Sept. 23, 1958 E. ROEDELHEIMER ET AL 2,853,083

COIN DISPENSER

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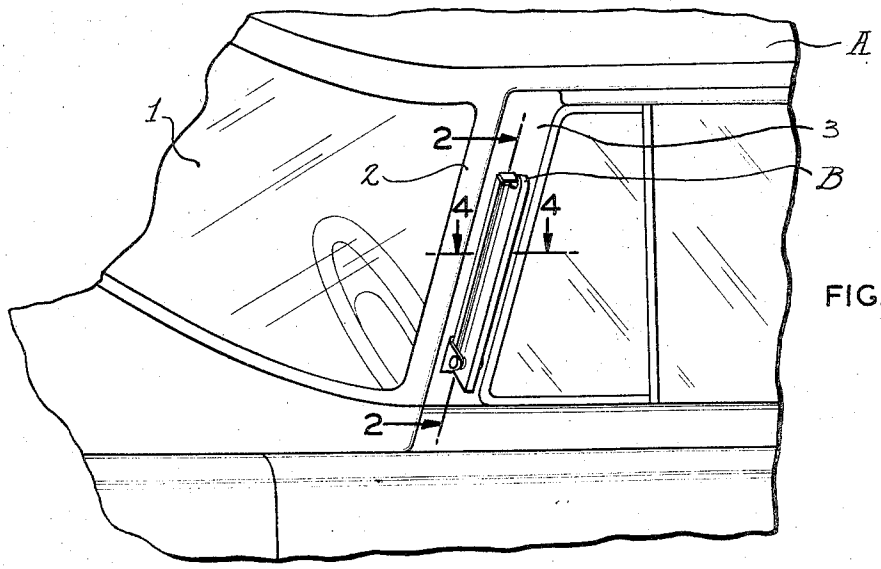


FIG. 1

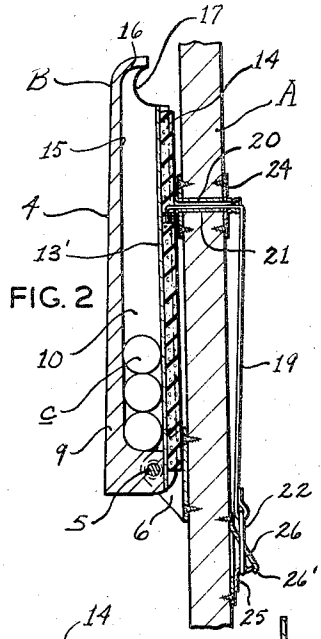


FIG. 2

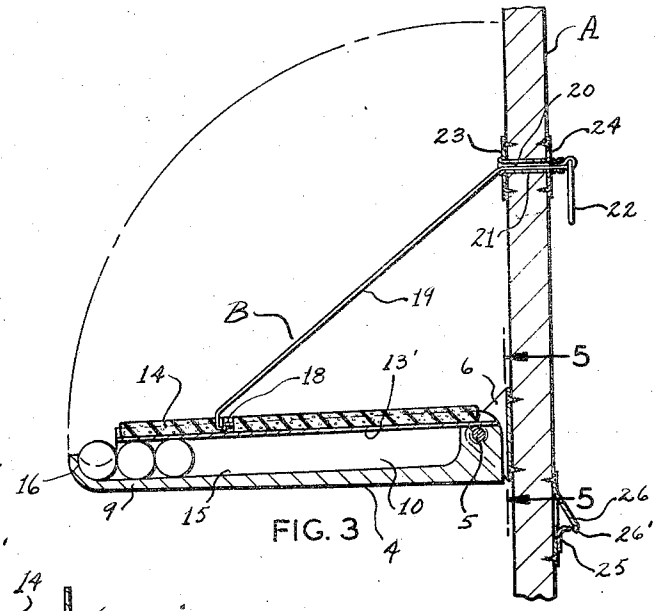


FIG. 3

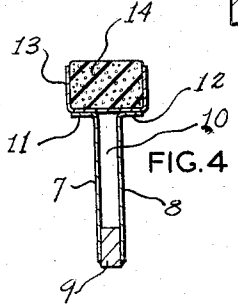


FIG. 4

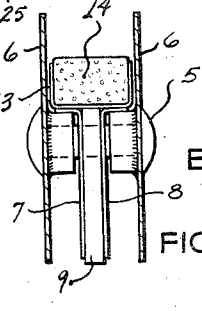


FIG. 5

EDGAR ROEDELHEIMER *INVENTOR.*
AND HARRY A. KORN
BY Ralph W. Kalish
ATTORNEY

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COIN DISPENSER

Edgar Roedelheimer, Mamaroneck, N. Y., and Harry A. Korn, Affton, Mo.; said Korn assignor to said Roedelheimer

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6 Claims. (Cl. 133—6)

This invention relates in general to coin dispensers and, more particularly, to a coin dispenser for use upon automobiles.

