April 15, 1952 F. F. TRACY 2,593,222

SUPPORT FOR SERVICE TRAYS

Filed April 20, 1948

Fig. 1.

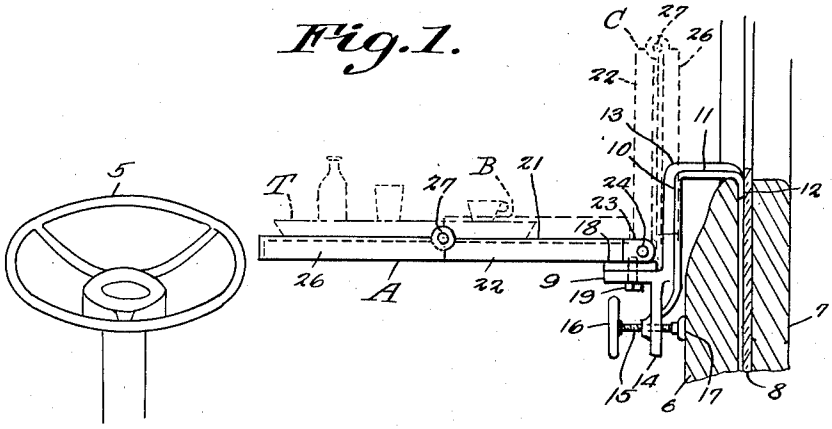


Fig. 2.

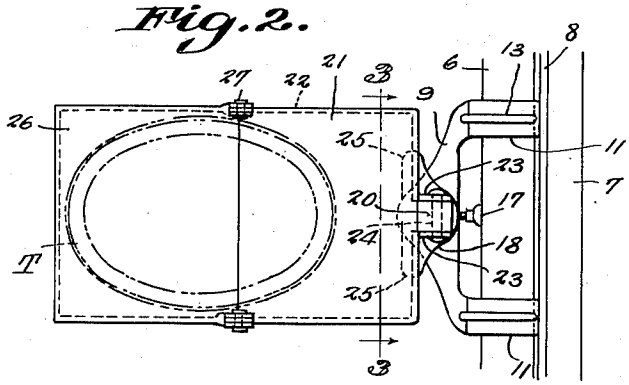
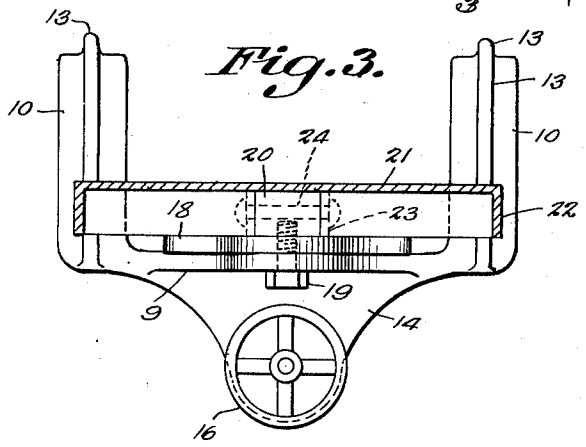


Fig. 3.



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SUPPORT FOR SERVICE TRAYS

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1 Claim. (Cl. 248—226)

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This invention relates to a support for a service tray. More particularly, the invention has reference to a device which can be used in a drive-in restaurant or the like, that is readily adapted to be hooked over the door of an automobile, so as to support a food service tray conveniently for occupants of the automobile.

Tray supports for this purpose are known. However, in most cases, in providing these supports, there has been little concern for the convenience of the customer, and additionally, many of these do not provide steady support, thereby quite often resulting in the spilling of foods, or similar accidents.

It is an important object of the present invention to provide a support for a service tray which is swingably and hingedly mounted, in a manner whereby the tray can be swung into and out of position, and can be hingedly adjusted so as to be altogether out of the way of the customer, this last feature having the additional benefit of permitting storing of the trays in a collapsed arrangement.

Another important object of the invention is to provide a device of the type stated which can be clamped to any conventional car door, and which when so clamped, cannot be dislodged or accidentally shaken from position.

Another important object is to provide a support of the character described which can be manufactured readily, at low cost, and which will be strong and long lasting.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combination of parts, hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawings

Figure 1 is a view showing the device in side elevation, a door to which the device is attached being shown fragmentarily and in section, the full line indicating the position of the support when in use, and the dotted lines respectively illustrating it partially collapsed, and entirely collapsed.

Figure 2 is a top plan view.

Figure 3 is an enlarged section taken substantially on line 3—3 of Figure 2.

Referring to the drawings in detail, at 5 I have designated the steering wheel of an automobile. The reference character 6 designates the inner

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wall of the car door, 7 the outer wall, and 8 the window carried in the channel between the walls. These are all of conventional construction, and are illustrated to show the arrangement of the support with regard to an automobile in which it is placed.

