

E. H. COOK.
COIN DETECTOR.

No. 498,767.

Patented June 6, 1893.

Fig. 1.

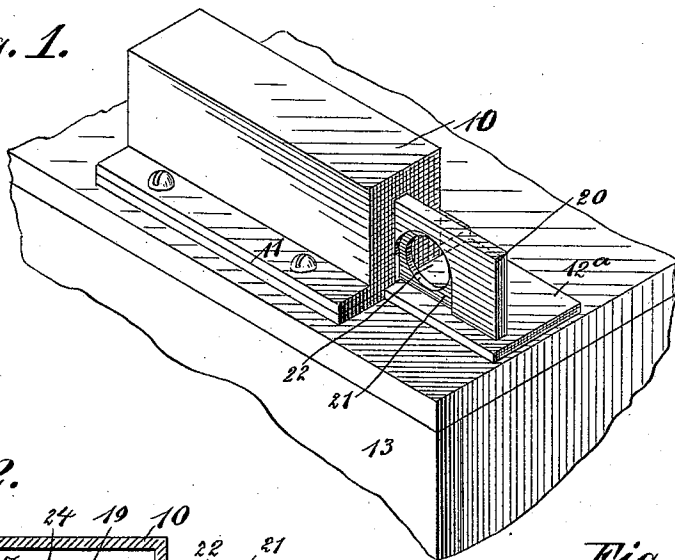


Fig. 2.

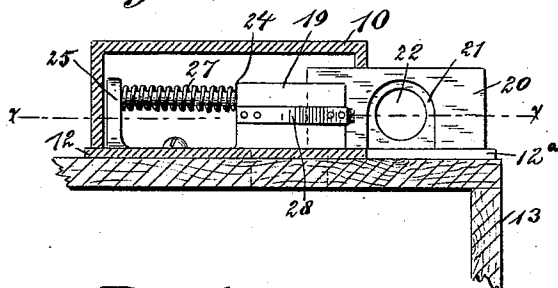


Fig. 3.

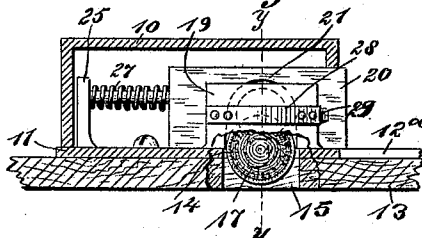


Fig. 4.

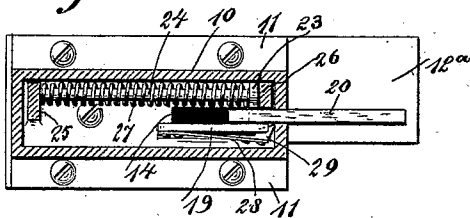


Fig. 5.

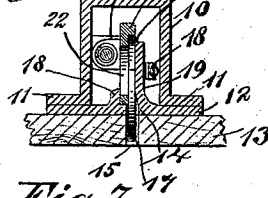


Fig. 6.

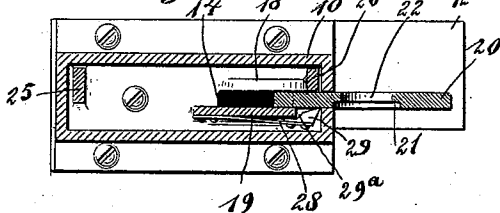
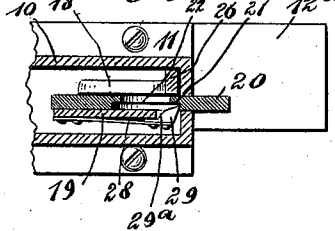


Fig. 7.



Witnesses:

L. Sedgwick
W. W. Munnaford

Inventor:

by E. H. Cook
Munn & Co
Attorneys

(No Model.)

2 Sheets—Sheet 2.

E. H. COOK.
COIN DETECTOR.

No. 498,767.

