Oct. 18, 1927. 1,646,333

G. E. WHITNEY

SERVICE TRAY

Filed Nov. 12, 1926

Fig. 1.

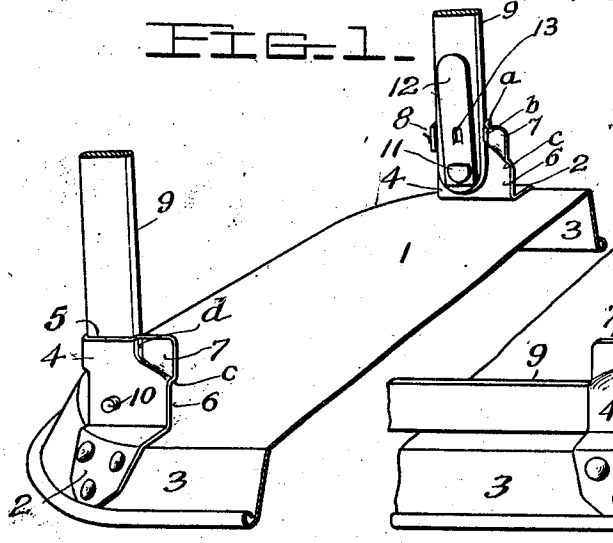


Fig. 2.

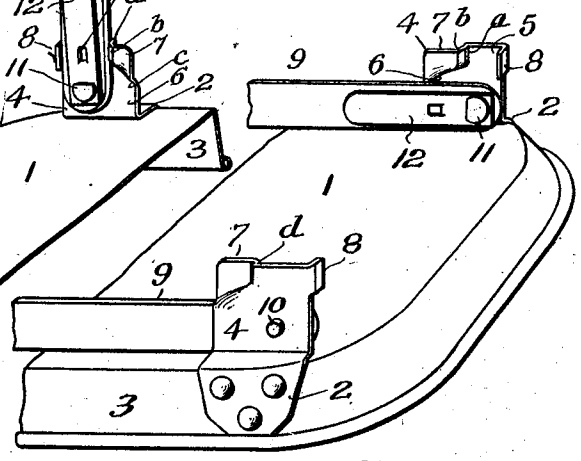


Fig. 3.

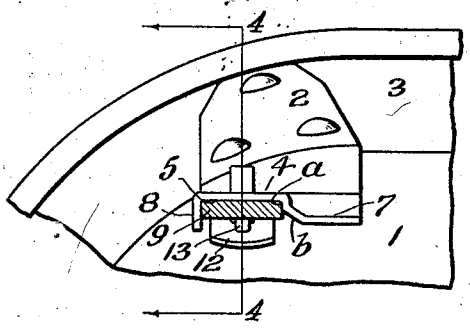


Fig. 4.

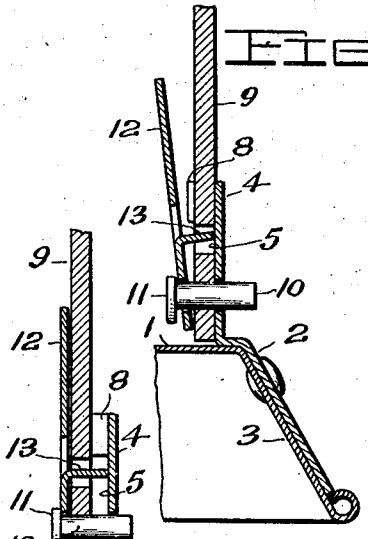


Fig. 5.

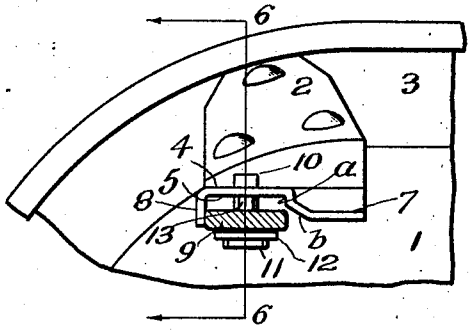
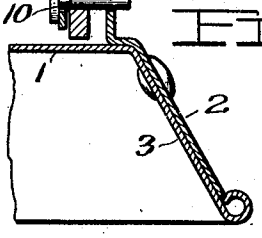


Fig. 6.



