

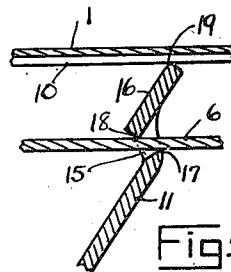
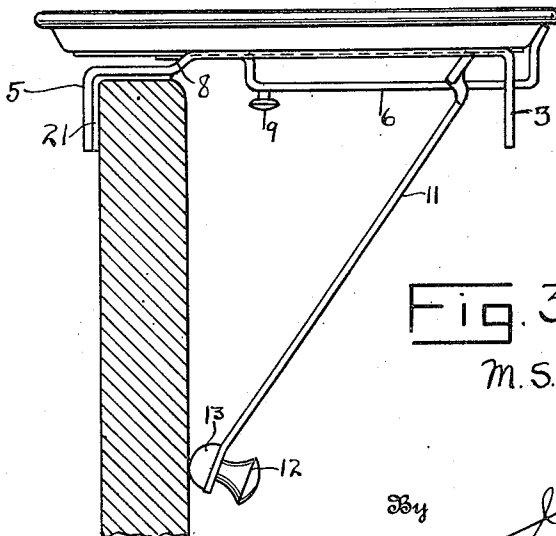
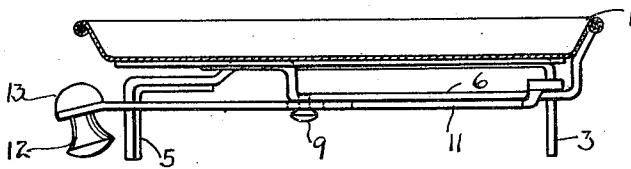
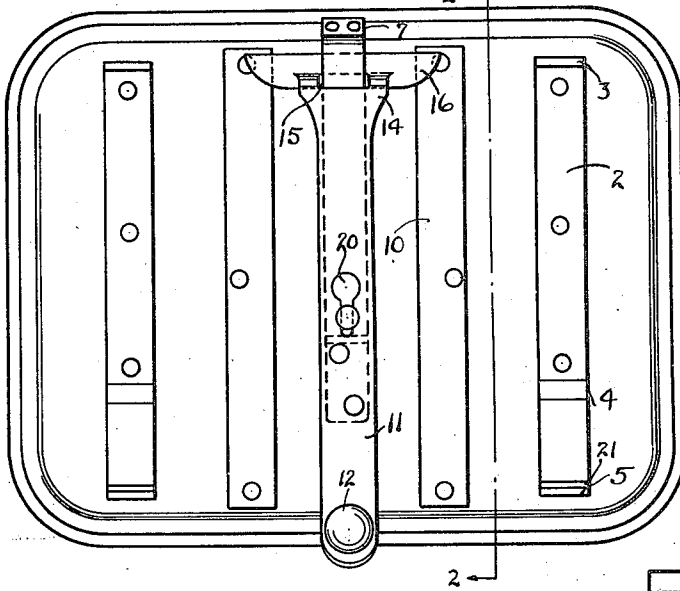
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ADJUSTABLE TRAY SUPPORT

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ADJUSTABLE TRAY SUPPORT.

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My invention relates to supporting means for service trays adapted to be attached and again detached from a supporting member, such as an automobile door. The device is adapted to be used upon trays upon which foods and drinks are served to patrons, the tray being adapted to be supported upon the door or side of the vehicle while passengers in the vehicle are being served.

It is an object of the invention to provide a support for a tray which may be secured to the door of an automobile, or similar vehicle, said tray support being adjustable for attachment to doors of different sizes and formed so as to be quickly adjustable in such manner as to firmly support the tray.

It is desired that the tray support be strong in construction and easily collapsed out of the way and that when in operative position, it may support the tray steadily in an upright level position. The invention consists in the particular construction and arrangement of the parts by which the objects are accomplished.

