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R. B. HOLLY

2,207,667

DOOR TRAY

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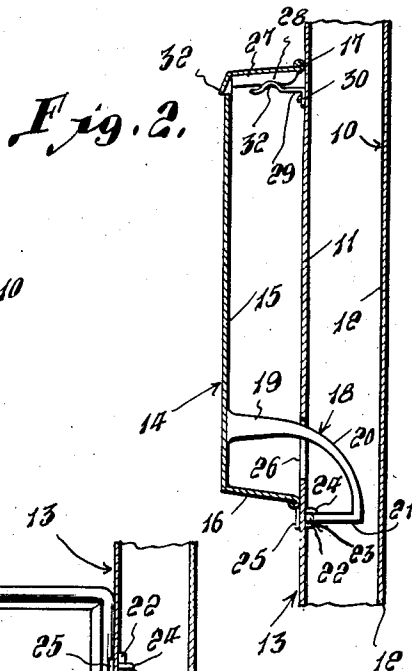
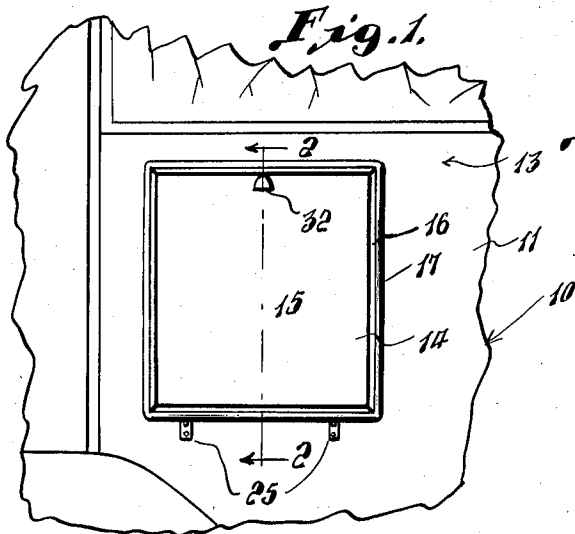


Fig. 4.

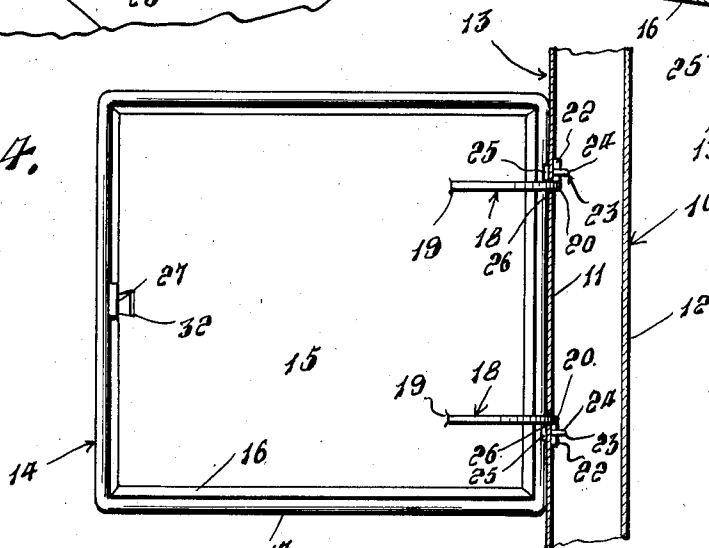
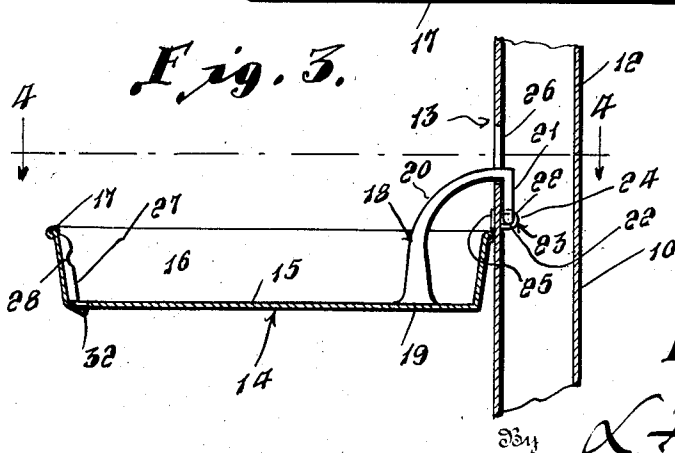


Fig. 3.



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DOOR TRAY

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2 Claims. (Cl. 311—22)

This invention relates to an improved attachment particularly adapted for use on vehicle doors to form a general utility tray capable of being moved from a closed position against the inner side of a door to an open, substantially horizontal position, within the vehicle.

More particularly, it is an aim of this invention to provide a tray of simple construction provided with improved arms or brackets projecting upwardly from the bottom thereof and pivotally mounted on a door on the inner side of the inner panel thereof for swingably supporting the tray for movement from a horizontal position to substantially a vertical position against the inner side of the door.

Other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, which illustrates a preferred embodiment thereof, and wherein:

Figure 1 is a fragmentary side elevational view showing the tray in a closed position on the inner side of a vehicle door,

Figure 2 is a vertical sectional view taken along the line 2—2 of Figure 1,

Figure 3 is a view similar to Figure 2 showing the tray in an open position, and

Figure 4 is a horizontal sectional view taken along the line 4—4 of Figure 3.

