Dec. 8, 1942. T. G. PATE 2,304,705

PORTABLE TRAY OR TABLE

Filed Nov. 6, 1940

Fig. 1.

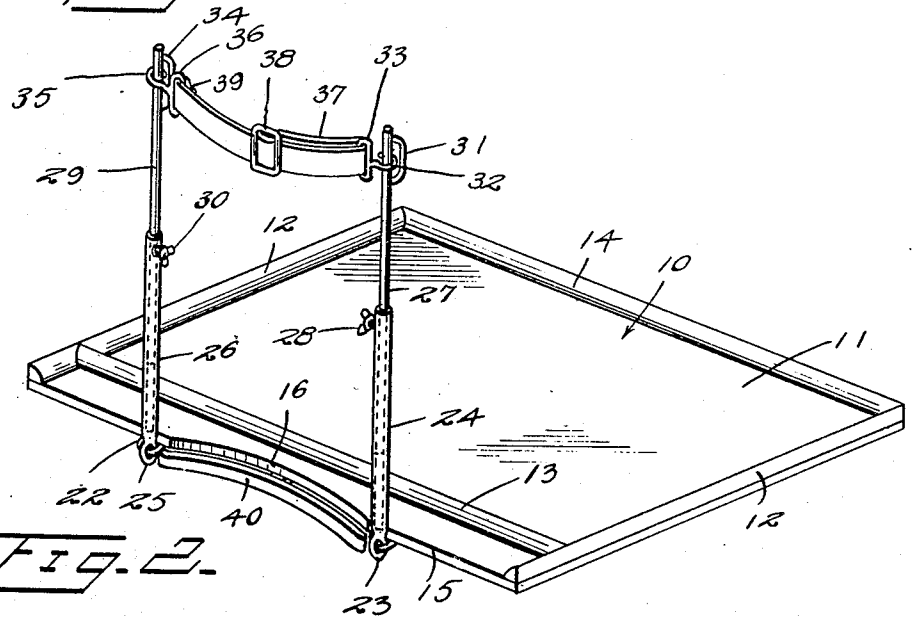


Fig. 2.

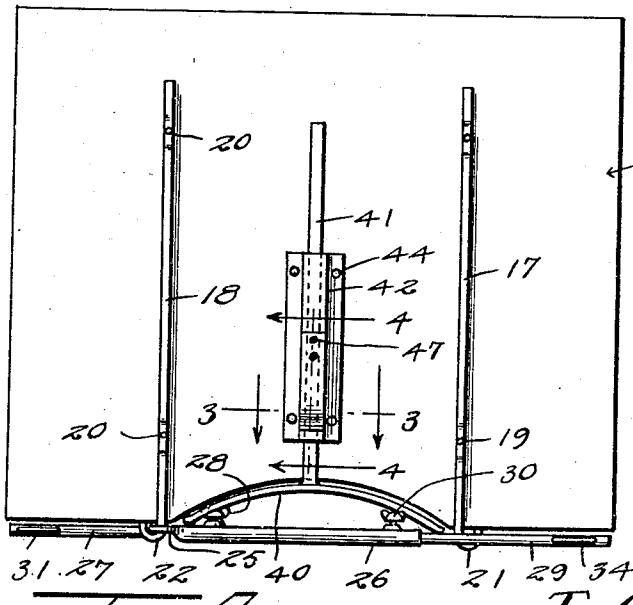


Fig. 3.

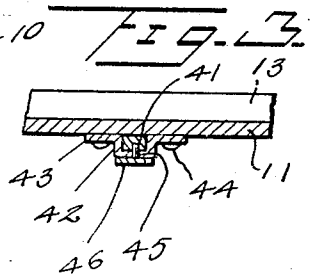
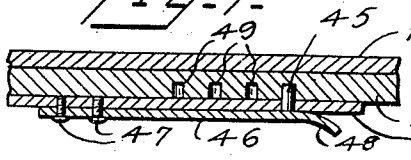


Fig. 4.



