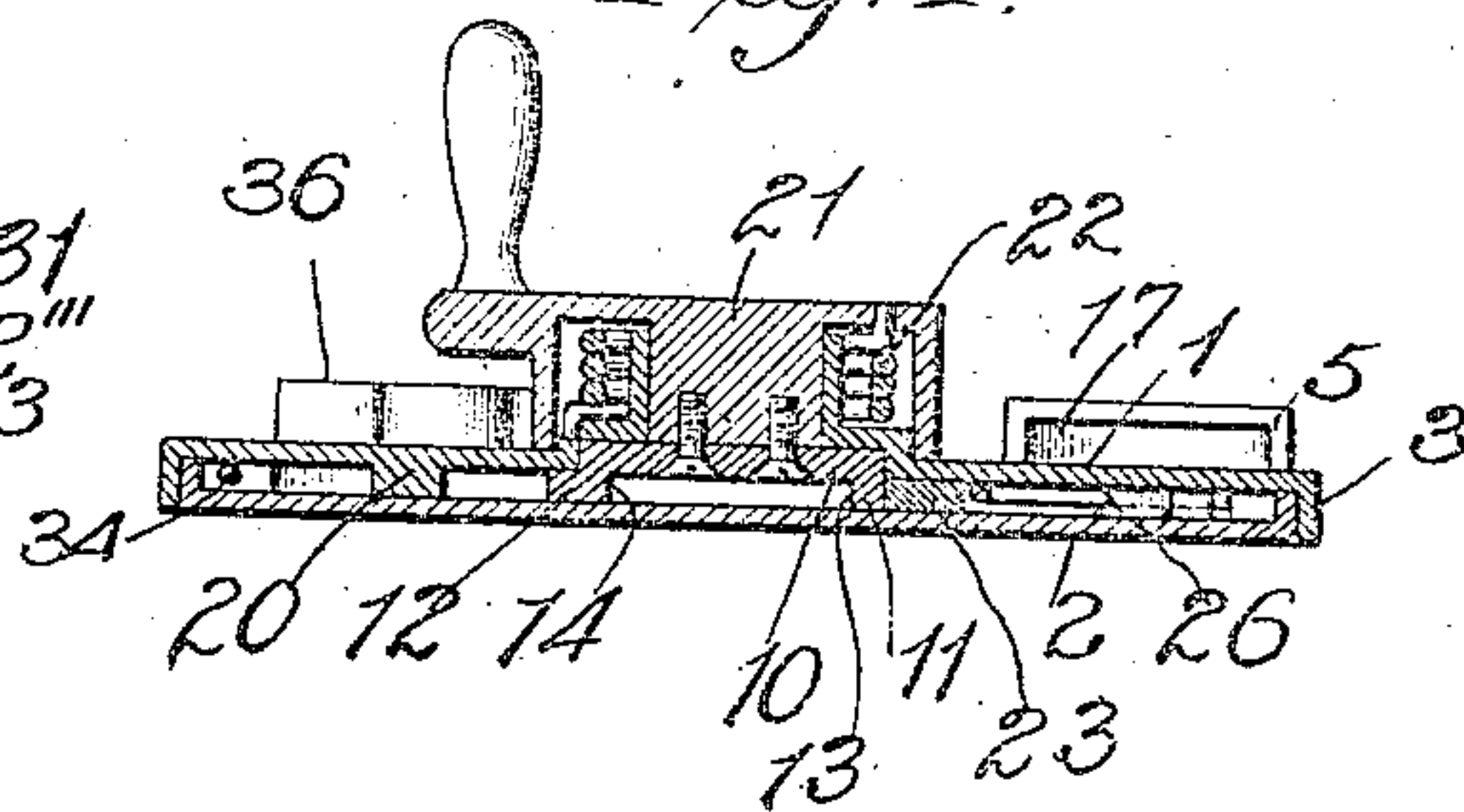


Fig. 4.



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UNITED STATES PATENT OFFICE.

THOMAS V. SKELLY, OF CHICAGO, ILLINOIS.

COIN-DETECTOR.

No. 815,331.

Specification of Letters Patent.

Patented March 16, 1909.

Application filed April 3, 1907. Serial No. 367,300.

To all whom it may concern:

Be it known that I, THOMAS V. SKELLY, a citizen of the United States of America, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Coin-Detectors, of which the following is a specification.

The main object of this invention is to provide an improved form of fraud detecting device for check-controlled apparatus which will reject all coins except those which accurately measure to a certain predetermined diameter and which will disclose to the view of an attendant the last check which has been inserted into the device, and thus prevent the operation thereof by means of slugs or spurious coins, without detection.

