

960,716.

F. SCHORIK.
COIN DETECTOR.
APPLICATION FILED MAR. 30, 1910.

Patented June 7, 1910.

2 SHEETS—SHEET 1.

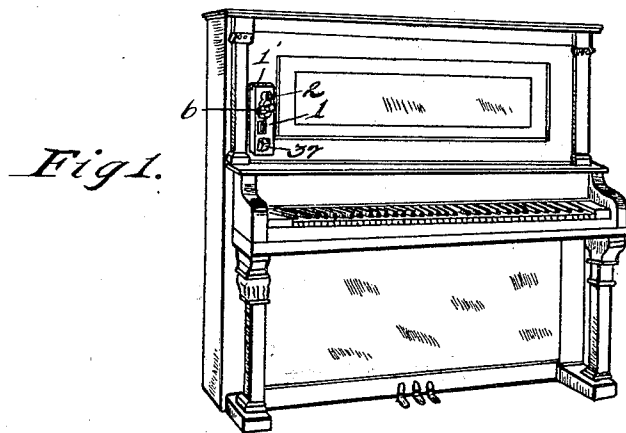


Fig. 2.

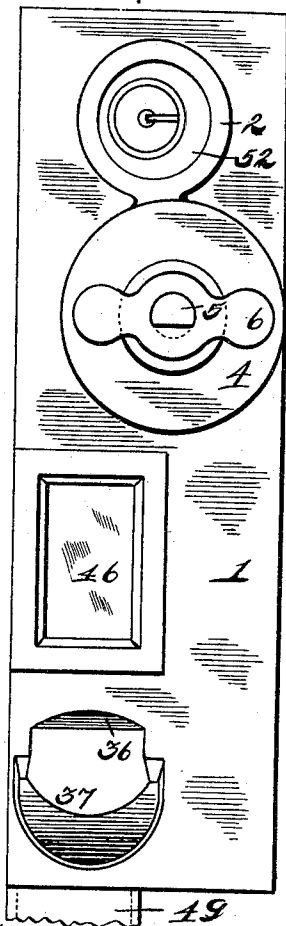
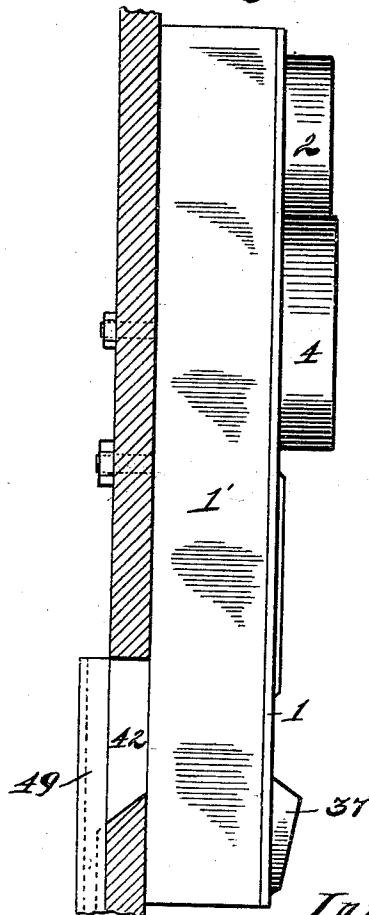


