

April 14, 1936.

P. E. MILLS ET AL

2,037,174

COIN COLLECTOR

Filed July 11, 1935

2 Sheets-Sheet 2

FIG. 4

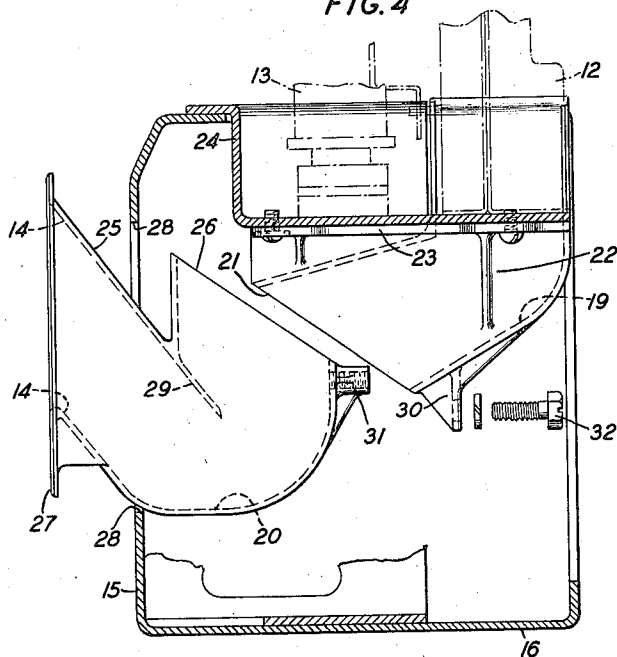


FIG. 5

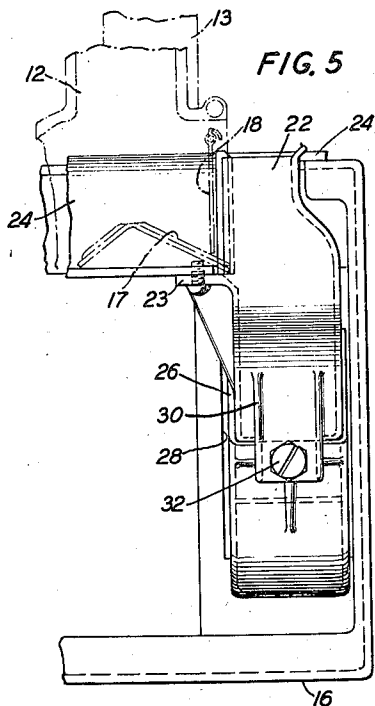
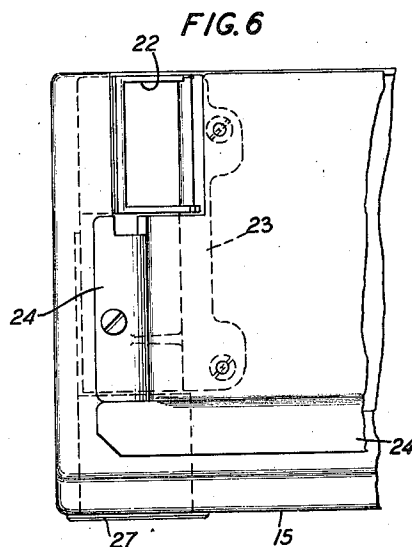


FIG. 6



INVENTORS: P. E. MILLS
O. A. SHANN

BY

Butt Jackson

ATTORNEY

UNITED STATES PATENT OFFICE

2,037,174

COIN COLLECTOR

Percy E. Mills, Towaco, N. J., and Oscar A. Shann,
Bayside, N. Y., assignors to Bell Telephone
Laboratories, Incorporated, New York, N. Y., a
corporation of New York

Application July 11, 1935, Serial No. 30,788

5 Claims. (Cl. 232—57.5)

This invention relates to coin collectors, particularly refund chutes for use with such apparatus at a telephone pay station.

In telephone coin collectors of the prepayment type as disclosed, for example, in the O. F. Forsberg U. S. Patent 1,043,219, it is usual to temporarily retain deposited coins upon a coin trap within a coin hopper and subsequently discharge the coins into a collect chute leading to a cash compartment or into a refund chute depending upon whether the desired telephone connection is secured. The refund chute extends from the coin hopper to an opening in a vertical wall of the coin collector housing; and immediately behind and below this opening a coin pocket is formed in the refund chute where the discharged coins may be readily recovered by the subscriber. It is customary to provide a baffle plate extending rearwardly and downwardly from the upper edge of the refund opening in the housing to prevent tampering with the coin refund mechanism through the refund chute. An escutcheon plate is also generally provided external of the housing and surrounding the refund opening to improve its appearance.

