Sept. 1, 1964 F. A. DE GEORGE 3,146,781

COIN DISPENSER

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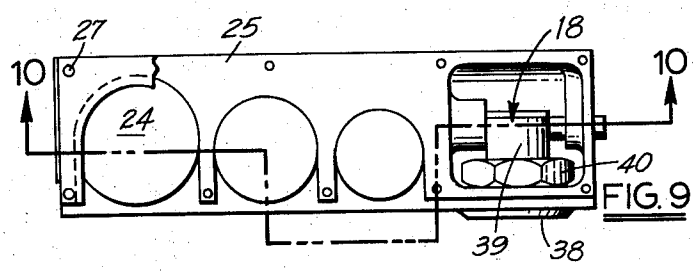


FIG. 9

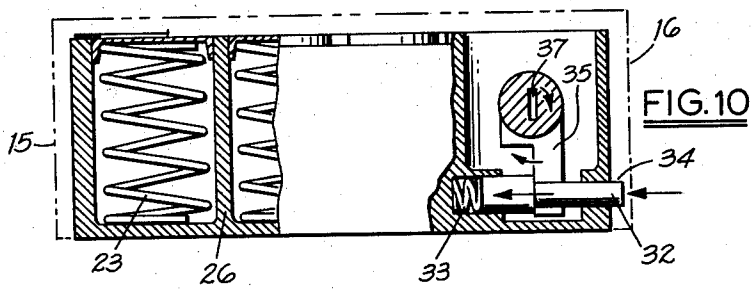


FIG. 10

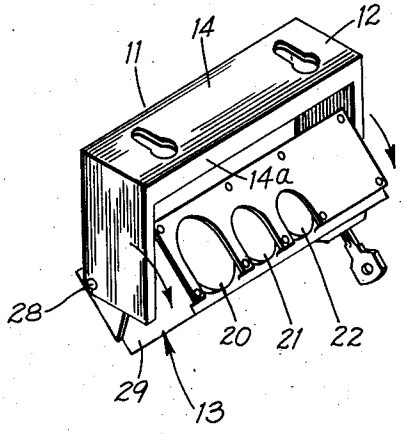


FIG. 1

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COIN DISPENSER

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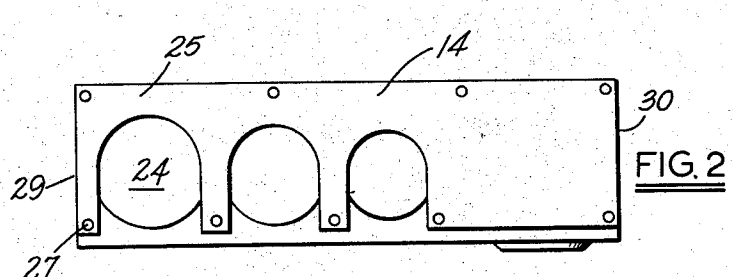


