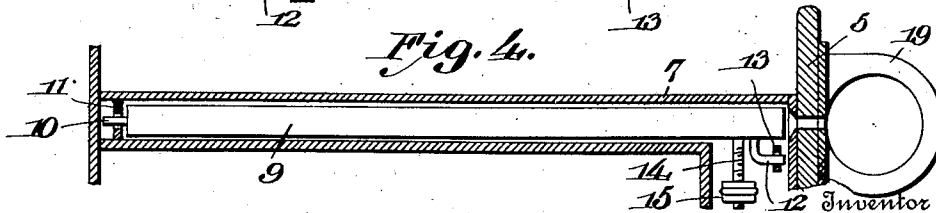
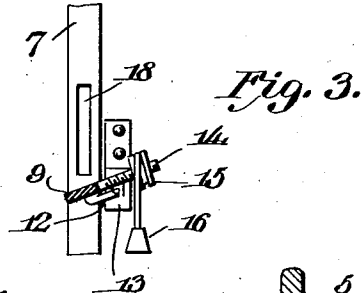
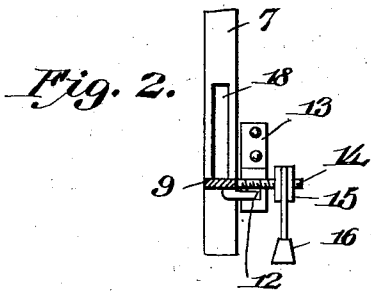
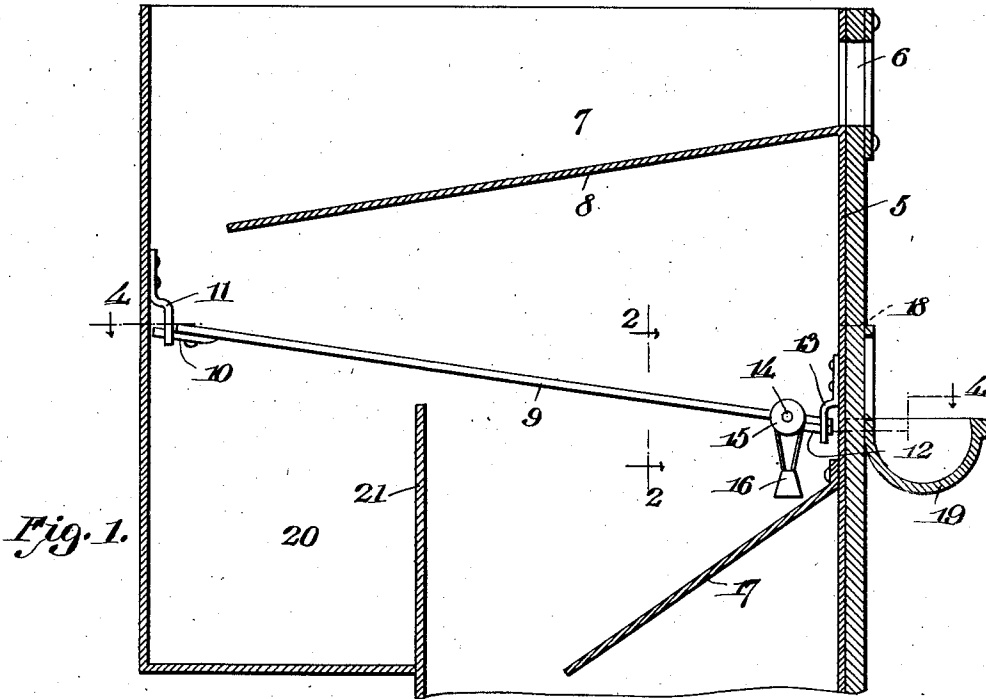


A. E. MARSH.
 COIN DETECTOR.
 APPLICATION FILED AUG. 26, 1911.

1,021,615.

Patented Mar. 26, 1912.



Arthur E. Marsh.

By Victor J. Evans

Attorney

Witnesses

W. B. Salt.
W. O. Parker.

UNITED STATES PATENT OFFICE.

ARTHUR E. MARSH, OF DENVER, COLORADO.

COIN-DETECTOR.

1,021,615.

Specification of Letters Patent. Patented Mar. 26, 1912.

Application filed August 26, 1911. Serial No. 646,114.

To all whom it may concern:

Be it known that I, ARTHUR E. MARSH, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented new and useful Improvements in Coin-Detectors, of which the following is a specification.

The invention relates to coin chutes, and more particularly to the class of coin detectors for coin chutes designed for use in coin controlled delivery machines.

The primary object of the invention is the provision of a device of this character in which any coin of a predetermined denomination and possessing the standard weight will be permitted to be delivered from the chute within the machine for effecting the actuation of the same, but should a spurious or dummy coin be inserted in the chute of the machine of less weight than the standard coin, it will be ejected from the chute, or should a slug of heavier weight than the standard coin be introduced into the chute, it will be deflected from the regular course therein, so as to be ineffective in operating the machine.

A further object of the invention is the provision of a coin detector of this character which is simple in construction, positive in operation, and inexpensive in manufacture.

With these and other objects in view, the invention consists in the construction, combination and arrangement of parts, as will be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claims hereunto appended.