Such a coin collector when in service, particularly in exposed locations, frequently requires the refinishing or replacing the escutcheon plate and the coin pocket in order to maintain a satisfactory external appearance. Refund chutes for telephone coin collectors as heretofore constructed have had the escutcheon plate, the baffle, the top, bottom and side walls of the chute of separate parts suitably assembled and supported by the housing. With such a construction it is necessary to take the entire instrument to a repair shop and dismantle it whenever the escutcheon plate or the bottom wall of the refund chute requires refinishing or replacement.

An object of this invention is to simplify the construction and reduce the cost of manufacture of a coin collector refund chute while permitting replacement of certain parts thereof with only a slight interruption in service.

In accordance with a preferred form of this invention the main refund chute for a telephone coin collector is made of only two separate portions, each of which may comprise a one-piece die casting. One portion may comprise the upper part of the refund chute leading from the coin hopper downwardly to a point adjacent the baffle and the coin pocket. The other portion may comprise the escutcheon plate, the baffle, the coin pocket and the side walls therefor. The upper portion may be more or less permanently attached to supports within the housing while the lower portion may be fastened to the upper portion by any suitable means. Thus, the lower portion may be held in place by a screw in a bracket attached to the bottom wall of the up-

per portion of the refund chute. Such a fastening screw in the usual type of coin collector as shown in the above-mentioned Forsberg patent may be readily accessible by opening the cash compartment door which is located adjacent the refund chute opening. By removing this screw the lower portion of the refund chute with the baffle and escutcheon plate may be removed through the refund opening in the lower housing and a new lower portion inserted through said opening and fastened in place with only a slight interruption in the service rendered by the coin collector.

Referring to the drawings

Fig. 1 is a side view of a telephone coin collector with a portion of a side wall removed to disclose the general location of the refund chute of this invention;

Fig. 2 is an enlarged front view of the refund chute opening in the lower housing and the flange surrounding the same;

Fig. 3 is an enlarged side view in section of the refund chute;

Fig. 4 is similar to Fig. 3 except that the front portion of the refund chute is shown partially removed from the housing;

Fig. 5 is a rear view of the refund chute taken along the line 5—5 of Fig. 3; and

Fig. 6 is a top plan view taken along the line 6—6 of Fig. 2.

Fig. 1 discloses a telephone coin collector of the general type described in the above-mentioned Forsberg patent. A coin after deposit in the coin gauge 10 passes through a coin chute 11 and is temporarily held in a coin hopper 12 for subsequent collection or deposit. If for any reason the user of the instrument is entitled to a refund of the deposited coin a polarized relay 13 is operated in a well-known manner to direct the coin into a refund chute leading to an opening 28 in the front wall 15 of the lower housing 16. The present invention is concerned with the construction of this refund chute which is shown more clearly in the figures subsequent to Fig. 1.

When the pivoted coin trap (not shown) within the coin hopper 12 is actuated to coin refunding position, the coin as described in the Forsberg patent slides down the bottom wall 17 of the coin hopper (Fig. 5), passes the shutter 18 and falls into the upper part of the refund chute, sliding down bottom wall 19 thereof until it reaches a coin pocket 20 where it may be recovered by means of finger opening 14.

The upper section 22 of the refund chute has at its upper end a side wall opening registering with the coin refund opening of coin hopper 12 and the lower end of this section 22 terminates in an opening 21. Section 22 is mounted within the collector housing by a horizontal flange 23 fas-

tened by screws to the bottom of the usual mechanism tray 24.

The lower section 25 of the refund chute has an opening 26 registering with opening 21 in the upper section and the other end of section 25 comprises an opening 14 with a flange 27 external of the housing and covering the edges of the refund opening 28 in the lower housing so that flange 27 serves as an escutcheon plate for said opening. The upper wall of section 25 has a downwardly and rearwardly inclined extension 29 to partially close the chute above coin pocket 20 so as to conceal the upper part of the refund chute from opening 14 thereby serving the same function as the usual baffle plate.

