

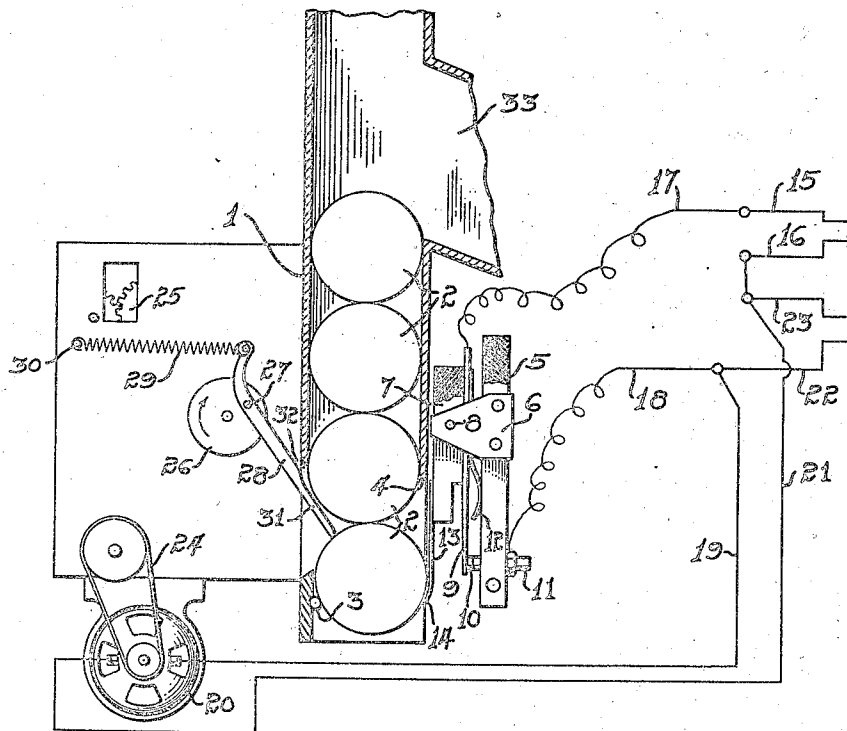
Dec. 22, 1931.

G. B. SLUSSER

1,837,684

COIN CONTROLLED MECHANISM

Filed Jan. 23, 1930



Inventor

George B. Slusser

By

Owen & Owen

Attorneys

UNITED STATES PATENT OFFICE

GEORGE B. SLUSSER, OF VAUGHNSVILLE, OHIO

COIN CONTROLLED MECHANISM

Application filed January 23, 1930. Serial No. 422,907.

This invention relates to mechanism adapted to be controlled by an inserted coin or the like, preferably through the medium of a switch, which is acted upon by the coin to close an electric circuit.

The general object of the invention is to provide an improved device of this character, in which the coin closes the switch and holds it closed until the coin is caused to release the switch by the action of suitably timed mechanism operated by an electric current passing through said switch. The device is so arranged that a plurality of coins may be inserted at one time and as soon as the operation initiated by one of these coins has been completed, the next coin is in position to hold the switch closed until the completion of the next operation. If more than a predetermined number of coins are inserted at one time, however, all coins in excess of such number will be immediately returned to the operator through a supplemental outlet opening from the chute which leads to the switch.

The important features of my invention and its mode of operation will be more specifically explained in connection with the accompanying drawing, in which the single figure is a view partly in elevation and partly in section having a diagram of the wiring associated therewith.

As illustrated in the drawing, the device to which my invention relates comprises a chute 1 which is adapted to receive a number of coins 2. At one side of the chute near the lower end thereof, is a stop pin 3 against which each successive coin lodges. The opposite side of the chute terminates some distance above the pin 3 as indicated at 4.

An insulating block 5 is located near the side of the chute and has a bracket 6 secured thereto and extending toward the chute. An insulating member 7 is pivoted in the bracket 6 as indicated at 8, and carries a switch blade 9 which carries a contact 10 adapted to engage a fixed contact 11 secured in the block 5. The switch 9, however, is adapted to be held normally open by a comparatively light spring 12 which bears against the block 5. A spring finger 13, stronger than the spring 12, is secured to the insulating member 7 and extends

downwardly adjacent the open side of the chute, terminating in a curved end 14 which is in opposed relation to the stop pin 3.

When the chute 1 is empty, the spring 12 holds the switch 9 open. The first coin inserted lodges between the pin 3 and the curved end 14 of the spring finger and closes the switch against the comparatively light resistance of the spring 12. One or more coins, however, up to the capacity of the chute, are not sufficient to overcome the resistance of the spring 13, so as to pass the same, unless ejected by some force other than gravity.