In the drawings: Figure 1 is a fragmentary vertical longitudinal sectional view through a coin controlled vending apparatus, showing the coin chute disposed therein and also the coin detector constructed in accordance with the invention. Fig. 2 is a sectional view on the line 2—2 of Fig. 1, with the coin detector in normal position. Fig. 3 is a similar view, showing the coin detector tilted. Fig. 4 is a sectional view on the line 4—4 of Fig. 1.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

Referring to the drawings by numerals, 5 designates a portion of the front wall of the casing of a coin controlled vending apparatus, the same being provided with a coin receiving inlet or slit 6, which communicates

with a coin chute column 7, between the side walls of which is arranged a rearwardly inclined runway 8 for the coins inserted through the slit 6 into the column, so that the said coins will be directed onto a coin detector, presently described.

The coin detector comprises a forwardly inclined side tilting platform 9 which is arranged below the runway 8 within the column 7, the platform being formed at its rear end with a medial knife edge pivot 10 journaled in a bearing 11 fixed to the rear wall of the column 7, while at its front end, at one longitudinal edge thereof, is formed a forwardly directed knife edge fulcrum or pivot 12, the same being journaled in a bearing 13 fixed to the front wall of the column 7, thus enabling the said platform to possess a tilting action on a diagonal axis, whereby its rear portion will have a short leverage, while its forward portion will have a long leverage, for a purpose presently described.

Formed contiguous to the front knife edge pivot 12 and projecting laterally therefrom is a threaded weight arm 14, on which is adjustably mounted a weight carrying element 15 provided with a depending weight key 16 which is designed to balance the platform 9, whereby a coin of a predetermined denomination and of standard weight will cause the tilting thereof when dropping from the runway 8 onto the said platform, and after the said coin has traveled forwardly upon the latter within the long leverage portion of the said platform, thus permitting the coin to drop into the vending machine for actuating the same. Arranged within the column 7 spaced below the tilting platform 9 are downwardly converging guideways 17 which deflect the coin of predetermined denomination and of standard weight into the machine for the actuation thereof.

Provided in the front wall of the column 7, at the forward end of the tilting platform 9, is an exit slit 18, which communicates with a catch pocket 19 mounted upon the front wall 5 of the vending machine casing, so that should a disk or coin of a weight lighter than the predetermined coin of standard weight be dropped into the chute column through the inlet slit 6 therein, the said disk or coin will gravitate from the runway 8 onto the tilting platform 9, but will not tilt the same and thence will be delivered through the exit slit 18 into the

catch cup 19. In other words, by reason of pivotally mounting the platform 9 on a diagonal axis, it will possess leverage different at opposite ends, and the same will be susceptible of quicker tilting action at one end than at the opposite end, so that when a coin of a heavier weight than the predetermined coins of standard weight is dropped onto the platform 9 at the short leverage end, it will instantly tilt for the dropping of the said coin into the compartment 20. Now, on the falling of the coin of standard weight onto the platform 9, at the short leverage end thereof, the said platform will not respond by a tilting action, until said coin has rolled onto said long leverage end, whence it will tilt, dropping said coin into the machine to be operated. Thus, in this manner, the said coin or disk will be ejected from the vending machine, so as to prevent any possibility of the actuation thereof. Should a disk or slug of a heavier weight than the predetermined coin of standard weight be introduced into the chute, the same will be caused to gravitate from the runway 8 onto the platform 9 at the end having the shortest leverage, whereupon the platform will be caused to tilt, dropping the slug or disk into a compartment 20 separated from the course of travel of the coin of the predetermined denomination and standard weight by means of a vertical partition 21 in the chute column 7, thereby separating the coins from each other, so that the slugs will be ineffective in operating the vending machine.

What is claimed is:

1. The combination with a coin chute, of a coin detector, comprising a tilting platform intersecting the path of said chute, and means pivoting the said platform on a diagonal axis, whereby said platform will tilt on the contact of a coin of a predetermined weight therewith at one end of the same and also on the contact of a coin of a different weight with respect to said first-named coin therewith at its opposite end.

2. The combination with a coin chute, of a coin detector, comprising a tilting plat-

form intersecting the path of said chute, means pivoting the said platform on a diagonal axis, whereby said platform will tilt on the contact of a coin of a predetermined weight therewith at one end of the same and also on the contact of a coin of a different weight with respect to said first-named coin therewith at its opposite end, and adjustable weight means for balancing said platform.

3. The combination with a coin chute, of a coin detector, comprising a tilting platform intersecting the path of said chute, means pivoting the said platform on a diagonal axis, whereby said platform will tilt on the contact of a coin of a predetermined weight therewith at one end of the same and also on the contact of a coin of a different weight with respect to said first-named coin therewith at its opposite end, adjustable weight means for balancing said platform, and a partition in said chute below the platform to form independent chambers for receiving said coins, respectively.

4. The combination with a coin chute, of a coin detector, comprising a tilting platform intersecting the path of said chute, means pivoting the said platform on a diagonal axis, whereby said platform will tilt on the contact of a coin of a predetermined weight therewith at one end of the same and also on the contact of a coin of a different weight with respect to said first-named coin therewith at its opposite end, adjustable weight means for balancing said platform, a partition in said chute below the platform to form independent chambers for receiving said coins, respectively, the said chute being provided with an opening at one end of the platform, and a cup exteriorly of the chute below the said opening for receiving a coin lighter than the previously mentioned coin.

In testimony whereof I affix my signature in presence of two witnesses.

ARTHUR E. MARSH.

Witnesses:

THOMAS H. CLOSE,
ARTHUR LAFFERTY.