No. 617,421. Patented Jan. 10, 1899.

J. MASON.

COIN DETECTOR.

(Application filed Dec. 10, 1896.)

(No Model.)

Fig. 1,

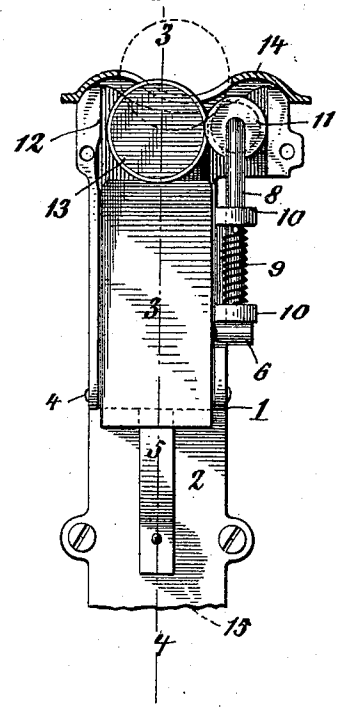


Fig. 2,

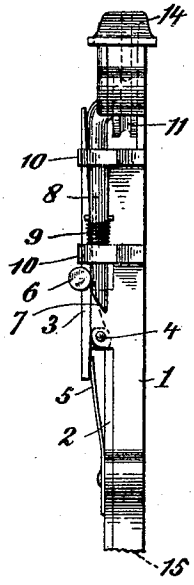


Fig. 3,

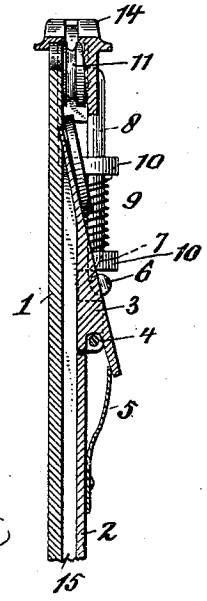
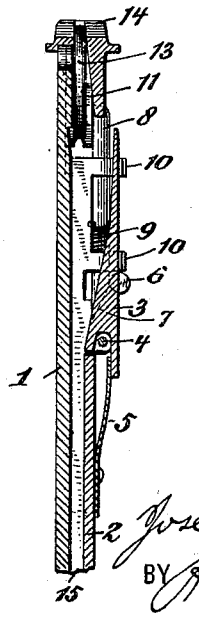


Fig. 4,



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSEPH MASON, OF NEW YORK, N. Y., ASSIGNOR TO THE AMERICAN MUTOSCOPE COMPANY, OF SAME PLACE.

COIN-DETECTOR.

SPECIFICATION forming part of Letters Patent No. 617,421, dated January 10, 1899.

Application filed December 10, 1896. Serial No. 615,112. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MASON, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Coin-Detectors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to coin-operated or coin-released devices; and it consists of a coin-detector by which coins of less diameter or less thickness than a standard coin of the denomination intended to operate the machine will be shunted around or away from the operating mechanism, but full-weight coins of the proper denomination will be admitted and passed onto the mechanism.

The preferred form of my invention is illustrated in the accompanying sheet of drawings, in which—

Figure 1 is a front view of the upper portion of a coin-chute, with a section through the mouthpiece. Fig. 2 is a side view of the same. Fig. 3 is a vertical section on line 3 4 of Fig. 1, showing the switch in position to shunt coins away from the chute. Fig. 4 is a similar section with the switch in position to admit the proper coin.

Throughout the drawings like reference-figures refer to like parts.

1 is the main body of the chute-casting. 2 is a plate secured thereto and completing the chute. 3 is a switch-plate pivoted at 4. The plate-spring 5 normally holds the switch-plate swung across the chute, as shown in Fig. 3.

6 is a lug projecting to one side of the switch-plate. 7 is a beveled face on the plunger or rod 8, which engages said lug.

9 is a spiral spring which normally forces rod 8 outward.

10 are guides in which rod 8 slides in and out.

11 is a grooved roller mounted on the outer end of rod 8. A stationary guide 12 is found at the mouth of the chute with a depression opposite the roller 11. A coin 13 is shown in operative position.

14 is the slotted cap, which is placed over the mouth of the chute.

15 is the passage-way for coins, or chute proper.

The operation is as follows: When a coin of proper diameter and thickness—say a nickel five-cent piece—is introduced, the roller 11 will not let it pass until the entering coin has forced the roller down opposite the depression in the guide 12. By that time the beveled face 7 has forced the lug 6 to one side and thrown the switch-plate 3 into the position shown in Figs. 2 and 4 and the coin will pass on down the chute 15 to the coin-operated or coin-released mechanism. (Not shown.) If a coin of less diameter be introduced, such as a penny, it will not force the roller 11 down, or if it does force it down for an instant will not hold it long enough for the coin to get behind the switch-plate 3, so the coin will be shunted away from the chute 15 and can be dropped directly into the money-drawer without operating the mechanism, or being returned to the customer. If a worn five-cent piece or other coin of standard diameter but of less than standard thickness were introduced, it would sink so far into the groove on the roller 11 that the switch would not be operated, and it also would be rejected by the apparatus.

The groove in the roller 11 may be made V-shaped or U-shaped. The roller might be dispensed with and a solid sliding piece used. Other forms of springs might be employed or weights might take their place. Other forms of mechanism for transmitting motion from movable guide 11 to the pivoted switch might be substituted; but I prefer the form of apparatus illustrated, as being the simplest and cheapest known to me and most delicate and certain in action.

Having therefore described my invention, what I claim as new, and desire to protect by Letters Patent, is—

1. In a coin-detecting apparatus, the combination of a coin-chute, a stationary guide provided with a depression at one side of the

mouth of the chute, a movable guide at the opposite side of the mouth, a pivoted switch in said chute and means whereby the movable guide controls the switch, substantially as described.

2. The combination of a coin-chute, a stationary guide at one side of the mouth, a movable spring-controlled opposing guide which moves in the direction of the length of the chute, a pivoted switch which normally closes the chute, and connections such that an inward motion of the movable guide throws up the switch and opens a passage-way down the chute, substantially as described.

3. The combination of a coin-chute, a stationary guide at one side formed with a depression therein, a rod sliding in guides at the other side, a spring which presses said rod outward, a grooved roller carried on the outer end of said rod opposite the depression in the stationary guide, a pivoted switch, a spring which normally holds the switch across the chute, and a lug on said switch which is pushed aside by a beveled surface on the sliding rod when the same is forced down by the introduction of a coin of proper size, substantially as described.

4. In a coin-detecting apparatus the combination of a coin-chute, a switch located in said chute, a grooved roller located at one side of the mouth of the chute, and means whereby the movements of the roller control the position of the switch, substantially as described.

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

JOSEPH MASON.

Witnesses:

JOHN W. MILLER,

GEO. B. YOUNGS.