FIG. 2

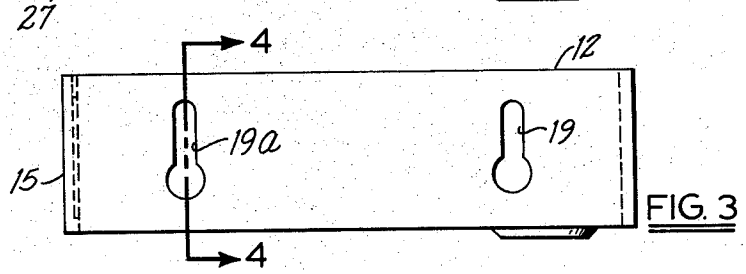


FIG. 3

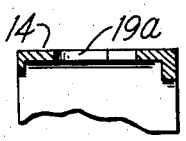


FIG. 4

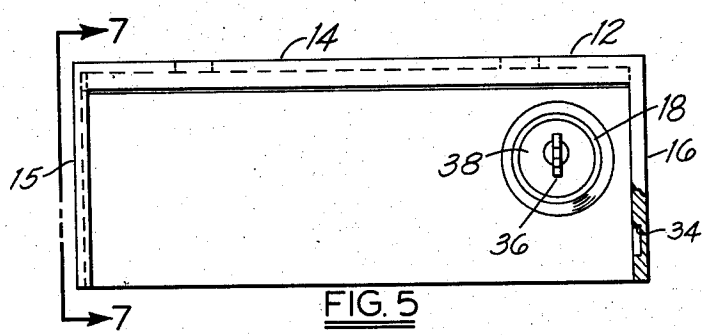


FIG. 5

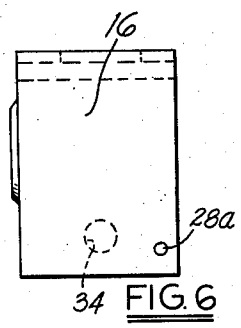


FIG. 6

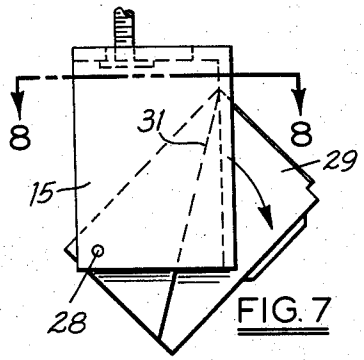


FIG. 7

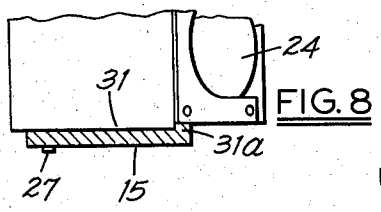


FIG. 8

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3,146,781

COIN DISPENSER

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5 Claims. (Cl. 133—6)

The present invention relates to a coin dispenser and more particularly to a coin dispenser useful in an automobile which has locking features to prevent theft of the coins when the vehicle is parked.

Coin dispensers are well known and are employed extensively by conductors and bus drivers to dispense change. With the increase in travel over toll roads and bridges, this type of dispenser should also be useful in passenger vehicles. However, with regard to passenger vehicles, the problems are quite different than in buses and street cars. In a passenger vehicle, the driver usually starts seeking the toll while the vehicle is still in motion. Often, the driver does not have the experience of a professional bus driver. Also, there is a serious problem of pilferage if a coin dispenser is kept in a parked car. However, although many attempts have been made to provide such a coin dispenser for passenger vehicles, none, as far as I am aware has ever been successful in practice on a large commercial scale.

It has now been discovered that a coin dispenser can be provided for automobiles which is of simple construction, easy to use and to install and which has a locking feature to prevent theft.

Therefore, an object of the present invention is to provide a coin dispenser for automobiles which can be readily locked and unlocked.

Another object of the present invention is to provide a coin dispenser for automobiles which can readily be installed, is of simple construction and can be mass produced.

With the foregoing and other objects in view, the invention resides in the novel arrangement and combination of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention. Furthermore, other objects and advantages will become apparent from the following description taken in conjunction with the accompanying drawings in which:

FIGURE 1 is a top perspective view of the coin dispenser contemplated herein;

FIGURE 2 shows a top view of a coin holder for the coin dispenser shown in FIGURE 1;

FIGURE 3 shows a top view of the housing section for the coin dispenser shown in FIGURE 1;

FIGURE 4 is a sectional view along the lines 4—4 of FIGURE 3;

FIGURE 5 shows a front view of the coin dispenser contemplated herein in the locked position;

FIGURE 6 illustrates a side view of the coin dispenser shown in FIGURE 5, along the lines 5—5 thereof;

FIGURE 7 is a side view illustrating the internal limit stop means contemplated herein;

FIGURE 8 shows a top view of the limit stop means along line 8—8 of FIGURE 7;

FIGURE 9 is a top cut-away view of the coin dispenser contemplated herein; and

FIGURE 10 is a front cut-away view of the coin dispenser contemplated herein along the lines 10—10 of FIGURES 9.