This object is accomplished by the device shown in the accompanying drawings, in which—

Figure 1 is a front elevation of a coin detecting device constructed according to this invention. Fig. 2 is a rear elevation of the same with the rear wall of the casing removed. Fig. 3 is an elevation partly broken away of some of the parts shown in Fig. 2 and showing the relative positions of such parts during the delivery of an accepted coin to the chute which connects with the check-controlled apparatus to which the device is applied. Fig. 4 is a section on the line 4—4 of Fig. 2.

In the construction shown in the drawings, the casing consists of a front plate 1 and a back plate 2 having overlapping flanges 3 at their edges. These may be fastened together in any suitable manner so that access to the interior is prevented when the device is in position upon a check-controlled machine. Such check-controlled machine is not shown in the drawings as this invention relates only to the fraud detecting devices.

The front wall 1 of the casing has a circular opening 6 near the top thereof whose diameter is such as to exactly fit the periphery of a coin of the proper denomination for operating the check-controlled apparatus. Both the front and rear wall of the casing have narrow slots 7 and 8 therein so as to permit the insertion of a pointed instrument for measuring a coin too large to pass along the path which may have been forced into the opening 6. The rear wall is provided with surfaces indicated by dotted lines 9 in Fig. 2 which together with the adjacent faces of the

plates 1 and 2 form a coin chute for directing the coin downwardly through the casing.

A circular member 10 is fitted in an inner depression in the front plate 1 at one side of the path of the coins along the chute and is provided with lugs 11 and 12 at opposite sides thereof. The opposite faces 13 and 14 of these lugs form continuations of the edge walls 9 of the chute and also serve as shoulders for engaging the edges of a coin of the proper diameter and supporting it as shown in Fig. 2. The surfaces 13 and 14 converge downwardly toward each other and are accurately formed so as to permit the free passage of any coin or check which is less than the prescribed diameter. The ridges 15 and 16 on the plate 1 form continuations of the edge walls of the chute and direct coins which are allowed to pass the shoulders 13 and 14 toward the pocket 17 into which rejected coins are discharged. The opening 18 in the front plate 1 permits the owner of a rejected coin to recover it. The ridges 16, 19 and 20 together with the plates 1 and 2 form a second discharge chute through which the accepted coins pass as will be hereinafter described. Such coins are allowed to pass through an opening indicated by the dotted lines 38 in Fig. 2 which communicates with the coin chute of the apparatus to which the fraud detecting device herein described is attached. The member 10 is secured to a knob or handle 21, which is outside of the casing, and is normally urged to the angular position shown in Fig. 2 by a helical spring 22.

A dog pawl 23 is pivotally mounted at 24 and is normally urged toward the path of coins along the chute 25 by means of a spring 26. The lug 11 engages the pawl 23 and holds the same in a retracted position when the member 10 is in its normal initial position as in Fig. 2. A stud 27 and part of the pawl 23 serve as guides for directing the coin between the shoulders 13 and 14 as it passes beyond the surfaces 9.

A coin of proper diameter is supported by the shoulders 13 and 14 as at 28 in Fig. 2. When the member 10 is now rotated in the direction of the arrows on Figs. 1 and 2 the member 11 will move out of engagement with the dog 23 and said dog will move inward through pressure of the spring 26, causing the coin 28 to be forced out from between the shoulders 13 and 14 and to roll to the position shown in Fig. 3. The inward

movement of the dog 23 is stopped by the engagement of the lug 29 with a stop 30 on the casing. The rotation of the member 10 is stopped through engagement of the shoulder 31 of the lug 12 with the dog 23. The member 10 is shown in its limiting position in Fig. 3. When the operator releases the knob 21, the spring 22 rotates the member 10 in the direction of the arrow on Fig. 3 and lifts the coin 28 over the top of the wall 16, causing it to fall into the discharge chute 32. The preceding coin 33 will have been supported in the position in which it is shown in Fig. 3 by the spring 34. The rotation of the member 10 in the direction of the arrow on Fig. 3 causes the lug 12 to force the coin 28 along the chute 32 until the preceding coin 33 has been dislodged. The coin 28 will then fall until it is stopped by the spring 34 in the position previously occupied by the coin 33.

An opening 35 in the front plate 1 permits the coin 33 to be seen from the outside of the casing. This opening is covered by a panel of glass which is secured in position by a frame 36, said frame being fastened from the inside. The return movement of the member 10 under the action of the spring 22 is stopped when the upper end of the lug 12 engages the end of the wall 20 as in Fig. 2. This stops the member 10 with the shoulders 13 and 14 in their normal initial position ready to receive another coin.