At the present time, there has been marked development of toll highways for the expeditious handling of heavy traffic, with the result that many motorists daily pay several tolls, including the customary bridge tolls, in traveling to and from their occupations. In order to hasten passage through a toll gate, a motorist must always have available coins of the requisite denomination and be in position for making payment upon arrival at the collector's station. Hence, to effect toll payment a window of the automobile must be lowered, or a door opened so that the fee may be delivered. During inclement weather such can either cause heat loss from the interior of the automobile or allow rain or other precipitation to enter through the opening, with resulting discomfort to the vehicle occupants.

Therefore, it is an object of the present invention to provide a coin dispenser for automobiles which is adapted to store coins of desired denomination and to present same for toll payment without the necessity of any part of the vehicle being opened.

It is another object of the present invention to provide a coin dispenser for automobiles which is easily and reliably operated, having a simplicity of parts so that the same will not be subject to breakdown.

It is a further object of the present invention to provide a coin dispenser for automobiles which may be easily mounted upon any type vehicle; which is economical in production, sturdy in construction, and durable in usage.

These and other detailed objects are obtained by the structures illustrated in the accompanying drawing, in which—

Figure 1 is a fragmentary perspective view of an automobile having mounted thereon a coin dispenser constructed in accordance with and embodying the present invention.

Figure 2 is a vertical transverse section taken on the line 2—2 of Figure 1.

Figure 3 is a vertical transverse section taken substantially on the line 2—2 of Figure 1, but showing the dispenser in operative or horizontal position.

Figure 4 is a horizontal transverse section taken on the line 4—4 of Figure 1.

Figure 5 is a horizontal transverse section taken on the line 5—5 of Figure 3.

Referring now by reference characters to the drawing, which illustrates the preferred embodiment of the present invention, A generally designates an automobile having the customary windshield 1, door post or frame member 2, side door 3; it being recognized that for purposes of illustration only one front side portion of the vehicle is shown and that being, in this case, the left front since the automobile A is depicted as having its steering wheel on that side.

Provided for disposition upon automobile A is a coin dispenser B comprising an arm 4 engaged at its normally

inner end to a horizontally presented hinge pin 5 secured to a bracket 6 fixedly mounted at a selected location upon the exterior of automobile A, such as upon door 3, or door post 2, or even, if desired, the same might be secured directly upon windshield 1 in its rearward edge portion, so as not to interfere with vision. By means of such pin 5 arm 4 is adapted for swingable movement within a vertical plane between upright or inoperative position (Figure 2) and horizontal or operative position (see Figure 3.)

Arm 4 is narrow and elongated, and of such length as to span the normal distance between the vehicle and a toll collector; said arm comprising side wall members 7, 8, preferably of thin gauge sheet metal, and a base member 9, being of relatively thicker stock, secured suitably, as by welding, to member 7, 8, so as to maintain side walls 7, 8 spacedly apart and cooperate therewith in defining a chamber 10, for storage of coins *c*; said chamber 10 extending substantially the length of arm 4. At their upper ends side walls 7, 8 may be turned outwardly to provide flanges 11, 12, respectively, for fixed securement thereon of an upwardly opening channel 13 for receiving a cushioning element 14, such as fabricated of sponge rubber or the like; the underface of the web 13' of channel 13 providing the top wall for chamber 10. Said cushioning element 14 projects outwardly of the side portions of channel 13 for shock-absorbing, damage-preventing contact with the adjacent side portion of vehicle A when arm 4 is in upright or inoperative position.

Base portion 9 is normally outwardly and downwardly inclined on its upper surface to form a ramp-like base or floor 15 to chamber 10 for gravity-impelled movement therealong of coin *c*, when arm 4 is in horizontal or operative position. At the outer end of arm 4, base member 9 is curved upwardly to form a coin stop 16; side walls 7, 8 being cut away adjacent thereto, and channel 13 terminating at such point to form a coin-withdrawal or dispensing slot 17.

Secured to arm 4, as by soldering, to a bracket member 18 fixed in channel 13, outwardly of the center point thereof, is one end of a flexible cable 19, desirably of wire stock, which is threaded through a tubular fitting 20, snugly received within an opening 21 drilled at a point in the body of vehicle A, upwardly of hinge bracket 6, so that said cable 19 is delivered into the interior of the automobile A, having affixed on its other or inner end a control element, such as a pull ring 22. Provided on the outer and inner face of the portion of vehicle A receiving tubular fitting 20 are strike plates 23, 24, respectively.

