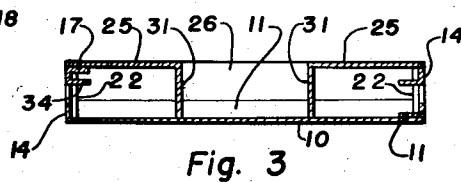
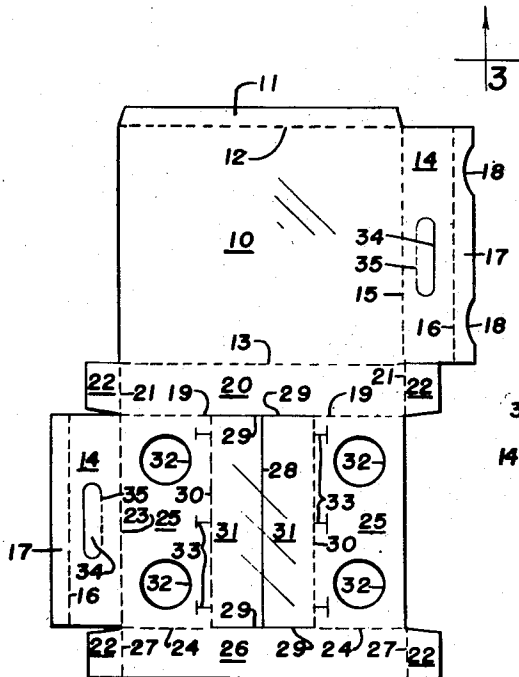
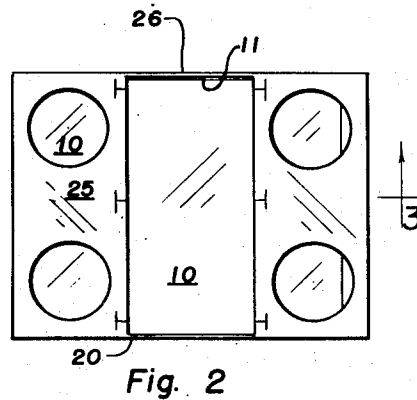
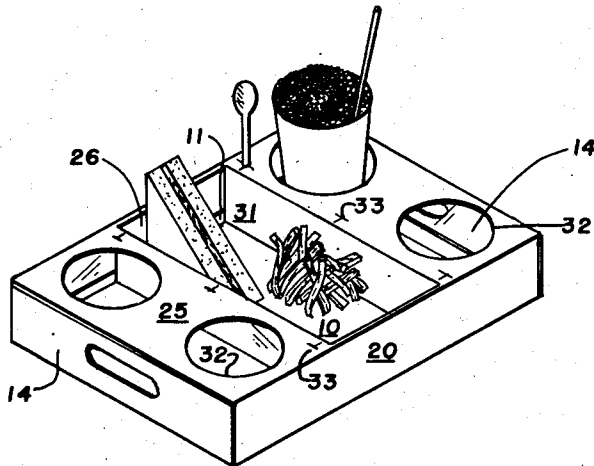


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PAPERBOARD SERVING TRAY

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PAPERBOARD SERVING TRAY

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1 Claim. (Cl. 229—28)

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This invention relates to trays for the serving and handling of foods and drinks, and more particularly to such trays adapted for use where customers are served exteriorly of the purveying establishment, as at "drive-ins," locations giving "curb service," and the like, and has as an object to provide an improved, low-cost, dispensible tray unit efficiently arranged for the simultaneous accommodation of foods and drinks.

A further object of the invention is to provide an improved serving tray construction susceptible of development from paper-board and analogous low-cost sheet material.

A further object of the invention is to provide an improved serving tray susceptible of production in compact, flat, unit form subsequently erectible into form for practical use.

A further object of the invention is to provide an improved dispensible, paper-board, serving tray adaptable to facile production in a variety of sizes and capacities.

With the foregoing and other objects in view, my invention consists in the construction, arrangement, and combination of elements hereinafter set forth, pointed out in my claim, and illustrated by the accompanying drawing, in which—

Figure 1 is an isometric view of a typical embodiment of the improved tray as erected and partially charged, ready for use. Figure 2 is a top plan view of the tray shown in Figure 1, prior to charging. Figure 3 is a cross section taken substantially on the indicated line 3—3 of Figure 2. Figure 4 is a plan view of the blank from which the tray is developed.