The coin dispenser 11 contemplated herein generally includes a housing section 12 and a coin holder 13 which is pivotly mounted in the housing section in such a manner as to tend to swing outwardly. The housing section 12 has a flat rectangular top 14 and side walls 15 and 16.

Next to one of the side walls 16 is a locking arrangement 18. Disposed between the ends of rectangular top 14 is at least one keyhole aperture 19, preferably there are two or more such apertures as shown in the drawing, the other aperture being numbered 19*a*.

In the concrete embodiment illustrated herein, the coin holder 13 is a rectangular box-shaped member and has a plurality of longitudinally aligned cylindrical compartments 20, 21, 22, so sized and designed as to hold coins of different denominations useful as road and bridge tolls such as 5¢, 10¢, and 25¢. Each compartment includes an axially disposed spring 23 and a flat disc 24 designed to act as a coin rest. At the top of the coin holder and defining each compartment is a solid sheet 25 made of sheet metal or plastic, with cut sections so shaped and sized as to hold the top coin, i.e., the diameter of the cut sections are slightly less than the diameter of the particular coins they are to hold in place. The coins are loaded into each compartment by depressing on the flat disc 24 and are slipped out of the compartment with the index finger. The compartments 20, 21, 22 include upwardly protruding walls 26 extending across the width of the coin holder. These walls are designed to come up almost to the top of the housing top 14 to prevent pilferage of the coins when the coin dispenser is in the closed position. Sheet 25 is fastened to the top of the coin holder and the top of the walls by pins 27. As can be seen in FIGURES 1 and 5, in the open position the coins are retained by sheet 25 and in the closed position they are almost hidden from view by the housing top which has a front lip 14*a*.

The pivotal mounting of the coin holder 13 to the housing section 12 is so arranged that the coin holder 13 will naturally tend to swing outwardly so that the coins can be withdrawn when needed. This is accomplished by having the coin holder mounted eccentrically on the side walls 15 and 16. That is to say, pivots 28 and 28*a* extend through the lower rear of the side walls 15 and 16 engage the corresponding sides 29 and 30 of the coin holder 13 or apertures therein, at the lower rear thereof. The coin holder 13 will therefore tend to swing out until stopped by a diagonal stop 31 extending along one of the side walls, e.g., side wall 29. This diagonal stop 31 which is a diagonal protrusion on the wall of the coin holder engages a corresponding protrusion 31*a* along the inside wall of the housing section.

The coin holder 13 is locked in the housing section by the locking arrangement 18 which is mounted on the inside of the coin holder alongside side wall 16. The locking arrangement has a pin 32 outwardly cocked by a spring 33 so that the pin tends to engage a recess 34 in side wall 16. The pin is moved inwardly by the action of a lever arm 35 which lever arm is in turn moved by the action of the turning a key 36 in lock keyhole 37. As depicted in the drawing, the lock keyhole 37 and lever arm 35 are very much like a number 9 the aperture in the 9 being the keyhole and the long arm of the 9 being the lever arm. When a key is inserted in the keyhole and turned to the right, the lever arm moves to the left. The spring 33 likewise acts on the lever arm and tends to keep the key from turning. Therefore, normally, pin 32 tends to remain in the recess by the action of spring means 33 which in turn is not acted on by the lever arm 35 because there is no force applied to turn the key. As soon as the key is turned by hand, lever arm 35 acts on the pin to withdraw it from engagement in the recess and the coin holder swings out. The coin holder can then be pushed shut without using the key since 32 has a slightly rounded end.

The particular lock used has a front circular section 38 designed to fit over an aperture in the coin holder and a cylindrical lock housing 39 which is threaded to receive

a bolt 40 which can be bolted on the inside of the coin holder against front circular section 38 which is on the outside.