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Patented Dec. 8, 1942 2,304,705

UNITED STATES PATENT OFFICE

2,304,705

PORTABLE TRAY OR TABLE

Thomas G. Pate, Liberal, Kans.

Application November 6, 1940, Serial No. 364,578

1 Claim. (Cl. 224—25)

This invention relates to portable trays.

An object of this invention is to provide a tray structure which is so constructed that it will readily be supported in a horizontal position, the tray being suspended from the neck of a person and disposed in front of the user.

Another object of this invention is to provide in a tray structure of this kind, an improved collapsible suspending means whereby the position of the tray may be adjusted as desired.

A further object of this invention is to provide in a tray structure of this kind, means whereby the tray may be supported at the desired horizontal position in front of the user and may also be disposed in the desired adjusted position relative to the body of the user.

A still further object of this invention is to provide a tray structure of this kind which has a collapsible suspending means so that when the tray is not in use, the tray may be stacked or nested, the suspending means being collapsible adjacent the inner edge of the tray.

To the foregoing objects and to others which may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts as will be more specifically referred to and illustrated in the accompanying drawing wherein are shown embodiments of the invention, but it is to be understood that changes, variations and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawing:

Figure 1 is a perspective view of a tray constructed according to an embodiment of this invention.

Figure 2 is a bottom plan of the tray structure.

Figure 3 is a fragmentary sectional view taken on the line 3—3 of Figure 2.

Fig. 4 is a fragmentary longitudinal sectional view taken on line 4—4 of Fig. 2.

Referring to the drawing, the numeral 10 designates generally a tray structure including a bottom wall 11, upstanding side flanges or beads 12, an upstanding rear bead or flange 13, and an upstanding front bead or flange 14. In the present instance, the flanges 12, 13 and 14 are formed of quarter-round material which may be secured to the upper face of the bottom member 11 in any suitable manner. It is to be understood, however, that the bottom member 11 and the flanges 13, 13 and 14 may be formed out of metal wherein the flanges may be pressed out of the bottom wall.

The rear flange or bead 13 is positioned forwardly from the rear edge 15 of the bottom wall 11 and the bottom wall 11 at a point centrally of the rear edge 15 thereof is provided with an arcuate cutout 16.

A pair of elongated reinforcing bars 17 and 18, for the wall 11 are secured as by fastening devices 19 and 20, respectively, to the underside of the bottom wall 11 and are disposed in parallel spaced relation, extending from the ends of the arcuate cutout 16. The bar 17 at its rear end is provided with an eye or hook 21 and the bar 18 at its rear end is also provided with an eye or hook 22. The eyes or hooks 21 and 22 are disposed in rearwardly extending relation with respect to the rear edge 15 and the eye or hook 21 has engaged therewith an eye 23 which is carried by a tubular suspending member 24. The eye or hook 22 has engaged therewith an eye 25 which is carried by the lower end of a tubular suspending member 26. The members 24, 26 are for disposing upwardly with respect to the rear edge 15 of wall 11 when the tray is used.

An elongated rod 27 is adapted to telescope into the tubular suspending member 24 and is held in adjusted position relative to the member 24 by means of a thumb screw 28 which is threaded through the tubular member 24. A second elongated rod 29 is adapted to telescope into the tubular member 26 and is secured in adjusted position relative to the member 26 by means of a thumb screw 30 which is threaded through the tubular member 26. The rods 27, 29 correlate with the members 24 and 26 respectively to form a pair of lengthwise adjustable suspension elements for the bottom wall 11.

The upper end of the rod or telescope member 27 has secured thereto an elongated loop or eye member 31, which extends laterally from a side of the rod 27, and a hook 32 carried by a loop 33 is adapted to engage about the upper portion of the rod 27 between the ends of the loop or guide member 31.

The guide member 31 limits the movement of the hook 32 lengthwise of the rod 27. The rod 29 adjacent the upper end thereof is also provided with a second loop or eye member 34 which extends laterally from a side of the rod 29 and constitutes a guide and stop means for a hook 35 which is carried by a loop 36. The loop 33 engages about a flexible combined coupling and hanger strap or member 37 for the suspension elements. The strap or member 37 has secured thereto a buckle 38. The loop 34 is secured in a reverted end portion 39 of strap or member 37.