Referring more particularly to the drawing, wherein like reference characters designate like or corresponding parts throughout the different views, 10 designates generally a portion of a vehicle door which includes the inner panel 11 and the outer panel 12. The door 10 is of the conventional type used in automobiles and is shown merely to illustrate the application of the invention, designated generally 13, which will hereinafter be described.

The invention 13 constitutes a utility tray and includes a tray, designated generally 14, and formed of a bottom 15 having an upset marginal flange 16, which is preferably flared outwardly, as best seen in Figure 4, and rolled at its free edge to form the bead or rim 17.

A pair of arms or brackets, designated generally 18, have corresponding enlarged ends 19 which are secured to the upper side of the bottom 15, adjacent one of the edges, and curved intermediate portions 20 which project upwardly and outwardly from the tray 14. The free ends of the arms 18 are turned downwardly at 21 and then outwardly to form the lugs 22. Arms 18 are adapted to be

connected to the door 10 by means of the members 23 each of which includes a U-shaped element 24 disposed between the panels 11 and 12 and having its ends projecting through the inner panel 11 and connected to a base plate 25 disposed on the outer side thereof. The panel 11 is provided with the corresponding vertically disposed slots 26, arranged above the members 23, and through which project the intermediate portions 20 of the arms 18. The lugs 22 extend through portions 24 and are adapted to be rotatably mounted therein for pivotally mounting the arms 18 relatively thereto to provide for movement of the tray 14 through an arc of substantially 90°, from a closed position, against the outer side of the panel 11, as seen in Figure 2, to an open horizontal position projecting inwardly from the door 10, as seen in Figure 3.

A bar 27 is secured to the inner side of the flange 16 and to that portion thereof most remotely disposed to the arms 18. The exposed face of the bar 27 is provided with an arcuately shaped transversely disposed recess or groove 28 forming a stationary keeper which is adapted to engage the spring clip 29 when the tray 14 is in a closed position, as seen in Figure 2, for releasably maintaining it in this position. The spring clip 29 is secured to the outer side of the inner panel 11 at 30 and projects outwardly therefrom and is provided, adjacent its free end, with an arcuately shaped upwardly projecting portion 31 which is adapted to resiliently engage the groove 28 for frictionally supporting the tray 14 in substantially a vertical position. Bottom 15 is struck-out to form a finger grip 32 which projects outwardly from the underside of the tray 14 and which is disposed adjacent to the bar 27 or along the free side of the tray 14.

The utility tray 13 is so constructed that it may be readily applied to automobile doors already in use or made a part of new doors and it is designed for use by the passengers particularly as a tray for holding food and drinks when eating in an automobile and is especially designed as an accommodation to passenger customers of "curb service" restaurants. When not in use, the tray portion 14 is swung upwardly to a vertical position, as seen in Figure 2, and frictionally latched by the element 29 against the inner side of the door 10 and thus held conveniently out of the way of the passengers. To position the tray portion 14 for use, it is only necessary to grasp the struck-out portion 32 and pull outwardly thereon to release the stationary keeper 27 from the latch ele-

ment 29 to thereby allow the tray to swing downwardly to a horizontal position, as seen in Figures 3 and 4, where it will be retained by the portions 21 of arms 18 engaging the inner side of the panel 11, as best seen in Figure 3. The tray portion 14 may obviously be used as a support for other articles than food and beverages, and when in a closed position, may be used as a pocket for the storage of articles with the panel 11 forming a back wall.

While the tray attachment 13, comprising the invention has been illustrated and described as an attachment for vehicle doors, it is to be understood that the tray 13 is also intended and adapted to be attached in any other part of a vehicle where sufficient space is available; such as on the back of the front seat and on the side panels of two door sedans.

The size, shape and depth of the tray portion 14 may obviously be varied and other modifications and changes in the construction and arrangement of the parts forming the invention are contemplated and may be resorted to and the right is reserved to make such variations and changes as do not depart from the spirit and scope of the invention as hereinafter defined by the appended claims.

I claim as my invention:

1. A utility tray for vehicle doors comprising a tray having an upset marginal flange, arms secured to the bottom of the tray and projecting upwardly therefrom, said arms having curved

intermediate portions extending outwardly of said tray and terminating in end portions disposed substantially at right angles to the adjacent ends of the arcuately shaped portions, said angular ends being pivotally connected to the inner side of the inner panel of a vehicle door, the panel being provided with slots to receive said arms, and said angular ends being disposed for abutting engagement with the panel, when the tray is in an open position, to support it at substantially a right angle to the panel.

2. A utility tray for vehicle doors comprising a tray having an upset marginal flange, and a hinge bracket having an arcuately shaped end extending into the tray and secured to the bottom thereof, said hinge bracket having a substantially straight opposite end, disposed substantially at a right angle to the adjacent portion of the arcuately shaped end, the free end of said last mentioned portion being pivotally mounted on the inner side of a panel of an upright door, said panel having a slot through which the hinge bracket extends for supporting the tray on the outer side thereof, in a closed position with the rim of its flange abutting the panel, or in an open position at substantially a right angle thereto, the ends of said hinge bracket being disposed in substantially parallel planes so that the last mentioned end thereof will abut the inner side of the panel to support the tray in an open position.

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