The guide surfaces 9, 27 and 23, which form parts of the coin chute, guide the coin directly to the space between the shoulders 13 and 14. The ridge 15 is disposed so as to flare away from the ridge 16 near the member 10 so as to form a wide mouth to the chute 25 and insure that for all angular positions of the member 10, a coin passing between the lug 11 and the end of the wall 20 will be free to pass into the chute 25. This prevents any manipulation of the member 10 so as to deliver coins of insufficient diameter to the chute 32.

The operation of the device is shown as follows: When a coin is placed into the opening 6 it will fall along the chute and if it is of insufficient size will pass between the shoulders 13 and 14 into the pocket 17. If the coin is too large it will fail to enter the opening 6. If the coin is of the exact size for which the device is intended, it will be stopped by becoming wedged between the shoulders 13 and 14, as in Fig. 2. When the operator rotates the handle 21 in the direction of the arrows on Figs. 1 and 2, the dog 23 will swing inward as soon as it is released by the lug 11 and will cause the coin 28 to pass to the position shown in Fig. 3. Upon the release of the handle 21, the lug 12 will force the coin over the top of the wall 16 and into the chute 32 as has been hereinbefore described and cause it to dislodge the pre-

vious coin 33. When a coin is forced past the spring 34 in the chute 32, it is delivered through the opening 28 from which it passes to the check-controlled machine not shown. The last coin which is inserted into the device is, however, supported opposite the window 35 so that an attendant may see it and thus detect a counterfeit coin or check which may have been of proper form to escape rejection by the fraud detecting mechanism. In the form shown in the drawings the window 35 is located so as to disclose the last coin inserted. If desired, however, the spring 34 might be lengthened and the window also lengthened so as to support a plurality of coins in the chute 34 and disclose all of them to view.

In order to provide an adjustment for wear of the surfaces 13 and 14, the lug 12 is made in two parts, the part 12' being pivoted at 12'' and being adjustable from the fixed part by means of a small set-screw 12'''. This adjustment also admits of varying the space between the surfaces 13 and 14 to correspond exactly with any particular diameter of coin.

What I claim as my invention and desire to secure by Letters Patent is—

1. The combination of a casing, a coin chute in said casing adapted to direct a coin edgewise downwardly therethrough, a member located in the path of coins along said chute and having thereon shoulders spaced apart and adapted to engage opposite edges of a coin of a certain predetermined diameter and prevent the same from passing along said chute, said member being rotatably mounted, a spring pressed dog movably mounted at one side of said member and adapted to release a coin therefrom through the rotation of said member, a second chute adapted to receive coins discharged from said member, a spring normally urging said member to its initial position, and means on said member adapted to engage a coin and push such coin along said second chute through the return movement of said member.

2. In a device of the class described, the combination of a receiving chute, a delivery chute mounted in alinement therewith, a member interposed between said chutes, shoulders on said member adapted to engage opposite edges of a coin of a certain predetermined diameter and support the same, said shoulders being adapted to permit a coin of less than such predetermined diameter to fall freely into said discharge chute, a second discharge chute at one side of said first discharge chute, said member being movably mounted and adapted through a certain movement thereof to deliver a coin to said second discharge chute, means normally urging the return of said member to its normal initial position, yielding means

adapted to retain a coin in said second discharge chute, a window located to permit said retained coin to be seen from the outside of the chute, and means operated through the return movement of said member for forcing a coin along said second discharge chute so as to release a preceding coin from said retaining means.

3. The combination of a casing, a coin chute in said casing, a member journaled in said casing, a pair of shoulders on said member spaced apart and adapted to engage opposite edges of a coin of a certain predetermined diameter, and to prevent its passage along said chute, a spring pressed dog pivotally mounted at one side of said member and normally urged toward the same, a shoulder on said member adapted to hold said dog in a retracted position when said member is in its normal initial position, a spring normally urging said member to such normal initial position, means for rotating said member, said dog being adapted to engage the edge of a coin supported by said member and release such coin from said member through the rotation thereof.

4. The combination of a casing, a coin chute in said casing, a member journaled in said casing, a pair of shoulders on said member spaced apart and adapted to engage op-

posite edges of a coin of a certain predetermined diameter, and to prevent its passage along said chute, a spring pressed dog pivotally mounted at one side of said member and normally urged toward the same, a shoulder on said member adapted to hold said dog in a retracted position when said member is in its normal initial position, a spring normally urging said member to such normal initial position, means for rotating said member, said dog being adapted to engage the edge of a coin supported by said member and release such coin from said member through the rotation thereof, a second chute adapted to receive coins ejected from said first chute, yielding means for supporting a coin in said second chute, a window in one side of said second chute to permit such supported coin to be seen from the outside of the casing, and a surface on said member adapted to engage the edge of an adjacent coin in said second chute and force the same along said chute for dislodging the coin supported by said yielding means.

Signed at Chicago this 5th day of April 1907.

THOMAS V. SKELLY.

Witnesses:

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