July 28, 1936. C. J. PATCHE 2,048,810

TELEPHONE COIN COLLECTOR

Filed Aug. 2, 1935

FIG. 1

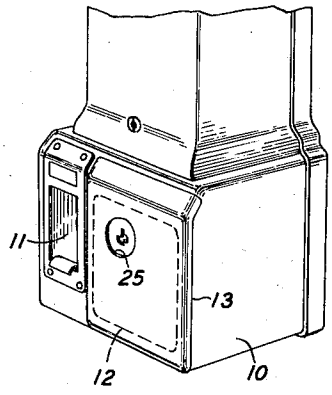


FIG. 2

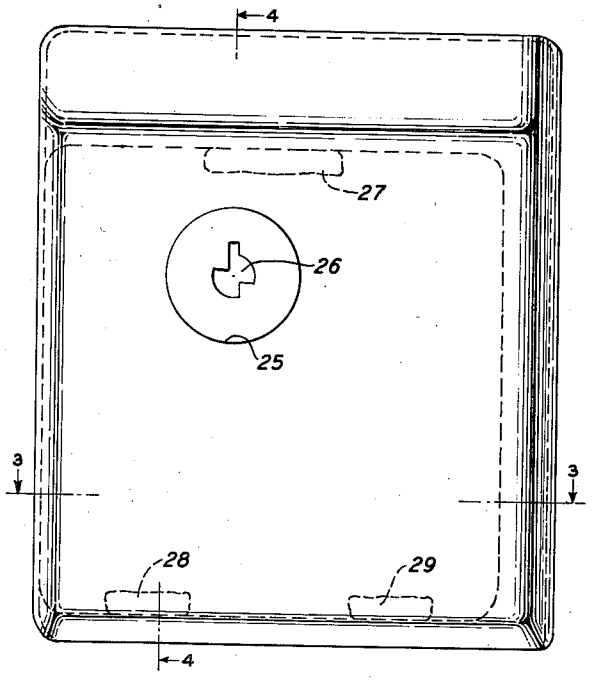


FIG. 3

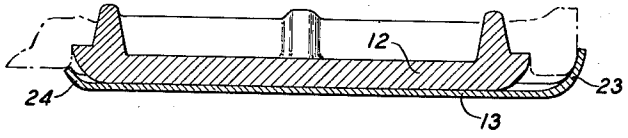
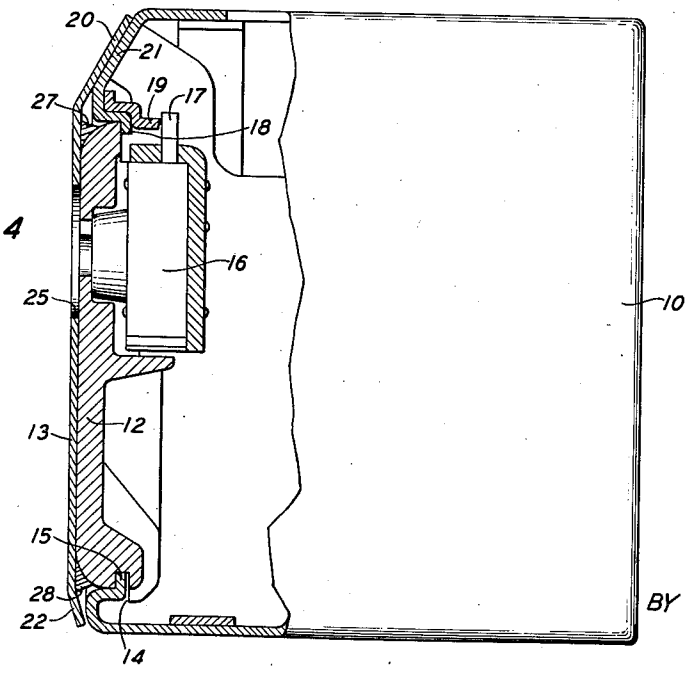


FIG. 4



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TELEPHONE COIN COLLECTOR

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2 Claims. (Cl. 220—55)

This invention relates to telephone coin collectors and more particularly to covers or doors for the cash compartment of such collectors.