Patented June 6, 1893.

Fig. 8.

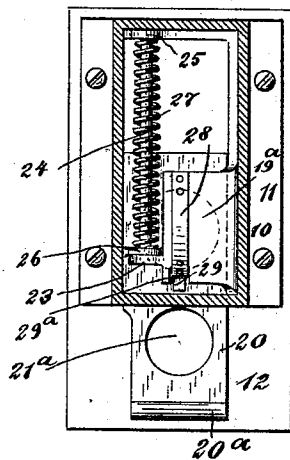


Fig. 9.

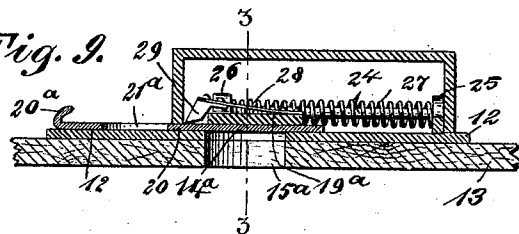
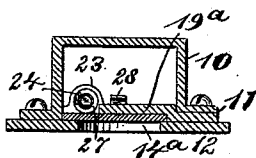


Fig. 10.



Witnesses:
C. Sedgwick
J. M. Stanford

Inventor:
E. H. Cook
by Munn & C
Attorneys

UNITED STATES PATENT OFFICE.

EDGAR H. COOK, OF BROOKLYN, NEW YORK.

COIN-DETECTOR.

SPECIFICATION forming part of Letters Patent No. 498,767, dated June 6, 1893.

Application filed September 9, 1892. Serial No. 445,437. (No model.)

To all whom it may concern:

Be it known that I, EDGAR H. COOK, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Coin-Detector, of which the following is a full, clear, and exact description.

My invention relates to improvements in coin detectors such as are adapted for use in coin operated machinery, and which are arranged to guard the mouth of the coin chute and detect and reject all coins of the wrong size and all rubbish such as washers, buttons, and the like.

The invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the coin detector embodying my invention, showing it applied to the case of a coin-operated machine. Fig. 2 is a longitudinal sectional elevation of the detector showing the coin plate in an extended position. Fig. 3 is a similar section, but with the coin plate pushed in so as to deliver coin into the slot of the machine. Fig. 4 is a sectional plan of the detector. Fig. 5 is a cross section on the line $y-y$ in Fig. 3. Fig. 6 is a longitudinal section on the line $x-x$ in Fig. 2, showing the coin plate in extended position. Fig. 7 is a broken section on the same line as Fig. 6, but with the coin plate pushed in. Fig. 8 is a sectional plan of a modified form of the coin detector in which the coin plate is held to slide flatwise on the base plate. Fig. 9 is a central section of the detector, as shown in Fig. 8; and Fig. 10 is a cross section on the line $z-z$ in Fig. 9.

The detector has a hollow rectangular case 10 with base flanges 11 which enable it to be easily screwed to a base plate 12, a reduced end 12^a of which extends forward so as to form a base for the coin plate. The detector is screwed to the case 13 of any coin-controlled or operated machine so as to cover the slot which delivers to the chute of said machine, and the base plate 12 is provided at a point within the case with a slot 14 adapted to receive the kind of coin 17 which is deliv-

ered to the machine, and this slot registers with a slot 15 in the case 13.

On the base plate 12 and on opposite sides of the slot 14 are produced a rib 18 and an upwardly extending flat post or support 19, these forming between them a slideway in which the coin plate 20 is held to slide, this plate being also adapted to slide in the slot in the front end of the case 10, as shown clearly in Fig. 1. The coin plate has on one side a recess 21 which is oval at the top and which is of a size to receive the appropriate coin for delivery into the slot 15 of the machine. The depth of the recess is such that the coin, when placed within it, will just fill the recess and its outer face will be flush with the side of the coin plate. Near the center of the recess is a hole 22 extending through the plate and if too small a coin is placed in the recess, it will drop through the hole.

