

[54] **INTERLOCKING SERVING TRAY**

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[51] Int. Cl. **B65d 21/02**

[58] Field of Search **220/23.4, 74, 23.6**

[56] **References Cited**

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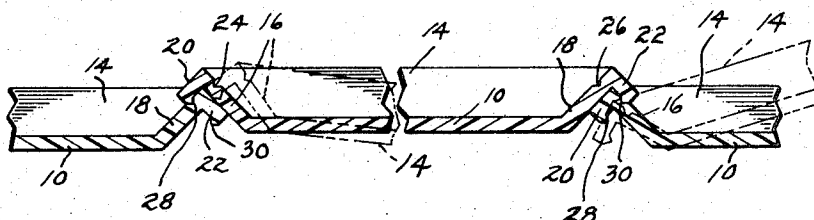
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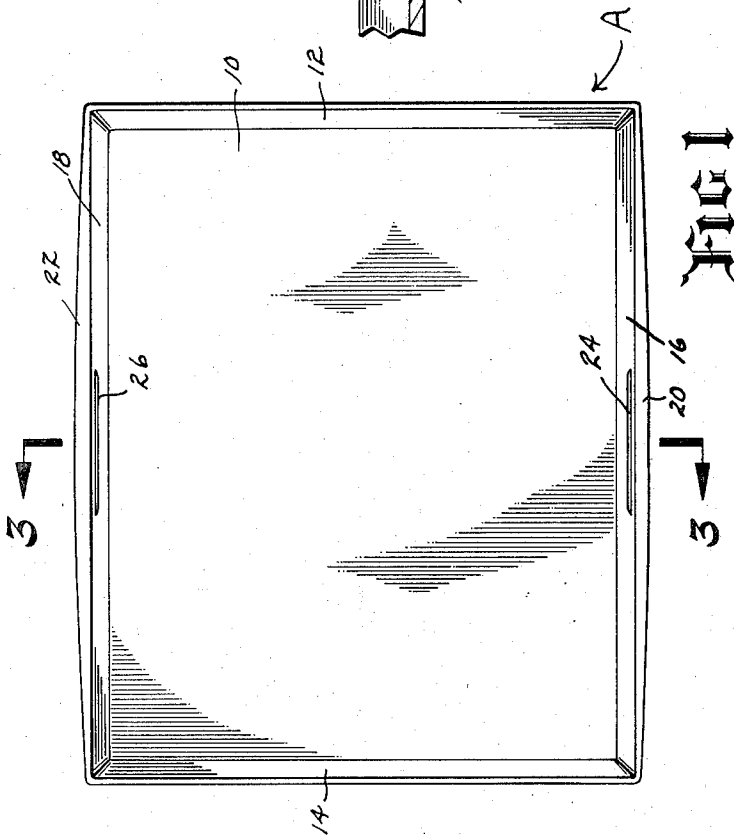
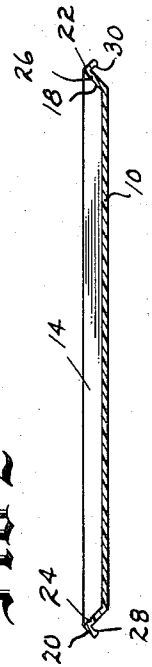
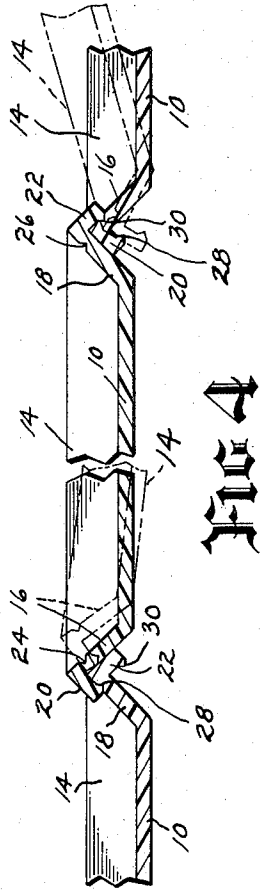
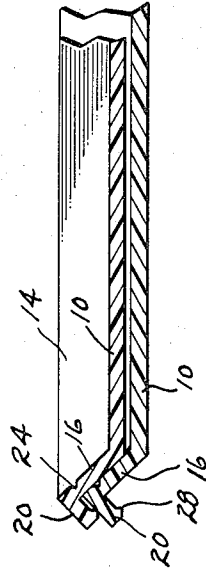
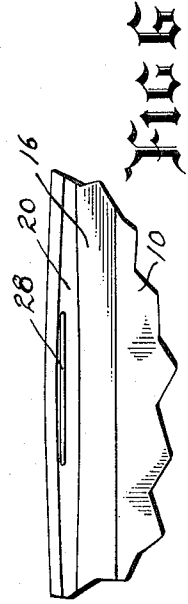
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[57] **ABSTRACT**

An interlocking tray including a flat bottom having opposed first and second end walls thereon with a first lip extending from the first end wall and a second lip extending from said second end wall together with a first locking groove on the first end wall and a second locking groove on the second end wall, and a first rib formed on said first lip of the first end wall for engagement with the second locking groove of the second end wall of another tray and a second rib formed on said second lip of the second wall for engagement with said first locking groove of a first end wall of another tray to removably connect the trays at the ends thereof.