Telephone pay stations at which coins are deposited by the user in payment for completed calls are provided with receptacles for receiving the deposited coins. The door of the cash compartment is exposed and unscrupulous persons sometimes break into the boxes, for example, by forcing the wall of the housing around the opening sufficiently far from the door to free the lock bolt or other door fastening means. The point of such attack is frequently between the edges of the door and the rim of the cash compartment opening.

The principal object of this invention is to increase the difficulty of access to the cash compartment of a telephone coin collector by an unauthorized person.

In accordance with the preferred form of this invention, a thin steel plate is fastened to the outside face of the door, the plate being of sufficient size to extend beyond the edges of the door and therefore cover any crack between the door opening and the edges of the door. The purpose of this plate is not to make the cash compartment impregnable but merely to increase the time required to break into the cash compartment. The persons who attempt this kind of robbery apparently are aware of the fact that many of these substations are fitted with a device for sounding an alarm at a remote point whenever the box is tampered with and hence the time element is of the utmost importance to such persons who will be successfully deterred from robbing the box if the time required to break into the box is longer than a few minutes. The primary object of the protecting plate of this invention is therefore to increase the time required in prying the door from its fastening.

Best results have been obtained by using a thin plate of mild steel welded to the outer face of the door only at a relatively few points, the plate being of such thickness and material that the plate will bend under pressure before injuring the door fastenings, such as the strike plate or lock bolt. The standard door has a lug at the bottom forming with the bottom edge of the door an elongated slot into which the lower edge of the cash compartment opening may be seated. The top of the door supports a lock having a bolt engaging a strike plate mounted near the upper edge of the cash compartment opening. Generally, the point of attack on such a door is at the top end of the door near the lock bolt. Preferably the protecting plate for the door extends for a substantial distance above the top edge of the door conforming closely to the slope of the lower housing above the door opening. The plate is preferably welded to the door only for a short distance in the region of the lock and at one or more places near the bottom of the door and each weld should be of such a nature that when pressure is applied the weld will break before the door fastenings are injured. When one now attempts to gain access to the crack between the door and the rim defining the upper edge of the cash compartment opening, this protecting plate must first be gotten out of the way and this will prove extremely troublesome. The fact that the unsupported edges of the plate bend fairly readily seems to add to the difficulty and the time required to render the top edge of the door accessible for forcible entry is too long to render safe the continued presence on the premises of the prospective thief.

Referring to the drawing, Figure 1 is a view in perspective of the lower portion of a telephone coin collector in which the door to the cash compartment is provided with the protecting plate of this invention;

Fig. 2 is a front view of the cash compartment door and its protecting plate;

Fig. 3 is a sectional view of Fig. 2 taken along the line 3—3; and

Fig. 4 is a view partly in section taken along the line 4—4 of Fig. 2.

The usual telephone coin collector as disclosed, for example, in the O. F. Forsberg United States Patent 1,043,219 has a lower housing containing a cash compartment for receiving the deposited coins under the control of the central office. The lower portion of a typical coin collector is shown in Fig. 1 where the front wall of the lower housing 10 is provided with a refund opening 11 and an opening leading to the cash compartment. The cash compartment opening is closed by a door 12 on the outside of which is provided a special plate 13 which extends beyond the edges of the door to protect the crack between the door and the lower housing.

The construction of the door 12 and the plate 13 will be better understood by reference to Fig. 2 and the sectional views of Figs. 3 and 4.

The door 12 may be of any desired construction and may be of drop forged steel having at its lower end an elongated slot 14 into which is seated the lower edge 15 of the cash compartment opening. The upper part of the door supports a lock 16 having a lock bolt 17 and the

door is held firmly in locked position with the upper edge of the door seated in the recess 18 and lock bolt 17 behind strike plate 19. This door 12, for example, may be of the type disclosed in the F. A. Hoyt et al. United States Patent 1,667,804, issued May 1, 1928.