In marketing the coin dispenser, there should also be included in the sales package a cloth or paper template to indicate the position of keyhole apertures 19 and 19a where the screws are to be inserted. This makes the installation of the coin dispenser much easier since the device can be properly positioned and the holes drilled under the dashboard without handling the cumbersome coin dispenser housing section. As shown in the drawing, screws with flat heads should be supplied and the housing section should be placed flush up against the dashboard. Once in place the screws cannot be removed without removing the coin holder. The keyhole openings for the screws permits the coin dispenser to be first loosely put in place then shoved into a position from which it cannot be moved. Pivot 28 will enter the side walls and cannot be readily removed.

It is to be observed therefore that the present invention provides for a coin dispenser for automobiles and includes a housing section having a rectangular flat top with apertures therein for fastening the top to the underside of a dashboard and two side walls extending from the longitudinal ends of the top at right angles thereto; a coin holder of rectangular box shape, sized to fit into said housing, the walls of the coin holder being pivotly mounted in the side walls of the housing section at the lower rear thereof so as to tend to swing outwardly including stop means to limit the outward swing; a plurality of longitudinally aligned coin holding compartments in said coin holder sized to hold different denominations of coins, each compartment including a flat disc coin rest and spring means urging said coin rest outwards with retaining means at the top of said compartments to hold the top coin in each compartment; and, locking means with a key to hold the coin holder locked in the housing section on when the device is not in use. The retaining means at the top of said compartments may be a sheet fastened to the top of said coin holder with cut sections so shaped and sized as to fit over and hold the top coin in each compartment. The stop means to limit the outward swing may be a diagonal protrusion on one of the walls of the coin holder designed to contact a corresponding protrusion on the inside of one of the walls of the housing section. The locking arrangement provided for herein includes a pin outwardly cocked by a spring in the coin holder designed to engage a recess in one of the side walls of the housing section, a lever arm designed to move the pin inwardly against the spring which is connected to the keyhole section of a lock mounted on the coin holder so that when a key is fitted into the keyhole and turned, the lever will move the pin in the proper direction.

Although the present invention has been described in conjunction with preferred embodiments, it is to be understood that modifications and variations may be resorted

to without departing from the spirit and scope of the invention as those skilled in the art will readily understand. Such modifications and variations are considered to be within the purview and scope of the invention and appended claims.

I claim:

1. A coin dispenser for automobiles, comprising in combination;

a housing section having a rectangular flat top with apertures therein for fastening the top to the underside of a dashboard and two side walls extending from the longitudinal ends of the top at right angles thereto;

a coin holder of rectangular box shape, sized to fit into said housing, with walls on the coin holder pivotly mounted in the side walls of the housing section at the lower rear thereof so as to tend to swing outwardly including stop means to limit said outward swing;

a plurality of longitudinally aligned coin holding compartments in said coin holder sized to hold different denominations of coins, each compartment including a flat disc coin rest and spring means urging said coin rest outwardly with retaining means at the top of said compartments to hold the top coin in the compartment; and,

locking means to hold the coin holder locked in the housing section when the device is not in use.

2. A coin dispenser as claimed in claim 1, said retaining means at the top of said compartments being a sheet fastened to the top of said coin holder with cut sections so shaped and sized as to fit over and hold the top coin in each compartment.

3. A coin dispenser as claimed in claim 2, said stop means to limit the outward swing of the coin holder being a protrusion on the outside of one wall of said coin holder and a corresponding protrusion on the inside of one wall of the housing section.

4. A coin dispenser as claimed in claim 3, said locking arrangement including a pin which is outwardly cocked, a spring in the coin housing for cocking said pin, a recess in one of the side walls of the housing section designed to be engaged by said pin, a lever arm designed to move the pin inwardly against said spring and, a keyhole section to which said lever arm is connected, whereby the turning in said keyhole section of a key will move the lever and pin against said spring.

5. A coin dispenser as claimed in claim 4, said locking arrangement being mounted in the coin holder alongside one of the walls thereof inside the housing section.

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