2 Claims, 6 Drawing Figures





INTERLOCKING SERVING TRAY

SUMMARY

The invention relates to hand held trays for serving food, beverages and the like. It is an object of the invention to provide a tray that may be easily interlocked at its edge with the edge of another tray which allows easy removal of trays from a relatively deep and horizontally disposed container particularly found in use by the airlines.

It is a further object to provide a tray that may be interlocked with another like tray at different angles of initial contact of the edges of the trays inasmuch as the trays are not carefully aligned when stored, and when the trays are stored in deep containers one tray is used to pull another tray from the container. The containers referred to are of a depth that makes it quite difficult to remove a tray from which is within the innermost depth of the container.

It will not be here attempted to set forth and indicate all of the various objects and advantages incident to the invention, but other objects and advantages will be referred to in or else will become apparent from that which follows.

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In the drawings forming part of this application: FIG. 1 is a top plan view of a tray embodying the invention.

FIG. 2 is an engaging end view.

FIG. 3 is a sectional view on the line 3—3 of FIG. 1.

FIG. 4 is a longitudinal sectional view through three trays engaged in one possible position with portions thereof broken away and different angles of initial engagement contact of the trays shown in broken lines.

FIG. 5 is a section through a portion of two trays in nesting position.

FIG. 6 is a bottom plan view of a central portion of an end of the tray.

Referring to the drawings in detail, the tray A includes the substantially flat bottom 10 and formed on the side edges thereof are the oblique and outwardly diverging disposed side walls 12 and 14. Formed on one end edge of the bottom is the oblique and outwardly diverging first end wall 16 and formed on the other edge of the bottom is the oblique and outwardly diverging second end wall 18. The walls 12, 14, 16 and 18 are formed at substantially 135° to the bottom.

The numeral 20 designates a first lip depending from the first end wall at substantially a right angle to the first end wall 16. A second lip 22 depends from the second end wall 18 at substantially a right angle thereto. The lips 20 and 22 are widest at the central point and taper off to the sides 12. Further provided is first locking means in the form of the groove 24 formed substantially centrally in the upper surface of first end wall 16 and formed substantially centrally in the upper surface of the second end wall 18 is second locking means in the form of the groove 26. The grooves 24 and 26 are

centrally with respect to the side walls 12 and 14.

Formed on the underside of the lip 20 is complementary locking means in the form of the rib 28 which is substantially centrally of the lip with respect to the side walls 12 and 14, and formed on the underside of the lip 22 is complementary locking means in the form of the rib 30 which is substantially centrally of the lip with respect to the side walls 12 and 14.

The rib 28 is so positioned on the underside of the lip 20 that it engages the groove 28 when the lip 22 engages the underside of the end wall 16 to thus provide a snug tight interlocking fit. Similarly the rib 30 is so positioned on the underside of the lip 22 that it engages the groove 24 when the lip 20 engages the underside of the end wall 18.

With reference to FIG. 4 it will be seen that there is engagement of the trays as in the right one half of FIG. 3 when a tray happens to be tilted up at the end opposite engagement and the wall 16 engaged under the wall 18. On the other hand a tray may be so moved that the wall 16 and lip 20 go up and over the lip 22 which also results in engagement as illustrated on the left half of FIG. 4. Further, and depending upon how the trays make contact, we may have one lip of a tray going up and over another lip and the opposed lip on the other end of the tray going under a lip as shown in FIG. 4. Thus, no matter how the lips of the trays contact there will be locking engagement upon moving one against the other.

We claim:

1. An interlocking tray comprising:

- a. a flat bottom,
- b. wall means including a first end wall formed on and obliquely to said bottom,
- c. a second end wall formed on and obliquely to said bottom,
- d. a first lip extending from said first end wall,
- e. a second lip extending from said second end wall,

f. first locking means on said first end wall including a first groove in the inner surface of said first end wall,

g. second locking means on said second end wall including a second groove formed on the inner surface of said first end wall,

h. first complementary locking means on said first lip of said first end wall in the form of a rib for engagement with said second groove of said second end wall of another tray, and

i. second complementary locking means on said second lip of said second end wall in the form of a rib for engagement with said first groove of a first end wall of another tray to removably connect the trays at the ends thereof.

2. The device of claim 1 in which

a. said first lip is formed at a right angle to said first end wall, and

b. said second lip is formed at a right angle to said second end wall whereby said first lip contacts said second lip and when moved against said second lip said first lip rides upon the second lip and down upon said second wall allowing said first rib to engage said second groove.

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