As previously stated, attempts are occasionally made to force the door away from its fastenings by tools inserted in the crack between the edge of the door and the door seat 18 which extends along all four sides of the cash compartment opening. In order to increase the difficulty of such fraudulent practice it is proposed herein to provide a relatively thin metal plate 13 fastened to the outer face of the door, the plate covering and therefore concealing all the meeting edges of the door and the door frame. Thus plate 13 has an upper portion 20 as in Fig. 4 which extends beyond the upper edge of the door and lies snugly against the sloping edge 21 of the lower housing, the plate having a lower portion 22 which covers the lower housing below the cash compartment opening. On the side away from the refund opening 11, plate 13 has a curved portion 23 (Fig. 3) which is bent around the corner of the lower housing for a substantial distance, while plate portion 24 on the remaining side of the door extends only a short distance beyond the door crack because of the adjacent refund opening 11. Plate 13 has a circular opening 25 to render the key slot 26 accessible.

Plate 13 may be fastened to the door in any suitable manner but is preferably arc welded thereto at only a few points, the welded regions being indicated on the drawing by reference numerals 27, 28, and 29, region 27 being adjacent the lock bolt and regions 28 and 29 being adjacent the lug 14 at the bottom of the door. Most of the attacks on the door are made either at the top or bottom edge of the door. The plate 13 is preferably of mild steel about one-sixteenth of an inch thick so that when a tool is forced under the edge thereof the plate will bend and yield to the applied pressure before any of the door fastenings, such as the lock bolt, are injured. Also, if the applied force is continued after the successful bending of one of the protecting edges the adjacent weld should break before any of the door fastenings are injured. For example, in the continued outward bending of section 20 of the plate, weld 27 should be of such a nature that it will yield and be broken before the applied force causes any serious injury to the adjacent door fastening means such as the lock mounting 16, lock bolt 17 or strike plate 19. It will be apparent that if plate 13 were firmly welded to the door, portion 20 after being bent outwardly would merely provide additional leverage for use in forcing off the door unless the weld breaks before the door yields. The observation as to plate portion 20 applies to the other protecting edges such as edge 22.

The location of the welds 27, 28, and 29 is also important in making access to the cash compartment more difficult. The upper edge of weld 27 as viewed in Fig. 4 preferably should be in substantial alignment with the upper edge of the door. Thus, when the plate portion 20 is bent outwardly it will bend in such a manner that the crack at the upper edge of the door will still be substantially protected by the bent metal and will remain so until the weld 27 has been broken. The same relation should apply to the lower edge of the door and the welds 28 and 29. As a summary it may be stated that the preferred relation of the strengths of the specified parts should be that the plate yield to bending before a weld is broken and a welded region should break before any door fastening means are damaged, that is, the welds should be weaker than the door fastening means and the plate 13, as far as bending pressure is concerned, should be weaker than the welds.

It will be apparent that by the use of such a plate considerable time must be expended in forcing the plate back far enough before operations can be begun on the door proper, thereby offering a substantial deterrent to the person attempting to rob the cash compartment. It should also be noted that this invention can be readily applied to existing telephone coin collectors without substantial or expensive alterations, it being merely necessary to remove the cash compartment door, weld the plate 13 thereto in the specified regions, the welded combination of door and plate then being ready for service after a proper finish has been applied thereto.

While one embodiment of this invention has been disclosed, it is to be understood that alternative forms are contemplated commensurate with the scope of the appended claims.

What is claimed is:

1. In combination, a cash compartment having an opening, a metal door for said opening, a lock on said door having a lock bolt for holding said door in locked condition and a metal plate having certain portions thereof welded to the outer face of said door, said plate extending beyond the major portion of the periphery of said door, said plate being of such metal and such thickness that its outer edges can be bent outwardly without substantial damage to said lock bolt, the welds between said plate and said door being sufficiently weak that the welds will break before a bending force applied to said plate has seriously damaged said lock bolt.

2. In combination, a cash compartment having an opening, a metal door for said opening, a lock on said door having a lock bolt for holding said door in locked condition, a metal plate welded to the outer face of said door at points near the periphery of said door, said plate extending well beyond the periphery of said door, said plate being of such metal and such thickness that its outer edges can be bent outwardly for a substantial distance without breaking any weld between said plate and said door, said welded points being sufficiently weak that the welds will break before the force applied to the plate has seriously damaged said lock bolt.

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