March 9, 1937. C. H. WHEELER 2,072,972

COIN COLLECTING APPARATUS

Original Filed May 17, 1935

FIG. 1

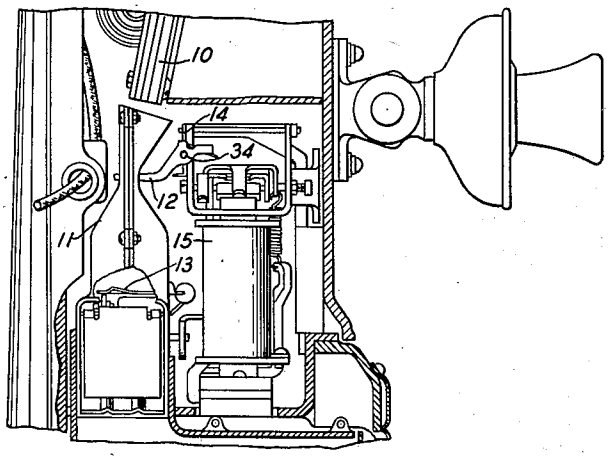


FIG. 2

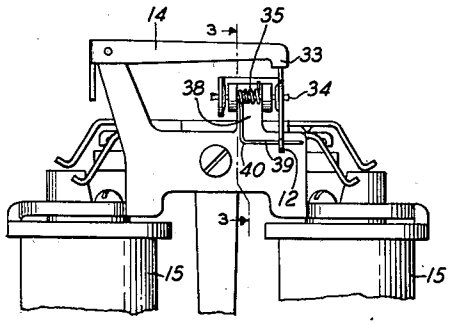
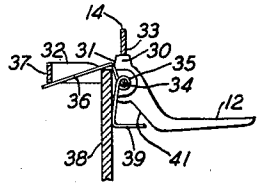


FIG. 3



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COIN COLLECTING APPARATUS

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Original application May 17, 1935, Serial No. 21,932. Divided and this application February 19, 1936, Serial No. 64,690

2 Claims. (Cl. 194—45)

This invention relates to coin collecting apparatus particularly of the type for use in a telephone pay station.

In the usual type of telephone coin collector as exemplified in the disclosure of the O. F. Forsberg U. S. Patent 1,043,219, issued November 5, 1912, deposited coins after striking a coin trigger are temporarily retained upon a coin trap and subsequently directed into a collect chute or a refund chute depending upon whether the desired telephone connection is established. The purpose of the coin trigger is to close a circuit to place under the control of the remote operator a polarized electromagnet which when operated in one direction refunds the deposited coin and when operated in the opposite direction collects the deposited coin. The coin trigger is usually pivoted externally of the coin passage and is normally maintained in its non-operated position by a suitable counterbalance. The arrangement is also such that the coin trigger after operation by a deposited coin will not be restored until after the coin magnet has been operated.

An object of the present invention is to minimize the danger of false operation of the trigger in the absence of a deposited coin and further to reduce the danger that the trigger will fail to restore at the proper time.

This application constitutes a division of my application Serial No. 21,932, filed May 17, 1935, on coin collecting apparatus which issued as U. S. Patent 2,064,280 on December 15, 1936.

In accordance with this invention a resilient stop is provided to limit both the upward and the downward movement of the coin trigger. In the preferred form of this invention this is accomplished by a helical spring wrapped around the pivoting pin of the trigger, each end of the spring serving as a resilient stop for trigger movement in one direction.

Referring to the drawing,

Fig. 1 is a fragmentary view partly in section of the central part of a telephone coin collector utilizing a coin trigger arrangement in accordance with this invention;

Fig. 2 illustrates the coin trigger mounting in greater detail; and

Fig. 3 is a view partly in section taken along the line 3—3 of Fig. 2.