Electric current is supplied by wires 15 and 16. When the switch 9 is closed a circuit is completed from the wire 15 through wire 17, switch 9, contacts 10 and 11, wires 18 and 19, motor 20 and wire 21, which is connected to the wire 16. Thus the motor 20 is driven as long as the switch 9 is closed. Branch wires 22 and 23 lead from the wires 18 and 21 respectively to a radio receiving set, phonograph, music box, or other electrically operated device, which will be operated only as long as the switch 9 remains closed.

The motor 20 is adapted to drive a timing mechanism by means of a suitable drive connection 24. This timing mechanism includes a train of speed reduction gearing 25 which rotates a crank disc 26 in the direction indicated by the arrow. This disc 26 is provided with a wrist pin 27 on which an ejector arm 28 is pivoted. The rear end of this ejector arm is connected by suitable means, such as the spring 29, to a fixed point 30, so that as it is carried about the axis of the disc 26, the spring 29 has a tendency to hold the free end 31 of the ejector arm toward the chute 1. The side of the chute above the pin 3 is formed with an opening 32 through which the free end 31 of the ejector arm is projected.

From the foregoing description, it will be seen that as a coin is inserted in the chute 1, it closes the switch 9 and sets the motor 20 in operation. After a predetermined period of time, the operation of the motor brings the ejector arm 28 into the position shown in the drawing, in which it engages the lowermost coin 2 and forces the same past the

stop 3 in opposition to the spring 13, thus releasing the switch 9 and allowing it to open under the influence of spring 12 unless there is another coin in the chute. If there is another coin in the chute, it immediately replaces the ejected coin and retains the switch in closed position until the motor 20 and ejector arm 28 are moved through another cycle. This operation continues as long as there is a coin remaining in the chute.

It will be seen, therefore, that a number of coins may be placed in the chute simultaneously up to the limit of its capacity and the coin controlled mechanism will operate automatically for a period of time in proportion to the number of coins inserted. If, however, coins are inserted beyond the capacity of the chute, they will be deflected from the chute through a branch opening 33 and will be returned to the operator.

While I have shown and described in considerable detail the preferred form of the invention, it is to be understood that the same may be modified within the scope of the appended claims, without departing materially from the spirit of the invention.

What I claim is:

1. In a coin controlled device, a coin chute, a switch normally in inoperative position and movable to operative position by a coin inserted in the chute, said switch having a resilient portion engageable by the coin, means co-operating with said resilient portion to hold the coin with the switch in operative position, an ejector arm on the opposite side of the chute from said switch, and means dependent upon said switch to move said arm through a predetermined cycle and project it into the chute behind the coin and forcibly eject the coin past the resilient portion of the switch.

2. In a coin controlled device, a coin chute, a switch normally in inoperative position and movable to operative position by a coin inserted in the chute, said switch having a resilient portion engageable by the coin, a fixed stop opposed to said resilient portion and co-operating therewith to define a restricted outlet for holding the coin with the switch in operative position, an ejector arm on the opposite side of the chute from said switch, and means dependent upon said switch to move said arm through a predetermined cycle and project it into the chute behind the coin and forcibly eject the coin between said stop and the resilient portion of the switch.

3. In a coin controlled device, a coin chute, a switch movable to operative position by a coin inserted in said chute, means co-operating with the switch to hold the coin with the switch in operative position, mechanism dependent upon said switch for its operation and including a rotatable member, an ejector arm pivoted eccentrically on said rotatable member and projectable into the chute as the

member rotates, and means including a connection to the rear part of the ejector arm to guide the front end of said arm into engagement with the coin to forcibly eject the same.

4. In a coin controlled device, a coin chute, a switch normally in inoperative position and movable to operative position by a coin inserted in the chute, said switch having a resilient portion engageable by the coin, means co-operating with said resilient portion to hold the coin with the switch in operative position, mechanism dependent upon said switch for its operation and including a rotatable member, an ejector arm pivoted eccentrically on said rotatable member and projectable into the chute as the member rotates, and means including a connection to the ejector arm behind its pivot to guide the front end of said arm into engagement with the rear side of the coin, to forcibly eject the same past the resilient portion of the switch.

5. In a coin controlled device, a coin chute, a switch normally in inoperative position and movable to operative position by a coin inserted in the chute, said switch having a resilient portion engageable by the coin, a fixed stop opposed to said resilient portion and cooperating therewith to define a restricted outlet for holding the coin with the switch in operative position, mechanism dependent upon said switch for its operation and including a rotatable member on the opposite side of the chute from the switch, an ejector arm pivoted eccentrically on said rotatable member and projectable into the chute behind the coin as the member rotates, and means including a connection to the ejector arm behind its pivot to guide the front end of said arm into engagement with the rear side of the coin to forcibly eject the same between said stop and the resilient portion of the switch.

In testimony whereof I have hereunto signed my name to this specification.

GEORGE B. SLUSSER.