The improved tray is formed from a generally rectangular, single sheet of inexpensive material, such as paper-board, having the properties of strength and rigidity pertinent to the tray size and ultimate use, which sheet is scored with fold lines, incised, and trimmed, conveniently in a single mechanical operation common in the manufacture of paper products, to outline and define the elements and element associations constituting the tray.

The sheet blank for the tray has a length customarily exceeding its width and is worked at one end with a longitudinal trimmed edge and perpendicularly related score lines which define a solid, rectangular area 10 adapted to function as

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the bottom of the ultimate tray, said area 10 having a dimension longitudinally of the blank equal to the width of the finished tray and a dimension laterally of the blank determinative of the tray length. The end of the blank adjacent the area 10 extends beyond said area a short distance to provide a relatively narrow attaching tab 11 transversely of the blank and separated from the said area by a score line 12 perpendicular to the area-limiting, trimmed edge of the blank, and a score line 13 spacedly paralleling said line 12 separates the area 10 from the remainder of the blank. At the side of the area remote from the blank trimmed edge forming one side of said area, a lateral extension of the blank material is provided as a wing 14 separated from said area by a score line 15 spacedly paralleling the area trimmed edge, said wing having a length longitudinally of the blank the same as the corresponding area 10 dimension and a width laterally of the blank, determined by a score line 16 spacedly and outwardly paralleling the line 15, equal to and determinative of the depth desired for the finished tray. The blank material forming the wing 14 continues beyond the score line 16 as a relatively narrow, locking tab 17, coextensive in length with said wing, whereof the free margin is trimmed to generally parallel the area 10 trimmed edge and may be arcuately relieved, as at 18, for reasons that will hereinafter appear.

Paralleling the score line 13 at a distance therefrom corresponding with the width of the wing 14, a score line 19 determines a central area of the blank in a size and relationship to constitute a side wall 20 of the tray, the material of said wall 20 projecting laterally at each side of the blank beyond score lines 21 aligned respectively with the score line 15 and the trimmed edge of the area 10 to provide locking tabs 22 whereof the projected margins are trimmed and cut away from adjacent blank material to permit the said tabs to fold on their score lines 21 into perpendicular relation with the wall 20.

A trimmed blank long margin aligned with the score line 15 and colinear line 21 and a spacedly parallel score line 23 aligned with the area 10 trimmed edge and colinear score line 21 cooperate with a perpendicularly-related score line 24 spacedly paralleling the line 19 to define

a blank area 25 equalling the area 10 in size and shape and spaced from the latter by the wall 20, said area 25 constituting the top of the finished tray, and a wing 14, identical with that formed on one side of the area 10, projects laterally of the blank from the area 25 with its score line 16 outwardly paralleling the line 23 and its locking tab 17 projected from the blank side opposite that interrupted by the corresponding wing of the area 10. The end of the blank adjacent the area 25 is trimmed to an edge outwardly paralleling the score line 24 and spaced therefrom a distance corresponding to the wing 14 width, thereby to provide an area 26, identical with the wall 20, constituting the second tray side wall, and score lines 27 traverse said area 26 in alignment, respectively, with the score line 23 and area 25 trimmed margin to develop locking tabs 22 from blank material at and projected outwardly beyond the opposite ends of said area 26, thus completing the outline of the tray blank.

It is to be noted that the tray blank outline is such as to permit of its being cut efficiently, and with minimum waste, from stock sheets or rolls of the material employed, the wing and tab projections of the blank being so arranged as to interfit with the outline of an adjacent or successive like blank.

To condition the tray top area 25 for the intended use of the unit, said area is centrally cut or incised, longitudinally of the blank, to form a line of separation 28 spanning between the score lines 19 and 24, and central portions of said score lines are cut through the material, as at 29, on each side of the line 28 and to the intersection therewith of score lines 30 traversing the area 25 in parallelism with and on opposite sides of the line 28 at like distances outwardly from the latter equal to the wing 14 width, said cuts 28 and 29 hence cooperating with the score lines 30 to define opposed flaps 31 foldable independently into perpendicular relation with the area 25. The rectangular area 25 portions at the sides of the flaps 31 are formed with symmetrically-arranged, circular openings 32, four such being illustrated, of a size to receive and support a drink container, such as a paper cup, and T-shaped incisions 33 are spaced apart to close with their stems against the score lines 30 in intersecting relation with the area 25 portions adjacent the flaps 31.