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

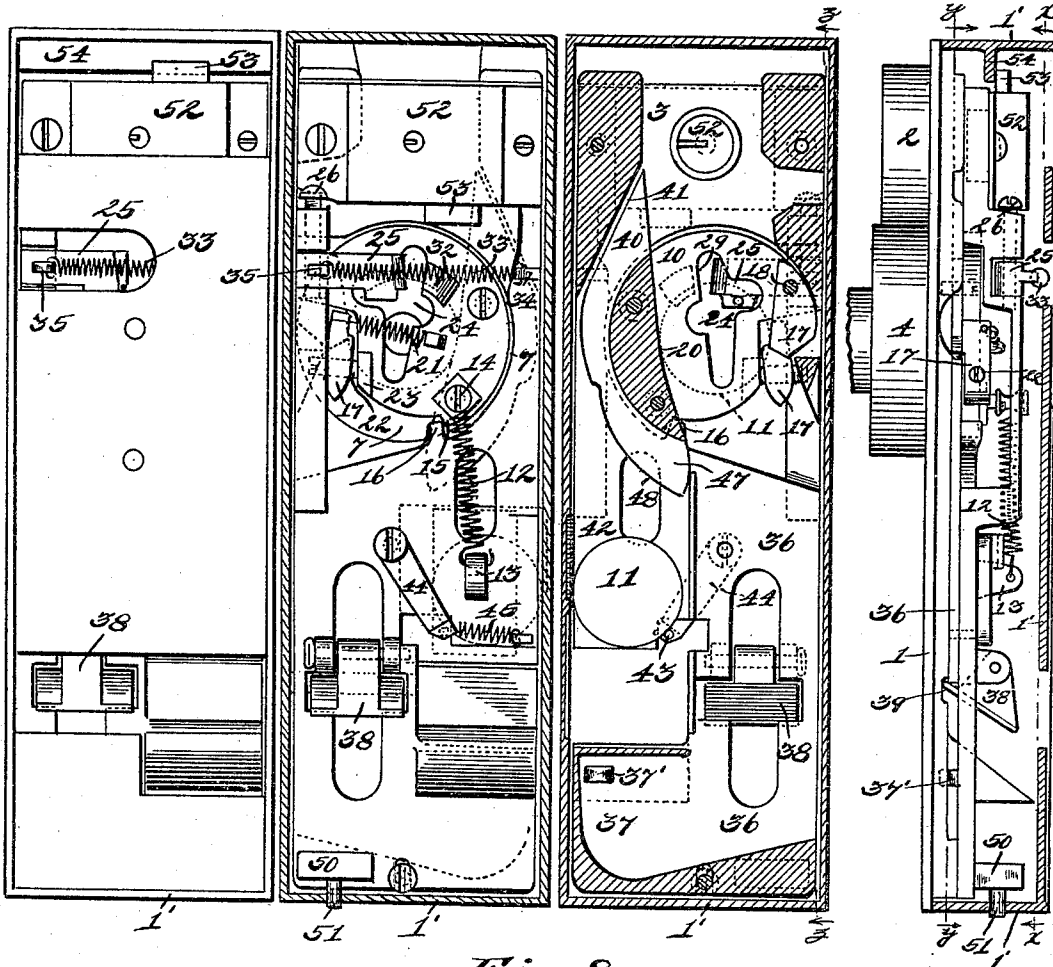


Fig. 8.

Fig. 9.

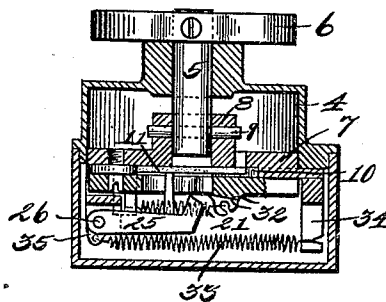
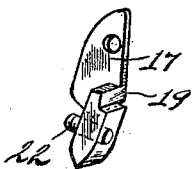
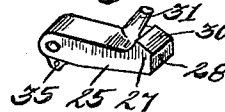


Fig. 10.



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FRANK SCHORIK, OF CHICAGO, ILLINOIS.

COIN-DETECTOR.

960,716.

Specification of Letters Patent.

Patented June 7, 1910.

Application filed March 30, 1910. Serial No. 552,311.

To all whom it may concern:

Be it known that I, FRANK SCHORIK, a citizen of the United States, residing at 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.

My invention relates to improvements in coin detectors and has for its object the production of a coin detector which shall be simple of construction and efficient in operation.

The invention consists in the combination and arrangement of parts hereinafter described and claimed.

The invention will be more readily understood by reference to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a perspective view of a piano provided with a coin detector embodying my invention, Fig. 2, an enlarged front elevation of the detector, Fig. 3, a side elevation of the detector, Fig. 4, a rear elevation of the detector, Fig. 5, a section on line $x-x$ of Fig. 7, Fig. 6, a section on line $y-y$ of Fig. 7, Fig. 7, a section on line $z-z$ of Fig. 6, Fig. 8, a detail section of the operating member of the device, Fig. 9, a perspective view of the retaining pawl employed in the device, and Fig. 10, a perspective view of the locking dog employed in the device.