In the interior of automobile A, on the inner surface of the wall-forming portion on which arm 4 is mounted, in downwardly spaced relation to tubular fitting 20 is a spring retainer clip 25 for engaging ring 22, and a cooperating retainer 26 having an inturned tongue 26' disposed beneath clip 25 for preventing accidental or premature dislodgement of ring 22 from clip 25.

It will thus be seen that during normal driving, coin dispenser arm 4 will be maintained in vertical position of automobile A (Figure 2), with pull ring 22 being reliably engaged upon spring retainer clip 25; cushioning element 14 being presented against the adjacent exterior portion of automobile A so as to prevent any undesired marring of the finish thereof. The resiliency of cushioning element 14 will assure snug abutment of arm 4 against the side of the vehicle so that access to chamber 10 will be denied. Furthermore, should chamber 10 be completely filled with coins *c*, the one disposed in slot 17 could not be extracted due to lack of clearance.

In order to lower arm 4 into dispensing position, the user will merely release pull ring 22 from engagement with spring retainer clip 25 to allow arm 4 to descend, through gravity, into horizontal position.

Chamber **10** is dimensioned to receive coins *c* of a preselected denomination, such as dimes, which are fed into chamber **10** through dispensing slot **17** at any convenient periods, so that a quantity of same will be available for toll expenditure over numerous trips, thereby obviating the necessity of a motorist ascertaining the appropriate denomination before undertaking a toll-paying trip, or having to await change being made from currency of greater amount. Coins *c* will be in edge to edge relationship so that there is no danger of inadvertent wedging or jamming of the same, with each being thus disposed for free, gravity rolling movement along ramp **15** when arm **4** is lowered for travel toward discharge slot **17** so that a toll collector may readily extract the coin at such slot.

It will thus be seen that the use of the present invention renders unnecessary the lowering of windows or opening doors by motorists so as to make toll payments and thereby, preserves the interior of the car in a comfortable, warm state during inclement weather, or in fully air-conditioned state during hot weather. The present invention has a marked simplicity of parts so that the same will not be subject to ready breakdown, but will reliably operate for extensive periods of time and in all types of weather. Furthermore, dispenser B is of rugged construction, may be most economically manufactured, and the same can be readily installed on any type vehicle.

It should be understood that changes and modifications in the formation, construction, arrangement, and combination of the several parts of the coin dispenser may be made and substitued for these herein shown and described without departing from the nature and principle of our invention.

Having thus described our invention, what we claim and desire to secure by Letters Patent is:

1. A coin dispenser for vehicles comprising an arm pivotally mounted on the vehicle for swingable movement between vertical or inoperative and horizontal or operative positions, means for raising and lowering said arm comprising a connecting member engaged in one of its end portions to said arm, and control means located within the vehicle and engaged to the other end portion of said connecting member for effecting operation of said arm, said arm having a coin-receiving chamber, and means for effecting movement of coins within said chamber.

2. For use with a vehicle having a wall-forming portion, a coin dispenser comprising an arm pivotally mounted on the exterior of said wall-forming portion of swingable movement between vertical or inoperative and horizontal or operative position, means attached to said arm and extending through an opening in said wall-forming portion for effecting raising and lowering of said arm, there being a control element fixed on the other end of said means, said arm having a coin-receiving chamber and a coin-discharge opening in its outer portion, and means for effecting travel of said coin toward said discharge opening when the arm is in horizontal position.

3. For use with a vehicle having a wall-forming portion, a coin dispenser comprising an arm pivotally mounted on the exterior of said wall-forming portion for swingable movement between vertical or inoperativve and horizontal or operative position, a flexible cable secured at one of its ends to said arm, said wall-forming portion having an opening, said cable extending slidably through said opening, a control element fixed to the other or inner end of said cable for operation of the arm from the vehicle interior, means for engaging said control element to maintain said arm in vertical position, said arm having a coin-receiving chamber, and means for presenting coins in said chamber for discharge when said arm is in horizontal position.

4. For use with a vehicle having a wall-forming portion, a coin dispenser as described in claim 3 wherein the means for presenting said coin for discharge comprises a downwardly and outwardly inclined base portion to the coil-receiving chamber for gravity impelled movement of coins therewith.

5. For use with a vehicle having a wall-forming portion, a coin dispenser as described in claim 3 wherein the control element comprises a pull ring, and the means engaging same comprises a spring clip.

6. In combination with a vehicle having a wall-forming portion, a coin dispenser comprising an arm pivotally mounted on the exterior of said wall-forming portion of the vehicle for swingable movement between vertical or inoperative and horizontal or operative position, said wall forming portion having an opening, control means located within the vehicle for effecting raising and lowering of said arm, means extending through said opening for connecting said control means and said arm, said arm having a coin-receiving chamber and a coin-discharge opening in its outer portion.

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