As previously stated, it is preferable that the lower section of the refund chute be mounted within the housing in such a way that an old lower section may be replaced by a new lower section with a minimum of service interruption at such times, for example, as when the external flange 27 or coin pocket 20 has become badly tarnished. One mounting arrangement for the lower section is disclosed in the drawings. The upper chute section 22 has a downwardly projecting bracket 30 through which a fastening screw 32 passes into a rearwardly projecting shoulder 31 on the back wall of the lower chute section, the two sections being so dimensioned that when screw 32 is in place flange 27 is held firmly against the edge of opening 28 in the front wall of the lower housing. Hence no other screws or rivets will be required to hold flange 27 in place as is the case with the usual escutcheon plate which forms a part separately mounted from the refund chute proper.

When it is desired to remove the lower chute section 25 from a coin collector in service screw 32 may be made easily accessible by removing the door from the adjacent cash compartment opening 33. When screw 32 has been loosened by a tool inserted through opening 33 the entire lower section 25 of the refund chute may be removed through opening 28 in the lower housing and a new part readily inserted through the same opening 28 and fastened in place by screw 32. Fig. 4 shows the lower section 25 partially removed from the lower housing.

It will, therefore, be readily understood that the lower section 25 by means of the construction of this invention may be removed and a new lower section substituted therefor in a relatively short interval of time and without the necessity of removing the entire collector to a repair shop to make the replacement.

In order to simplify manufacture, each chute section 22, 25 may be a one-piece die casting although other forms of construction may be used if desired.

What is claimed is:

1. A coin collector comprising a housing having a refund opening in a vertical wall thereof, a coin hopper for receiving deposited coins and a refund chute leading from said hopper to said opening, the lower portion of said chute comprising a coin pocket formed in said chute adjacent and below said opening, a baffle plate extending rearwardly and downwardly from the upper edge of said opening to form a partial closure between said opening and said hopper, and an escutcheon flange external of said housing and surrounding said opening, said lower por-

tion with said pocket, said flange and said baffle being of unitary construction, and means for removably fastening said lower portion in place as a continuation of the upper portion of said chute, said lower portion being removable through said opening when said fastening means is released.

2. In combination, a coin collector housing having a refund opening in a vertical wall thereof, a coin hopper within said housing for receiving deposited coins, a refund chute of a plurality of sections leading from said hopper to said opening, the parts of each section being integral with each other, one of said sections comprising a coin well adjacent said opening, an escutcheon plate external of said housing and surrounding said opening, and a baffle plate extending downwardly and rearwardly from the upper edge of said opening, and means located solely within said housing for fastening said one section in place as a continuation of another section of said chute, said one section being removable through said opening when said fastening means is released.

3. In combination, a coin collector housing having a refund opening in a vertical wall thereof, a coin hopper within said housing for receiving deposited coins, a refund chute comprising an upper section and a lower section to provide a coin passage from said hopper to said opening, said lower section comprising a one-piece die casting including as parts of the same casting a coin well adjacent said opening and a baffle plate extending rearwardly and downwardly from the upper edge of said opening, and means located solely within said housing for fastening said lower section in place as a continuation of said upper section, said lower section being removable through said opening when said fastening means is released.

4. A coin collector comprising a housing having a refund opening in a vertical wall thereof, a coin hopper for receiving deposited coins and a refund chute leading from said hopper to said opening, the lower portion of said chute comprising a coin pocket formed in said chute adjacent and below said opening, a baffle plate extending rearwardly and downwardly from the upper edge of said opening to form a partial closure between said opening and said hopper, said lower portion with said pocket and said baffle being of unitary construction, and means for removably fastening said lower portion in place as a continuation of the upper portion of said chute, said lower portion being removable through said opening when said fastening means is released.

5. A coin collector comprising a housing having a refund opening in a vertical wall thereof, a coin hopper for receiving deposited coins and a refund chute leading from said hopper to said opening, the lower portion of said chute comprising a coin pocket formed in said chute adjacent and below said opening, and an escutcheon flange external of said housing and surrounding said opening, said lower portion with said pocket and said flange being of unitary construction, and means for removably fastening said lower portion in place as a continuation of the upper portion of said chute, said lower portion being removable through said opening when said fastening means is released.

PERCY E. MILLS.
OSCAR A. SHANN.