While I have shown the strap 37 with the hooks

32 and 36 engaged directly with the upper ends of the rods 27 and 29, respectively, it will be understood that if desired a spring or other yieldable means may be secured to the upper ends of the rods 27 and 29 and engaged at the opposite ends thereof with the eyes 31 and 34 in order that the suspension means when in applied position may readily conform itself to the configuration of the user.

In order to provide a means whereby the rear edge of the tray 10 may be extended forwardly from the body of the user, I have provided an arcuate bar 40 which is secured at its central portion to an elongated adjustable supporting bar 41. The supporting bar 41 is slidable in a U-shaped guide channel member 42 which is formed at the opposite longitudinal edges thereof with base flanges 43.

The base flanges 43 are secured to the underside of the bottom wall 11 by means of fastening devices 44. It will be understood that where the tray 10 is made of metal, the guide member 42 may be formed integrally with the bottom wall 11 by striking out the channel 42 therefrom. The supporting bar 41 is held in longitudinal adjusted position relative to the channel member 42 by means of a locking pin 45 carried by a flat spring 46 which is fixed at one end to the channel member 42 by fastening devices 47. The spring 46 is outwardly bent as at 48 to form a finger piece and the slide bar 41 is formed with a plurality of sockets 49 in a selected one of which the locking pin 45 is adapted to engage. When the arcuate bar 40 is in inoperative position, it is positioned in the area below the arcuate cutout 16.

In the use and operation of this tray, the strap 37 is engaged about the neck of the user extending about the rear portion thereof with the hooks 32 and 35 positioned in front of the user. The rods 27 and 29 may be adjusted relative to the tubular members 24 and 26 and secured in their adjusted position by means of the set screws or thumb bolts 28 and 30, respectively. The desired articles may then be placed on the tray 10 within the area defined by the flanges 12, 13 and 14. In its operative position, the cutout 16 will engage the user at a point adjacent the waistline or any other suitable position and the weight of the tray will press the tray inwardly so that articles may be placed on the outer portion of the tray without the tray tilting downwardly at its outer portion. This tray will stay in the desired horizontal position but disposed with cutout 16 against the body so that the user may use both hands in removing the articles from the tray.

The loop members 21 and 22 and the eye members 23 and 25 are so arranged that the rods attached thereto may be pivoted in a single plane to allow them to fold along the rear edge of the tray. When the rods 24 and 26 are in upstanding position, the eyes 23 and 25 so engage the loop members 21 and 22 that it is impossible to pivot the rods 24 and 26 in any other plane except that mentioned. In operative position, the axis of the eyes 23 and 25 is substantially axially arranged with respect to the bar 17.

This tray may be used in restaurants, cafeterias, warehouses or other places where it may be found desirable. The suspending members comprising the telescoping members 24 and 27 and the members 26 and 29 may be disposed in an inoperative position by releasing one of the attaching hooks carried by the strap 37 and then swinging the suspending members downwardly toward the tray 10. These suspending members may then be disposed in crossed relation at the rear of the tray 10. In this manner, the tray structure when in collapsed position will occupy only a very small amount of space so that a number of trays may be stacked one upon another.

What I claim is:

A portable tray comprising a tray member, a pair of spaced apart reinforcing bars secured to the bottom of said tray, a pair of loops fixed at the inner end of said reinforcing bars parallel to the plane of the tray and extending past the rear edge of said tray member, said tray member having an arcuate cutout in its rear edge between said reinforcing bars, a pair of slidably telescoping upstanding supporting rods having eyes pivoted at their lower ends to said loops, the axis of said eyes being in substantial axial alignment with said bars, and an adjustable neck engaging means secured to the upper ends of said rods, said supporting rods comprising the sole support of said tray when the latter is in horizontal operative position, said rods being foldable into inoperative position along the rear edge of said tray.

THOMAS G. PATE.