

[54] **FOLDING PLASTIC TRAY**
[72] Inventor: **Harford E. Goings**, 5428 Center Drive,
Camp Springs, Md. 20031
[22] Filed: **July 14, 1970**
[21] Appl. No.: **54,688**
[52] U.S. Cl.**229/28 R**, 108/44, 206/72,
211/73, 229/2.5, 248/152
[51] Int. Cl.**B65d 1/36**
[58] Field of Search211/73; 108/44; 248/152;
224/48.2, 29.4, 42, 42 A; 229/2.5, 30, 28 R; 206/72

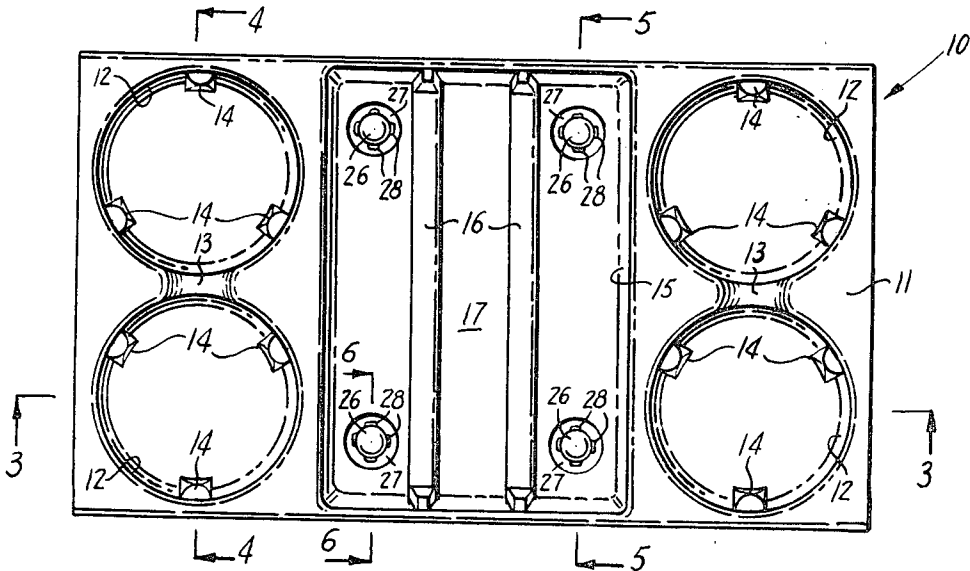
[56] **References Cited**

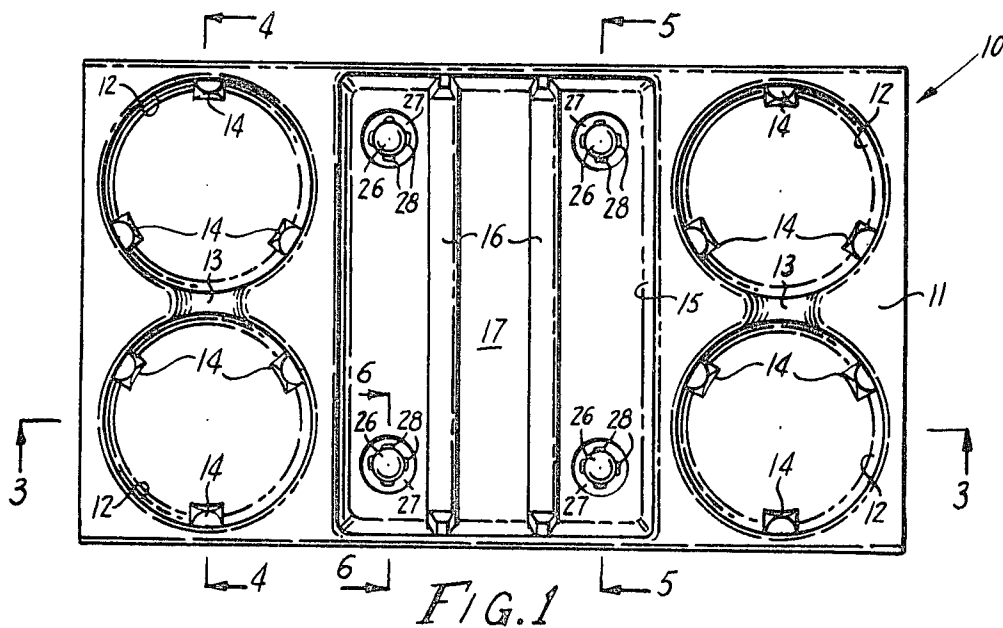
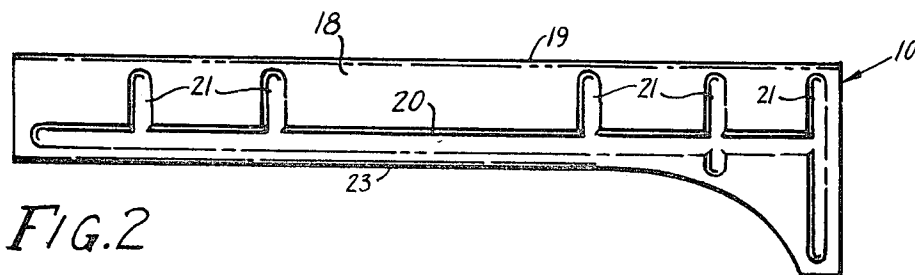
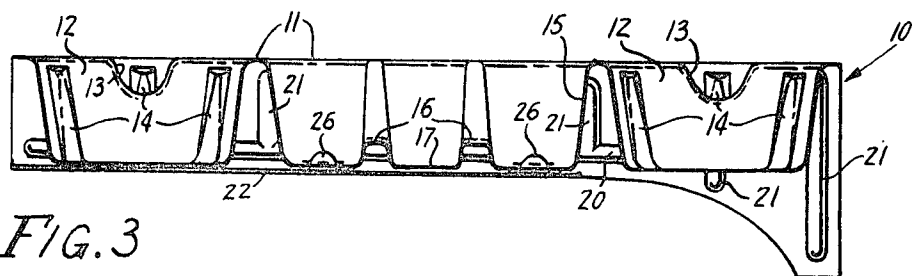
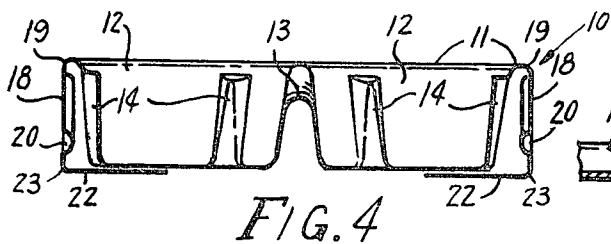
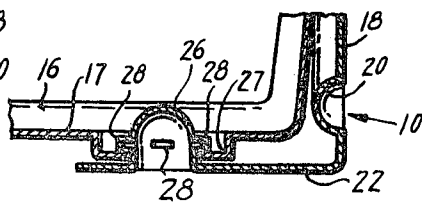
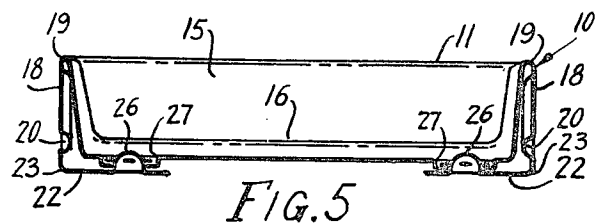
UNITED STATES PATENTS		
Des		
199,993	1/1965	Cohen.....108/25 UX
2,885,250	5/1959	Moore108/44 X
3,326,446	6/1967	Goings.....108/44 X
3,371,848	3/1968	Ward.....229/2.5 X
3,379,316	4/1968	Harrell.....211/73

3,434,650 3/1969 Goings.....206/72 X
Primary Examiner—Edward C. Allen
Assistant Examiner—Abraham Frankel
Attorney—Alexander B. Blair

[57] **ABSTRACT**
A folding plastic tray for supporting solid food and beverages in cups, bottles, or cans on the seat of a motor vehicle. The tray has side members which fold down to engage the seat with the side members each having a lower edge which is straight for a portion of its length and curves downwardly for the remaining portion of its length. A locking flap is hingedly connected to the straight portion of the edge of the side member and has male snap elements integrally formed thereon which snap through openings in the tray bottom to lock the sides in their erected position. Ribs in the bottom of the tray support the solid foodstuffs above the snaps to prevent accidental disengagement of the snaps from the snap openings due to the pressure of foodstuff thereon.