Referring to the drawings, Fig. 1 is a bottom plan view of a tray equipped with my invention. Fig. 2 is a transverse section on the plane 2—2 of Fig. 1. Fig. 3 is a side elevation of the invention showing the same in operative position upon vehicle door, said door being in section. Fig. 4 is a broken detail illustrating the manner in which the supporting leg is adapted to firmly grip the tray. Like numerals of reference are employed to designate like parts in all the views.

The tray may be of any desired construction, and I have shown a tray 1 of general rectangular shape, the corners thereof being rounded. This tray may be of any desired sheet metal, such as aluminum, or any equivalent material. Upon the bottom of the tray, transversely thereof, I place two opposite supporting brackets 2, one at each end of the tray. These brackets are made of strips of metal which lie flat upon the bottom of the tray, the forward end of each strip being bent downwardly at 3 to form a rigid leg. At the opposite end of the bracket, the strip is bent away from the tray slightly, as shown at 4, to space the strip away from the tray so as to accommodate a sleeve of rubber or other material which may be used to cushion the device at that end. The end of the strip is bent down-

wardly at 5 to form a leg, the end being spaced from the tray the same distance as that of the leg 3.

Centrally of the tray and parallel with the two brackets 2, I place an attaching bracket 6. This bracket is composed of a strip of metal, the forward end 7 of which is secured to the body of the tray, the central portion of the strip being bent downwardly and extended along parallel with the bottom of the tray in a predetermined spaced relation relative to the tray. At a point somewhat beyond the central line of the tray the bracket is recurved toward the tray and attached thereto at 8. At the inner end of the spaced portion of this bracket a button or pin 9 is placed for a purpose which will later be described.

On each side of the central bracket and spaced a slight distance therefrom, I have shown two supporting strips 10 intended to reinforce the bottom of the tray. These strips may be omitted if desired and particularly where the tray is made of heavy material. The brackets and the strips may be secured to the tray by riveting or any other preferred means and I have shown the use of rivets for this purpose.

The central supporting bracket 6 forces an attachment for an adjustable leg 11. This leg comprises a rod or strip of rigid material, the lower end of which has formed on one side thereof a handle 12, by means of which the said rod may be adjusted. On the side opposite the handle 12 and presented toward the support upon which the tray is secured, is a knob 13 of rubber or other similar compressible material, adapted to bear against the door of the car upon which the tray is to be supported. The opposite end of the rod 11 which in use is the upper end thereof, is made somewhat wider at 14, and a slot 15 is cut centrally thereof and transversely of the bracket 6, which is adapted to pass loosely through said slot, as shown best in Fig. 1. The end of the rod between the supporting bracket 6 and the base of the tray is extended laterally to form arms 16 bearing upon the reinforcing strips 10 of the tray. These arms are rigid with the rod and tend, when in contact with the bottom of the tray, to hold the said tray against tipping in a lateral direction.

The rod or strip 11 is adapted to grip the supporting bracket 6 when it is extended in

operative position, as shown in Fig. 3. The manner in which the said leg 11 grips the strip 6 is best shown in Fig. 4. It will be noted that the leg 11 has the slot 15 cut therein at a slight angle so that a sharp edge is formed at 17. Beyond the slot from the point 17 the end having the arms 16 thereon is also formed with a sharp point 18 which engages the strip 6 on the opposite side. The arms 16 are of sufficient width so that when the leg 11 sets at a proper angle to hold the tray in horizontal position, as shown in Fig. 3, the upper end of the leg indicated at the point 19 will engage with the strips 10 on each side thereof. It will, therefore, be noted that the upper end of the adjustable leg 11 grips the tray firmly and this is accomplished at three separate points. The bracket 6 is engaged by the points 17 and 18 and the lower portion of the tray is engaged by the point 19. This is a valuable feature of the invention in that the tray is held absolutely rigid in adjusted position when the leg 11 is extended downwardly into contact with the door of the car.