Fig. 1 shows only a portion of a telephone coin collector of the type disclosed in the above-mentioned Forsberg patent, to which reference is made for further details as to its construction and method of operation. As explained in the Forsberg patent, a coin deposited by a subscriber after passage through a coin chute 10 drops into a coin hopper 11, actuates a coin trigger 12 and is temporarily retained upon a coin trap 13. The actuation of trigger 12 releases the spring pressed lever 14 to enable a circuit to be closed through the windings of a polarized relay 15 whereby the remote central office operator by an arrangement disclosed in the Forsberg patent may subsequently cause the coin on trap 13 to be directed into a refund chute or a collect chute depending upon the polarity of the current applied to the relay 15.

As previously stated, one of the important functions performed by a deposited coin is to strike trigger 12 and cause a circuit to be established through the windings of electromagnet 15. The spring pressed lever 14 rests on a shoulder 30 formed on the coin trigger just above its pivoting axis. When a coin strikes trigger 12, knocking the trigger downwardly, the end piece 33 of lever 14 slides off shoulder 30 into a recess 31 formed in the counterbalance 32 of the trigger. This lowering of arm 14 causes contact springs to be closed to establish the desired circuit and the subsequent operation of relay 15 as described in the Forsberg patent raises arm 14 upwardly a sufficient distance to allow trigger 12 to restore so that when the relay is deenergized lever 14 will again rest upon shoulder 30 of the trigger.

In order to minimize the danger of false operation of the trigger by blows on the housing and to minimize sticking troubles in its operated position, a resilient stop is provided to limit both the upward and the downward movement of the trigger. This is preferably accomplished by a helical spring, each end of which serves as a resilient stop for movement in one direction. As shown in Figs. 2 and 3 the pivoting pin 34 has wrapped around it several turns of a wire 35. One end of wire 35 comprising a straight portion 36 projects over the upper edge of the trigger support 38 and under arm 37 of the counterbalance to provide a resilient stop for the trigger in its restoring movement. The other end of wire 35 projects downwardly from the pivoting pin 34 and is then bent at right angles to provide a substantially horizontal arm 39 which at the point 40 is pressed against the face of support 38, but then is bent outwardly in a horizontal plane so that the main portion of arm 39 lies a substantial distance away from the face of support 38. As will be apparent from Figs. 2 and 3, this projecting wire 39 forms a resilient stop for the trigger in its downward movement since portion 41 of

trigger 13 will strike wire 39 when the trigger has been knocked downwardly by a deposited coin.

While the form of this invention described above is preferred, it is understood that the invention may possess other embodiments commensurate with the scope of the appended claims.

What is claimed is:

1. A telephone coin collector comprising a coin chute, a support external to said chute, a coin trigger having an arm projecting into said chute for actuation by a deposited coin and having a counterbalance, a pin for pivotally mounting said trigger on said support, a projecting member on said trigger located above the pivoting axis of said trigger, a spring pressed lever bearing on said member and adapted to be released when said trigger is actuated by a deposited coin, said lever in its released position preventing said trigger from restoring to normal, and a helical wire wrapped around said pin and having one end acting as a cushioning spring normally contacting with said counterbalance to prevent sudden jars from releasing said lever, the other end of said wire acting as a cushioning spring stop for movement of said trigger arm when the trigger is actuated by a deposited coin.

2. A telephone coin collector comprising a coin chute, a support external to said chute, a coin trigger having an arm projecting into said chute for actuation by a deposited coin and having a counterbalance, a pin for pivotally mounting said tripper on said support, a projecting member on said trigger located above the pivoting axis of said trigger, a spring pressed lever bearing on said member and adapted to be released when said trigger is actuated by a deposited coin, said lever in its released position preventing said trigger from restoring to normal, and unitary means having one arm providing a resilient support for said counterbalance when said trigger is in its unoperated position to prevent sudden jars from releasing said lever, said unitary means having a second arm providing a resilient stop for said trigger when said trigger is actuated by a deposited coin.

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