The preferred form of construction as illustrated in the drawings comprises a suitable box or casing 1' provided with a suitable cover plate 1. At its upper forward portion the cover 1 is provided with a boss 2 having a recess therein adapted to receive the coin destined to operate the machine, in this case a five cent piece or "nickel". The recess in boss 2 leads to a coin receiving chute 3. Below chute 3 the cover 1 is provided with a boss 4 in which a shaft 5 is rotatably mounted. At its outer end shaft 5 carries an operating handle 6 and at its inner end a plate 7 secured thereto by means of a hub 8 and pin 9. The plate 7 is provided with a coin chute 10 registering with receiving chute 3 when said member is in normal position and adapted to contain a nickel or similar object 11. A spring 12 secured to a stationary lug 13 and a screw 14 on member 7 serves to yieldingly hold the member 7 in normal position with the projection 15 thereon contacting with the stationary stop 16. A retaining pawl 17 is pivoted to member 7

at 18 and is provided with a surface 19 adapted to cooperate with the side 20 of chute 10 to retain a deposited coin in said chute. A spring 21 serves to normally hold the pawl 17 in its operative position and a set screw 22 adapted to contact with a shoulder 23 on member 7 serves to nicely regulate the distance between surface 19 and side 20, so that a nickel will be retained in said coin chute but a coin of very slightly smaller diameter will pass therethrough.

In its upper portion member 7 is provided with a notch 24 adapted to receive a locking dog 25 pivoted to a stationary support by a pivoted screw 26. The dog 25 is provided with an inward projection 27 adapted to enter the upper portion of slot 24 and having a locking surface 28 adapted to cooperate with the side 29 of slot 24 to lock member 7 against rotation. The end 30 of projection 27 is beveled as shown and pawl 25 is provided with a pin 31 projecting into notch 24 to contact with a nickel 11 retained in coin chute 10. The relative arrangement is such that when pin 31 contacts with the coin, as shown in Fig. 8, the surface 30 is raised to a position where it is adapted to ride upon the edge of locking surface 29 upon operative rotation of member 7 to force dog 25 out of notch 24, an inclined land 32 being provided on member 7 to continue this outward movement of dog 25 during further rotation of member 7. A spring 33 secured to stationary projection 34 and to lug 35 on dog 25 serves to yieldingly hold said dog in engagement with notch 24, the arrangement being such that when plate 7 is in normal position the side of projection 27 opposite to locking surface 28 rests upon the side of notch 24 opposite to locking side 29 to hold pin 31 from obstructing coin chute 10. By this construction, it will be observed that, upon deposit of a nickel in coin chute 10, the member 7 is rendered free to rotate since the pin 31 rides upon the nickel 11 until inclined surface 30 strikes the edge of locking surface 29, whereupon dog 25 is operated to permit further rotation of member 7, but that if no nickel is present in coin chute 10 the projection 27 will be drawn into notch 24 upon attempt to rotate plate 7 so that locking surface 28 will engage locking surface 29 and thus securely lock member 7 against rotation.

A delivery chute 36 is provided on cover 1 to register with coin chute 10 when the

latter is in normal position so that if a coin or slug, smaller in diameter than a nickel, is deposited in coin chute 10 it will pass through said chute into delivery chute 36 whence it will pass to a delivery receptacle 37 to which chute 36 leads. Delivery receptacle 37 is provided with an outwardly extending lug 37' adapted to contact with the upper edge of a slug or coin and cause the same to tilt outwardly which facilitates removal. A guard 38 is pivoted to swing across chute 36 and into a recess 39 in the wall thereof and serves to prevent insertion of a wire or other similar thing into chute 36. By this construction it will be observed that a coin of less diameter than a nickel will pass freely through the device and be delivered to the depositor in receptacle 37. A coin larger than a nickel cannot be inserted in boss 2 so that only a true nickel or a slug of exactly the same size as a nickel can be utilized to operate the device.

In order to insure that any true nickel deposited in the device will properly operate the same, I provide on plate 7 an upwardly extending stop member 40 adapted to traverse chute 3 on operative movement of plate 7 and intercept any coin or slug deposited in chute 3 during the operative movement of plate 7. The rearward side 41 of projection 40 is inclined as shown, so that upon the inoperative movement of plate 7 a retained coin or slug in chute 3 will be automatically elevated to pass over said stop and pass into coin chute 10 where it will operate as before.