Near the inner end of the coin plate and on one side is a lug 23 which is shown best in Figs. 4 and 5, and this lug serves as an abutment which limits the outward movement of the plate, and it also acts as a guide for the plate, the lug being held to slide on a guide rod 24 which extends longitudinally through the case and parallel with the coin plate, the rod being supported in posts 25 and 26 which are produced on the base plate near the ends of the case. Coiled around the rod 24 behind the lug 23 is a spiral spring 27 which, when the plate is pushed inward, is compressed, and when the plate is released, the tension of the spring forces it outward into the position shown in Figs. 1 and 2.

On the back or outer side of the flat post 19 is secured a spring 28, the free end of which projects slightly beyond the forward end of the post, and secured to the free end of the spring is a detent or pawl 29 which is held to move in a notch 29^a in the post and is adapted to spring into the recess 21, and by engaging the wall of the recess prevent the plate from being pushed inward far enough to have the recess 21 register with the slots 14 and 15. The inner portion of the detent or pawl 29 is inclined, as shown clearly in Figs. 6 and 7, so that it in no wise interferes with the free outward movement of the coin plate.

As illustrated in Figs. 1 to 7 and described

above, the coin detector is used as follows:—
 The coin to be inserted in the coin chute is placed in the recess 21 which it exactly fills, and the plate 20 is pushed inward, the pawl 29 passing freely over the coin 17 in the recess so that it will not engage the wall of the recess, and when the recess registers with the slots 14 and 15, the coin drops through into the chute of the machine. If, however, the coin is too thin or a button, washer, or similar article is inserted in the recess with a view of cheating the machine or its proprietors, the pawl 29 will spring upon the article in the recess, as above described, but as the recess is imperfectly filled the pawl engages the outer wall of the recess, thus stopping the coin plate and preventing the said article from being dropped into the chute of the machine.

As shown in Figs. 8 to 10, the detector is somewhat modified, but the principle is the same. Here the coin plate 20 slides flatwise on the base plate 12 and beneath a keeper or guide plate 19^a. The coin plate has a hole 21^a, in its outer portion, of an exact size to receive a coin and the base plate 12 and case 13 of the machine have similar holes 14^a and 15^a, with which the hole 21^a is adapted to register. The outer end of the coin plate is bent up, as shown at 20^a to form a handle. The operation of the machine as shown in these figures, is substantially as described above, and the spring pawl 29 is carried by the spring 28 which is secured to the upper side of the keeper 19^a and the pawl is adapted to engage in the recess in exactly the manner above specified.

The lug 23, guide rod 24, spring posts 25 and 26, and spring 27 are all arranged substantially in the manner already described,

and the pressure of the spring holds the plate extended. The coin being inserted in the machine is laid flatwise in the hole 21^a, the plate 20 pushed inward, and if the coin is of the exact size to fill the hole the pawl 29 passes freely over the latter and the coin is deposited in the holes 14^a and 15^a. If, however, the coin is too small or some other material is used, the pawl will engage the wall of the hole 21^a and stop the plate from being pushed in.

It will be noticed that in both forms of the machine a coin thicker than the plate in which it is carried cannot be used, as the projecting portion of the coin or other article strikes the wall of the case 10.

From the foregoing description it will be seen that the appropriate coin may be very conveniently deposited in the chute, but that it is practically impossible to introduce any other article.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A coin detector, comprising an inclosing case adapted to cover the slot of a machine, a coin plate held to slide in and out of the cover, said plate having a coin-carrying recess therein to register with the coin slot, a guide rod held within the case parallel with the coin plate, a lug produced upon the coin plate and held to slide on the rod, a spring arranged to press the coin plate forward, and a pawl held to press on the plate and adapted to engage the recess therein, substantially as described.

EDGAR H. COOK.

Witnesses:

WARREN B. HUTCHINSON,
 C. SEDGWICK.