5 Claims, 7 Drawing Figures





INVENTOR.
HARFORD E. GOINGS
BY
Alexander B. Blair
ATTORNEY.

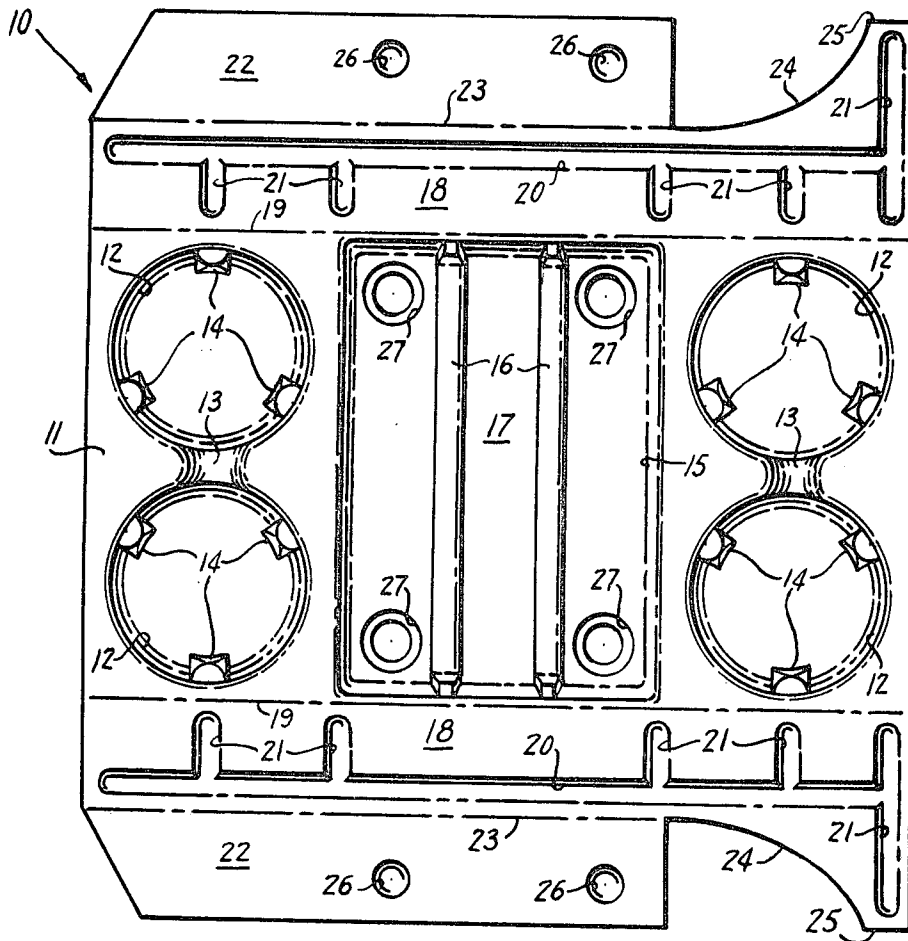


FIG. 7

INVENTOR.
 HARFORD E. GOINGS
 BY
 Alexander B. Blair
 ATTORNEY.

FOLDING PLASTIC TRAY

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to food service trays formed of relatively thin plastic which are shipped in a nested condition and are erected for use.

SUMMARY OF THE INVENTION

The present invention relates to a food service tray molded from relatively thin plastic and having compartments for cups and for solid foodstuffs. The tray has fold-down sides for supporting the tray on a motor vehicle seat and the sides in their erected position have lower edges which are straight for a portion of their length and which curve downwardly for a portion of the length so as to fit the seat and retain the tray in a generally level relation. A locking flap is hingedly connected to each of the sidewalls along the straight lower edge thereof. Male snap elements are integrally formed on the sidewalls for engagement with snap sockets in the tray bottom, to lock the flaps to the tray bottom and hold the sidewalls in their erected position.

The primary object of the invention is to provide a molded plastic tray having sidewalls for supporting the tray with the sidewalls locked to the tray bottom to retain them rigidly in erected position.