The invention includes a base 9, which can be a casting, this comprising a horizontal tray supporting portion, having at its ends upstanding arms 10. The arms 10 have laterally extended end portions 11, downturned at their free ends to provide hooks 12 that are received in the channel of the car door as best shown in Fig. 1. A reinforcing rib 13 can be provided on each arm, for strengthening purposes.

Extended downwardly from the base 9 is a depending flange 14, through which is threaded a screw 15 having at one end the hand wheel 16, and having at the other end the swivel foot 17.

By reason of the construction so far described, it may be readily observed that the device can be hooked over a car door, whereupon the screw 15 is adjusted toward the inner wall 6, and this clamps the entire support tightly to the door. It will be noted in this connection that the use of the two wide spaced hooks 11 at opposite ends of the base, and rigid with the base, will level the base longitudinally of the vehicle when the hooks are seated against the top edge of the inner wall 6 in the manner shown in Figs. 1 and 2. Subsequently, when the screw 16 is shifted against the inner wall 6, not only is the entire support clamped tightly to the door, but additionally, the screw acts to level the base transversely of the vehicle. A tray support carried by the base, accordingly, is leveled both transversely and longitudinally.

A turntable or bearing plate 18 is supported by the base 9, and is connected thereto by means of a pivot bolt 19, whereupon the turntable is permitted to swing in a horizontal plane relative to the base.

Integrally formed with the turntable 18 is an upstanding lug 20.

Hinged to the turntable, for swinging in a vertical plane, is a tray supporting member 21 and this is flat, and is formed with a peripheral depending flange 22. At one end of the member 21, flange 22 is out turned to provide spaced ears 23, positioned on either side of lug 20. Registering openings are provided in the ears 23 and lug 20, receiving a pivot bolt 24 to provide the hinged arrangement described.

At this point, it may be noticed that the turntable 18 has its ends 25 underlying flange 22.

Thus, when the inner tray supporting member 22 is brought to its full line position illustrated in Fig. 1, it is supported horizontally, and is held against further downward swinging movement by the ends 25 of the turntable.

An outer tray supporting member 26 preferably is also perpherally and dependingly flanged, and it is hingedly connected to the member 22, as shown at 27.

When the members 22 and 26 are in the full line position of Fig. 1, they are adapted to support a service tray T for food.

In use, the device is hooked over a car door and clamped thereto, as hereinbefore described. Then, the parts are brought to the full line position of Fig. 1, and thus the support will extend across the seat of the vehicle, so that the occupants can partake of the food with ease. As desired, the support can be adjusted toward or away from the occupants, by swinging it in a horizontal plane, the turntable 18 pivoting on the bolt 19 during this adjustment. As may be noted from Figs. 2 and 3, the upwardly extending portions of the hooks are positioned equidistant from the pivot 19, and constitute stops limiting said swinging movement of the service tray in a horizontal plane in opposite directions. This insures against the possibility of the service tray being swung against the surface of the car door in a manner to mar said door. This arrangement is convenient when the occupants of the vehicle have completed the meal, and desire to swing the tray away.

When the tray T has been removed, the member 26 can be hingedly swung on the connection 27, to a position shown in dotted lines in Fig. 1 and designated B. Then, members 26 and 22 folded against each other are swingable to a position C, in which position the support is entirely clear of the vehicle occupants.

The construction is one which permits efficiency in service, and a high degree of customer convenience. When a vehicle pulls into a parking area in a drive-in restaurant, an attendant can approach the vehicle, carrying the support. The attendant immediately hooks the support into position, leaving the members 22 and 26 in the position C of Fig. 1. The order for food can now be taken, and it may be noted that while the occupants are awaiting the arrival of the food, the support will be out of the way entirely. This arrangement is far more efficient and convenient than one in which, for instance, the attendant must place the support in a position extending

across the front seat, in which position it interferes with the comfort of the vehicle occupants before arrival of the food order. The arrangement also has advantages over one in which the attendant must bring the tray support and the tray all at the same time, in which event the tray T must be placed elsewhere while its support is being hooked into the car door.

What is claimed is:

In a clamp for service trays a cast base formed with a plane portion adapted for supporting one end of a service tray, said base being cast at opposite ends with a pair of hooks extending upwardly from opposite ends of the base, said hooks having upper ends disposed in a common plane above the plane portion of the base and spaced widely apart, a pivot extending upwardly through said plane portion and centered between said hooks, a flange cast upon and disposed under the plane portion of the base, and a clamping screw threaded in the flange and adapted to be shifted against a vehicle door on which the hooks are hung, said clamping screw adapted for adjusting of the base to level position and clamping the base to said door, the upwardly extended portions of the hooks being positioned to constitute stops limiting swinging movement in opposite directions of a service tray mounted on said pivot.

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