Completing the working of the blank, each wing 14 is similarly and centrally incised along the outer margin and both ends of an elongate panel 34 sized to open accommodation for the human fingers, and the inner margin of each said panels is defined by a score line 35 bridging between the panel end incisions as a line of weakness whereon the associated panel may fold out of coplanar relation with its wing 14.

Working and conditioning of the tray blank having been completed as illustrated by Figure 4 and above described, the production processes are concluded through interconnection of the opposite blank ends. The blank is folded on the two score lines 12 and 19, or, alternatively, on the two lines 13 and 24, it being immaterial which pair of lines is employed, to bring the two major areas 10 and 25 of the blank into non-registered superposition and the trimmed edge margin of the area 26 into alignment with the score line 12 in overlapping relation of the area 26 outer portion on and over the tab 11, whereafter said tab is adhesively, or otherwise, secured to the area 26 overlying portion to complete the unit, as a flat,

compact item convenient of storage and transportation, ready for the user.

As supplied to the user, the top and bottom areas of the tray are in superposition and out of registration by the width of one of the side wall units 20 and 26 with the wings 14 and tabs 22 projecting in coplanar relation with their respective areas from opposite sides of the unit. To condition the tray for use, the unemployed, transverse score lines are brought into play with consequent registration of the areas 10 and 25 in a spaced relation determined by the side walls 20 and 26 perpendicularly connecting therebetween, whereafter the tabs 22 are folded on their score lines 21 and 27 to enter and engage between the areas 10 and 25 in perpendicular projection from their respective walls 20 and 26, the tabs 17 are bent on their score lines 16 inwardly toward the assembly and into perpendicular relation with their wings 14, said wings are bent on their score lines 15 and 23 toward the assembly and into perpendicular relation with their respective areas 10 and 25, thereby entering the tabs 17 under one or the other of said areas to interlock with margins of the tabs 22 and dispose the wings 14 as end closures for a rectangular box, and the flaps 31 are pressed inwardly into perpendicular relation with their area 25 portions, hinging on their score lines 30, to free, long margin engagement with the inner surface of the area 10, thus quickly and easily erecting the tray for use.

As should be obvious, the circular openings 32 through the top of the erected tray conveniently receive and adequately support cups or containers charged with either hot or cold drinks, it being convenient, when desired, to form smaller, supplementary holes through the area 25 portions for the reception of containers charged with sugar, cream, and the like, and the open central area of the tray defined between the bottom 10, flaps 31, and side walls 20 and 26 effectively and conveniently accommodates sandwiches, chips, and like comestibles characteristic of lunch orders, while the T-shaped cuts 33 yield to the introduction of and operate to hold and support paper or wooden utensils, soda straws, and analogous facilities. Transportation and manipulation of the charged tray is facilitated by the provision of panels 34 which readily swing inward about their score lines 35 in response to finger-tip pressures and open a passage through which the fingers may naturally engage to lift and move the tray.

The association of perpendicularly-related, interlocked top, bottom, side wall, end wall, and tab elements, supplemented by the uniquely-positioned flaps 31, provides a tray of adequate strength and rigidity, even when sheet material of light weight and nominal cost is employed in the production of the blank, which, together with the simplicity of manufacture, contributes to the provision of a dispensable unit employable to obviate the complications, expense, and annoyances incident to conventional serving practices.

Since changes, variations, and modifications in the form, construction, and arrangement of the elements shown and described may be had without departing from the spirit of my invention, I wish to be understood as being limited solely by the scope of the appended claim, rather than by any details of the illustrative showing and foregoing description.

I claim as my invention:

A serving tray comprising a shallow, rectangular, paper-board fold-box characterized by

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spacedly-parallel, coextensive top and bottom areas fold-locked against separation and spacedly-parallel end closures perpendicular to said top and bottom areas, a food-receiving compartment opening centrally and transversely through the full width of the box top area defined between side walls incised from and folded into perpendicular relation with said top area and end engagement with the box sides interiorly of the box, receptacle-accommodating openings spacedly intersecting the top area portions at the sides of said compartment, utensil-accommodating, T-shaped incisions spacedly intersecting the top area portions between the sides of said compartment and the adjacent openings, and a flap incised from and centrally of each box end closure displaceable inwardly of the box to open a finger-accommodating, carrying aperture.

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