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UNITED STATES PATENT OFFICE.

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SERVICE TRAY.

Application filed November 12, 1926. Serial No. 148,017.

This invention relates to service trays, and has particular reference to such devices in which legs are provided that are capable of being extended outwardly and folded against the bottom of the tray proper.

One of the objects of the invention is to hold the legs in their opened or folded positions without the aid of any spring bar or other similar device that is fixed to the central portion of the tray.

The provision of any such fastening device mars the central portion of the tray and is quite objectionable and in the present invention the securing devices are fixed to the extreme ends of the tray corners.

A further object is to provide resilient means that will automatically operate for preserving the positions of the legs when either opened or closed.

A still further object is to provide auxiliary means for positively locking the legs in their opened condition so that they cannot accidentally collapse.

In the accompanying drawing which forms a part of this application

Figure 1 is a bottom perspective view of one end of the tray with the legs broken away and in opened position—

Figure 2 is a similar view with the legs in closed position—

Figure 3 is a fragmentary view of one corner of the tray with the leg element sectioned and in the position which it occupies when opened and with the manually operable lever as it appears prior to depression—

Figure 4 is a section at the line 4—4 of Figure 3—

Figure 5 is a view similar to Figure 3 but showing the position of parts when the manually operable lever has been depressed to force the leg clear of the rectangular portion of the vertical recess, and

Figure 6 is a section at the line 6—6 of Figure 5.

Similar numerals of reference denote like parts in the several figures of the drawing.

The legs are made from flat sheet metal stock and their side portions are resilient.

1 is the tray proper, 2 are fixtures secured in pairs to the bottom portions of the sides 3 of the tray, these fixtures having depending therefrom immovable brackets that are generally denoted by the numeral 4, said brackets having within their lower outer portions vertically disposed recesses or pockets 5, and within their upper inner portions horizontally disposed recesses or pockets 6, and intermediate these recesses the stock of the brackets is forced inwardly at the point denoted by the numeral 7. In all instances, the outer end walls 8 of the recesses 5 are at right angles to the inner walls of these recesses so as to afford rigid stops to prevent the overthrow of the legs.

The inner walls of one recessed portion 5 at each end of the tray are at right angles to the back wall of said portion, as shown at *a* and terminate in inclines *b* that lead to the inwardly bent or forced portion 7, and the lower walls of the recesses 6 are inclined as shown at *c* and lead to said portions 7, while the inner walls of the other two recessed portions 5 are inclined, as shown at *d*, all for the purpose presently to be explained.

The legs are formed in integral pairs, each pair consisting of leg members proper and designated by the numeral 9 which members are bent to form suitable feet that are not shown. The extremities of these members 9 are provided with fixed pivot studs 10 that are driven firmly through said members and extend loosely through the brackets so as to afford pivots for said members, and the studs that are pivoted to the brackets whose recesses 5 have the rectangular inner walls *a*, are provided on their inner ends with heads 11 that are spaced from the leg members, and loose around these particular studs and intermediate said heads and members are levers 12 which have teats 13 lanced therefrom and extending loosely through the leg members and abutting against the brackets, as more particularly shown at Figures 4, 5, and 6.

The legs are always under tension when they are housed within the recesses 5 and 6, and when they are opened they will contact the inclines *c* and will ride on the portion 7, thereby causing the legs to be resiliently forced inwardly, and when they have been fully opened they will be opposite the recesses 5 and will by their resiliency spring into said recesses, and will be retained in their open position, as against collapsing, by walls *a*.