Other objects and advantages will become apparent in the following specification when considered in the light of the attached drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top plan view of the invention;
FIG. 2 is a side elevation of the invention;
FIG. 3 is a vertical sectional view taken along the line 3—3 of FIG. 1, looking in the direction of the arrows;
FIG. 4 is a transverse cross section taken along the line 4—4 of FIG. 1, looking in the direction of the arrows;
FIG. 5 is a transverse cross section taken along the line 5—5 of FIG. 1, looking in the direction of the arrows;
FIG. 6 is an enlarged fragmentary transverse section taken along the line 6—6 of FIG. 1, looking in the direction of the arrows; and
FIG. 7 is a top plan view of the molded tray blank prior to erection.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings in detail wherein like reference characters indicate like parts throughout the several figures the reference numeral 10 indicates generally a molded plastic serving tray constructed in accordance with the invention.

The tray 10 is formed of a relatively thin plastic which is molded by any desired molding method to the finished shape.

The tray 10 includes a top wall 11 having a generally rectangular form and including a pair of adjacent generally circular cup-holding depressions 12 connected by a recess 13 in the top wall 11. The cup-holding depressions 12 are tapered to facilitate nesting and have three vertical ribs 14 extending up the sidewalls thereof in equispaced relation. A pair of generally circular depressions 12 are similarly formed at the opposite end of the top wall 11. A generally rectangular compartment 15 is formed in the top wall 11 intermediate the pairs

of circular depressions 12. The compartment 15 has a pair of ribs 16 which extend vertically down the opposite end walls and across the bottom wall 17 thereof in spaced parallel relation. A sidewall 18 is hingedly connected to each side of the top wall 11 along a fold line 19. Each of the sidewalls 18 have a longitudinal rib 20 extending therealong with a plurality of vertical ribs 21 extending upwardly from the longitudinal rib in spaced parallel relation. The sidewall 18 has a flap 22 hingedly secured thereto along a fold line 23 spaced from and parallel to the fold line 19. An arcuate lower edge 24 extends from the straight edge 23 downwardly to a lower edge 25 of the flap 18.

A pair of male snap members 26 are integrally formed in the flap 22 in spaced-apart relation. The compartment 15 has a snap socket 27 formed in the bottom wall 17 thereof adjacent each corner of the compartment 15. The male snap members 26 on the flap 22 are adapted to engage through the sockets 27 with detents 28 on the snap members 26 locking in the sockets 27 as can be seen in FIGS. 1 and 6.

In the use and operation of the invention the molded plastic trays 10 are nested and shipped to the point of use as a blank as can be seen in FIG. 7. When ready for use the sidewalls 18 are folded into parallel relation and the flaps 22 are folded to underlie the bottom 17 of the compartment 15 with the male snap members 26 forced upwardly through the sockets 27 locking the flaps to the bottom 17 of the compartment 15. The sidewalls 18 are thus rigidly supported along their edges 23 to provide a stable support for the tray 10 when used in a motor vehicle.

Having thus described the preferred embodiment of the invention it should be understood that numerous structural modifications and adaptations may be resorted to without departing from the spirit of the invention.

What is claimed is:

1. A molded plastic serving tray comprising a generally rectangular top wall, a plurality of generally circular depressions formed in said top wall for supporting cups, a generally rectangular central compartment formed in said top wall with said central compartment having a generally horizontal bottom wall, a pair of sidewalls hingedly connected to opposite side edges of said top wall, each of said sidewalls having a portion of its bottom edge straight and parallel with said top wall, and the remaining portion of said bottom edge curving downwardly, a flap hingedly secured to the bottom straight edge portion of each of said sidewalls, and means on said flaps for rigidly securing each of said flaps to the bottom wall of said compartment with said sidewalls in spaced parallel relation.

2. A device as claimed in claim 1 wherein the means on said flaps for rigidly securing said flaps to the bottom wall of said compartment comprises a pair of male snap members integrally formed in each of said flaps and a snap socket formed in the bottom wall of said compartment adjacent each corner thereof with each said male snap member engageable in one of said snap sockets.

3. A device as claimed in claim 2 wherein said male snap members each have a plurality of locking detents integrally formed thereon.

4. A device as claimed in claim 3 wherein said tray is molded of relatively thin plastic and is nestable for shipment.

5. A device as claimed in claim 4 wherein spaced parallel ribs are formed in the bottom wall of said compartment and extend up in the sidewalls thereof to support solid food therein above the male snap elements engaged through said snap sockets.

* * * * *