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FOLDABLE TRAY-TABLE UNIT
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Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

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FOLDABLE TRAY-TABLE UNIT

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1 Claim. (Cl. 311—83)

In accordance with this invention in its present embodiment, a light and preferably rectangular metal tray 6 of standard size is hingedly connected along one longitudinal marginal portion of its depressed bottom 6' by simple strap metal hinges 7 to one of a pair of U-shaped metal leg members generally designated 8 and 9 as particularly shown in Figs. 2, 3 and 5. In this instance the hinges 7 are fastened with rivets 10 to the under side of the depressed bottom 6' of the tray and rolled around the horizontal cross piece 8' of the U-shaped leg member 8 so that one of the elevated rolled-edge flanges 6'' of the tray will overlie and extend outwardly over and conceal the cross piece 8' when the unit is set up as a tray-table as best shown in Fig. 6.

The free side pieces or legs of the U-shaped leg members 8 and 9 are crossed and pivoted as at 11 intermediate their ends (see Fig. 6), with intervening washers 12 to provide smooth acting and wear-resisting pivotal connections between said members, thus providing four legs for the unit, there being non-slipper rubber tips 13 on the free ends of the leg members which also prevent scratching of floor surfaces.

As a means for releasably connecting the tray to the other leg member 9, two spring catch members 14 are mounted on the underside of the bottom 6' of the tray 6 opposite the hinges 7 by means of rivets 15 and are arranged to snap over and around the cross piece 9' of leg member 9 as best shown in Fig. 8. It should be noted that in having the catch members 14 in line with the hinges 7 and adjacent the ends of the tray as are the hinges, the tray is held with considerable stability on the leg members 8 and 9 and the latter are likewise maintained as a rigid and stable support for the tray. The catch members 14 are hook-like with downwardly facing claws so that in encompassing and having their free ends extending below the cross piece 9' and back thereunder as shown in Fig. 6, the tray and leg members are effectively held in secure assembled relation and can be moved about while lifting the unit by holding tray, without disengaging the catches. The other longitudinal and rolled edge flange 6'' of the tray will overlie and conceal the cross piece 9' of the leg member 9 as well as the catch members 14. In this connection it should be noted that the elevated and flanges 6'' of the tray are extended beyond the vertical plane of the leg portions of the leg members 8 and 9 so that the tray is symmetrically positioned and balanced on the leg members with its bottom 6' positioned below the plane of the cross pieces 8' and 9' but-

1. Claim. (C. 311—83)
ter to lend stability to the unit as will be apparent with reference to Fig. 6.

With reference to Fig. 3 it will be apparent that if the hinged side of the unit is held with one hand and tilted but slightly toward the operator while releasing the catch members 14, the cross piece 9' and the leg member 9 being then released, will gravitate in the direction of the arrows, while at the same time the tray 6 tends to likewise gravitate and under control of the operator may be readily restrained to follow the leg unit 9 and eventually take the collapsed position shown in Fig. 4. In this position the unit as here shown will take up but approximately 2/3 inches as to thickness and may therefore be conveniently packaged for shipment or stored in very small compass.

It should be noted that when the table is collapsed, the tray remains suspended from the cross piece 9' of the leg member 8 and lies in vertical position against the upright leg portions of member 8 while the other leg member 9 is inverted compared to leg member 8 and has its cross piece disposed adjacent the free ends of the legs of member 8, all to the end that a most convenient folding is provided for with the parts subject to a ready extension into "table" position.

With reference to Fig. 4 it will be apparent that upon lifting the lower longitudinal marginal portion of the tray while swinging the free ends of the leg member 8 outwardly away from the operator and downwardly to dispose the cross piece 9' beneath the tray 6, (see Fig. 3) the catch members 14 may readily be engaged with the cross piece 9' to set up the unit as a tray-table in accordance with this invention.

It should be noted that the tray 6 and cross pieces 6' and 9' at the upper ends of the leg units 3 and 8 are of such length that they will span the lap of a person seated in a normal fashion on a chair or the like and as these cross pieces extend lengthwise of the tray, it follows that the legs proper of the tray table provide therebetwixt from the floor level to the tray an unobstructed space which will accommodate the legs and knees of the seated person. Thus the tray may readily be drawn into and out of a position overlying the lap of the seated person without being obstructed and without requiring that such person move the feet or lower limbs or in any way crowding the legs.

While we have shown and described a specific embodiment of our invention we do not limit ourselves to the exact details of construction set forth, and the invention embraces such changes, modifications and equivalents of the parts and their formation and arrangement as come within the purview of the appended claim.

We claim:

In a tray-table unit, a pair of U-shaped leg members the leg portions of which are longer than the cross pieces thereof, means pivotally connecting the side portions of said U-shaped members in crossed relation to one another, a rectangular tray having a depressed bottom wall and marginal flanges which latter extend above the plane of the bottom and laterally outward, means hingedly connecting the bottom of the tray along one longitudinal margin thereof to the cross piece of one of said U-shaped leg members so that the flange adjacent said margin lies over and extends outwardly beyond said cross piece, catch members on the bottom of said tray adjacent the other longitudinal margin of said bottom arranged to releasably engage the cross piece of the other U-shaped leg member to hold said leg members assembled as a support for the tray, said catch members lying beneath one of said flanges and in inwardly spaced relation to the outer edge thereof, the legs of each U-shaped leg member being spaced apart a distance substantially equal to the length of the tray and sufficient to receive therebetwixt the feet and legs of a seated person with the tray overlying the lap of such a person.

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