The leg 11 may be extended parallel with the bottom of the tray when it is not in use upon a supporting structure, as shown in Fig. 2, and when thus collapsed it may be held in that position by means of a key hole slot 20 formed in the said leg at a point adapted to engage with the pin 9 upon the bracket 6. The head of the said pin 9 may pass through the enlarged end of the key hole slot and the leg may then be moved longitudinally so as to bring the button into position shown in Fig. 1, thus holding the leg in collapsed position as is shown in Fig. 2. The tray may then be supported upon the legs 3 and 5 upon a table or any similar support.

The advantages of this construction lie in its strength and simplicity and in the firmness of the support provided by the particular type of leg 11 shown and described. A cushion 21 of rubber or felt or similar material may be placed upon the legs 5 and when the tray is supported in the position shown in Fig. 3, there will be produced a support which is practically rigid and firm. It will not give or bend under heavy loads placed upon the tray but will in fact grip the support more firmly. There will be no danger of the upper end of the leg 11 sliding relative to the tray and yet the leg is adjustable for engaging upon supports of varying thickness in a manner which will be obvious. The further advantages of this construction will be obvious to those skilled in the art.

What I claim as new and desire to protect by Letters Patent is:

1. In a device of the character described a tray, stationary legs on the bottom thereof adjacent one side, a central bracket between

said legs, the central portion of said bracket being spaced from said tray to form a track, an adjustable leg comprising a strip of rigid metal having a foot at one end and having a slot adjacent the other end to receive said bracket and slide on said track, lateral arms on the end of said leg adjacent said slot, said slot being formed at a predetermined distance from the upper end, whereby both sides of said slot will engage said track and said arms will engage said tray when said adjustable leg is swung on said track as a pivot into supporting position.

2. In a device of the character described, a tray, stationary legs adjacent one side of the bottom thereof, a central bracket midway between said legs having a central track spaced from the tray bottom a predetermined distance, an adjustable leg slidable on said track, arms on said adjustable leg adapted to engage said tray bottom, a foot on said leg co-operating with said stationary legs to engage a support, means on said adjustable leg to engage said track on its upper and lower sides coincident with the engagement of said leg with said tray bottom.

3. In a device of the character described, a tray, a central transverse bracket thereon forming a track thereon spaced from said tray a predetermined distance, a leg having a slot adjustable along said track, the opposite sides of said slot being edged to engage said track, arms on said leg adapted to engage said tray when said leg is adjusted in position to engage said track, and means on said tray co-operating with said leg to fix said tray upon a support.

4. In a device of the character described, a tray, stationary legs, and an adjustable leg on said tray, a bracket on said tray along which said adjustable leg is slidable, an offset bracket engaging means on said adjustable leg to clamp said bracket when set at a certain angle relative to said tray, and arms on said leg formed to engage said tray when said leg clamps said bracket, for the purpose described.

5. In a device of the character described, a tray, stationary legs and an adjustable leg on said tray, a central bracket on said tray, said bracket having a central track spaced from the tray and along which said adjustable leg is slidable, means on said adjustable leg to clamp the same to said track, and means on said leg projecting upwardly beyond said bracket and adapted to engage said tray when said leg is in clamping position to prevent lateral tipping of said tray.

6. In a device of the character described, a tray, stationary legs projecting from the lower side thereof, a central bracket formed of a strip of metal secured at its ends to said tray and having its intermediate portion spaced from said tray, an adjustable leg having a slot therein to fit slidably on

said bracket, said slot being formed in said leg at an acute angle relative to the longitudinal axis of said leg, whereby it will clumpingly engage said bracket when said
5 leg is swung into the proper position to engage a support, and arms on said leg projecting above said bracket and formed to

engage said tray when said leg is in clamping position on said bracket.

In testimony whereof I hereunto affix my
signature this 12th day of December, A. D. 1925. 10

MAURICE S. BRIGHT.