A retaining chute 42 is arranged on cover 1 in position to register with coin chute 10 at the end of the operative movement of plate 7 and pawl 17 projects from member 7 sufficiently to contact with stop 16 to cause release of a coin retained in the coin chute 10 at the end of the operative movement of member 7. Thus a coin retained in chute 10 will be automatically discharged into chute 42 upon the operative movement of plate 7. The passage of a coin through chute 42 is obstructed by a pin 43 carried by a pivoted arm 44 and projecting through a slot in a wall of said chute. Arm 44 is held in operative position by means of a spring 45. A glass or other transparent plate 46 is set in the wall of chute 42 so as to render a coin retained by pin 43 visible from the outside. Plate 7 carries a projection 47 having an inclined cam surface 48 adapted to contact with a coin resting on top of the coin retained by pin 43, so that upon the reverse movement of plate 7 cam surface 48 will operate against a coin supported on top of the visible coin to cause the discharge of the latter. Thus it will be observed that the first coin deposited will be retained by pin 43 in a position for inspection until a coin is visible on top thereof by the next operative

movement of said plate whereupon the first coin will be dislodged and the new coin immediately placed in visible position for inspection. This provision will tend to discourage operation of the machine by slugs or spurious coins. Chute 42 leads to another chute 49 located within a piano or other instrument and arranged to conduct the coin to automatically operating mechanism therefor (not shown). By this arrangement it will be observed that a true nickel of correct size will be retained in the detector and delivered to chute 49, thus serving to operate the instrument as will be readily understood by those skilled in the art.

At the bottom of cover plate 1 is provided a lug 50 carrying a downwardly extending pin 51 arranged to project into a perforation provided in the bottom of casing 1'. At its top plate 1 carries a lock 50 secured to form the back of the recess in the boss 2 and arranged with its key-hole accessible through said recess. The bolt 53 of said lock is arranged to engage a lug 54 on casing 1' to lock cover plate 1 in position. It will be observed that all of the operative parts are carried by cover plate 1 which may be readily removed from the casing for inspection or repair.

While I have illustrated and described the preferred form of construction for carrying my invention into effect this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the exact details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a device of the class described, the combination with a movable member; a coin chute having a handle in one side adapted to admit a dog to contact with a coin therein; a pawl adapted to retain a coin in said chute opposite said notch; a dog adapted to enter said notch to lock said member against movement but to release said member when contacting with a coin held in said chute; means for actuating said pawl to release said coin upon movement of said member; and mechanism adapted to be actuated by said released coin, substantially as described.

2. In a device of the class described, the combination with a rotatable member; a coin chute having a notch in one side adapted to admit a dog to contact with the coin therein; a pawl adapted to retain a coin in said chute opposite said notch; a dog adapted to enter said notch and lock said member against rotation but to release said member when contacting with a coin held in said chute; means for actuating said pawl to re-

lease said coin upon rotation of said member; and mechanism adapted to be actuated by said released coin, substantially as described.

5 3. In a device of the class described, the combination with a rotatable member provided with a coin chute having a notch in one side adapted to admit a dog to contact with a coin therein; an adjustable spring
10 held pawl carried by said member and adapted to retain a coin in said chute opposite said notch; a stop adapted to contact with said pawl to release said coin upon rotation of said member; a spring held dog
15 pivoted to a stationary support and adapted to enter said notch to lock said member against rotation but to release said member when riding on a coin held in said chute; a delivery chute registering with said coin
20 chute when said member is in inoperative position; a retaining chute adapted to receive a coin from said coin chute when released by said pawl; and mechanism adapted to be actuated by said released coin, substantially as described.
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4. In a device of the class described, the combination with a rotatable member provided with a coin chute having a notch in

one side adapted to admit a dog to contact with a coin therein; an adjustable spring
30 held pawl carried by said member and adapted to retain a coin in said chute opposite said notch; a stop adapted to retain a coin in said chute opposite said notch; a stop adapted to contact with said pawl to release said coin upon rotation of said member; a spring held dog pivoted to a stationary support and adapted to enter said notch, the said dog being provided with a locking
35 surface adapted to engage a side of said notch when no coin is in said chute but to disengage said side when riding on a coin in said chute; a delivery chute registering with said coin chute when said member is in normal position; a retaining chute adapted
40 to receive coins from said coin chute when released by said pawl; and mechanism adapted to be actuated by said released coin, substantially as described.
45

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK SCHORIK.

Witnesses:

JANET E. HOGAN,
JOSHUA R. H. POTTS.