All four of the leg members could be equipped with means for securing them as

against collapsing, but this is not necessary, since collapsing is impossible if one leg of each pair is so equipped.

When the legs are to be folded the lever 12 is depressed, thus forcing the teat or projection 13 against the bracket, and since the fulcrum or purchase of the lever is beneath the head 11, the leg will be deflected clear of the wall *a* and brought opposite the incline *b*, whereupon said leg and its complementary leg may be swung along the portion 7 until they are opposite the recesses 6, whereupon they will by their resiliency spring within these recesses.

It will, of course, be noted that the legs are under greater tension when they are riding in contact with the portion 7, so that it will be clear that the legs will be held by a firm spring action both in their opened and closed positions.

The rectangular recesses heretofore described are absolutely necessary, but various ways of releasing the legs from these recesses may be employed, and the invention is not limited to the specific release means shown.

What is claimed is:—

1. A service tray comprising a tray proper having corners, two sets of fixtures secured to the bottom of the four corners of the tray, one set at each end of the tray, said fixtures comprising depending brackets having vertically disposed recessed portions in their lower outer ends and horizontally disposed recessed portions at their inner upper ends, the stock of the brackets intermediate said recesses being forced inwardly, one of said vertically disposed recessed portions of each set of brackets having its side walls extending substantially at right angles to the back wall, the inner of said side walls terminating in a beveled portion that leads to said inwardly forced part of the brackets, while the outer wall of the horizontally disposed recessed portion is inclined and also leads to said inwardly forced part of the brackets, a leg element for each of the brackets, a pivot pin secured intermediate its ends to each of the leg elements having a head on one end and having its opposite end loosely received in an opening provided therefor in the bracket, and a lever pivoted to said pin intermediate the leg and head and having a teat projecting from its inner face and extending freely through an opening provided therefor in the leg adapted to contact with said bracket, whereby movement of the lever in one direction will force its pivoted end outwardly against said head and withdraw the leg from said rectangular recessed portion to a position opposite the bevel leading into said portion and thereby enable the leg to be folded.

2. A service tray comprising a tray proper having corners, two sets of fixtures secured to the bottom of the four corners of the tray, one set at each end of the tray, said fixtures comprising depending brackets having vertically disposed recessed portions in their lower outer ends and horizontally disposed recessed portions at their inner upper ends, the stock of the brackets intermediate said recesses being forced inwardly, one of said vertically disposed recessed portions of each set of brackets having its side walls extending substantially at right angles to the back wall, the inner of said side walls terminating in a beveled portion that leads to said inwardly forced part of the brackets, while the outer wall of the horizontally disposed recessed portion is inclined and also leads to said inwardly forced part of the brackets, a leg element for each of the brackets, and a pivot pin carried by each of the leg elements and having one of its ends loosely received in an opening provided therefor in the bracket whereby to afford lateral movement of the leg element and pivot pin with respect to the bracket.

3. A service tray comprising a tray proper having corners, two sets of fixtures secured to the bottom at the four corners of the tray, one set at each end of the tray, said fixtures comprising depending brackets having vertically disposed recessed portions in their lower outer ends and horizontally disposed recessed portions at their inner upper ends, the stock of the brackets intermediate said recesses being forced inwardly, one of said vertically disposed recessed portions of each set of brackets having its side walls extending substantially at right angles to the back wall, the inner of said side walls terminating in a beveled portion that leads to said inwardly forced part of the brackets, while the outer wall of the horizontally disposed recessed portion is inclined and also leads to said inwardly forced part of the brackets, a leg element for each of the brackets, a pivot pin secured intermediate its ends to each of the leg elements and loosely received in an opening provided therefor in the bracket, a head being formed on one end of a pivot pin for one leg at each end of the tray, and means interposed between said heads and leg elements to force the latter in a lateral direction toward and away from the bracket whereby swinging movement of the leg element is obtained.

In testimony whereof I affix my signature hereto.

GEORGE E. WHITNEY.