Feb. 18, 1969 M. SCHNUR ETAL 3,428,381

UTENSIL TRAY

Filed Sept. 22, 1965 Sheet 1 of 4

FIG. 1

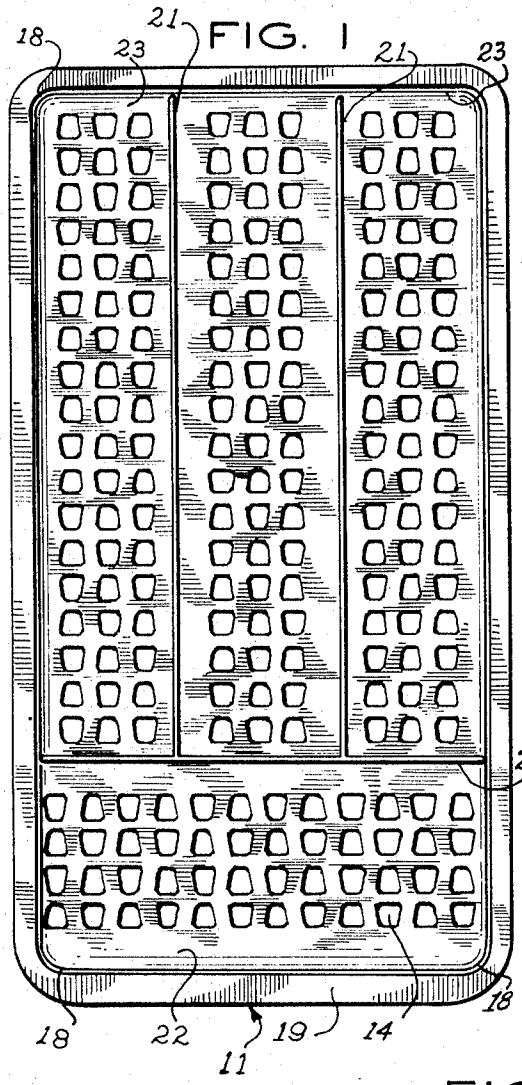


FIG. 2

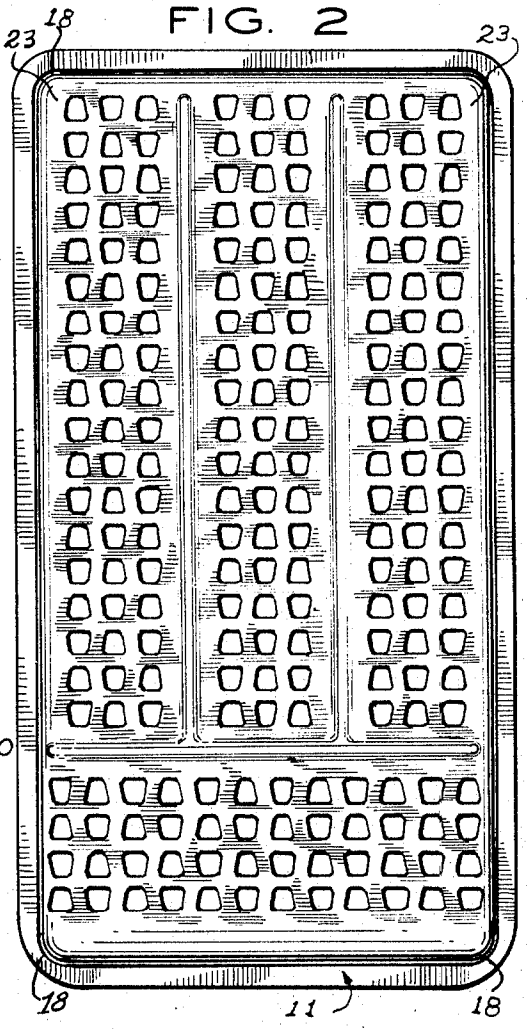


FIG. 3

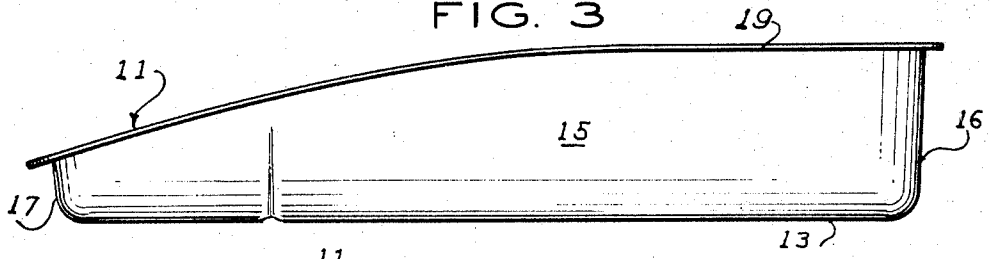
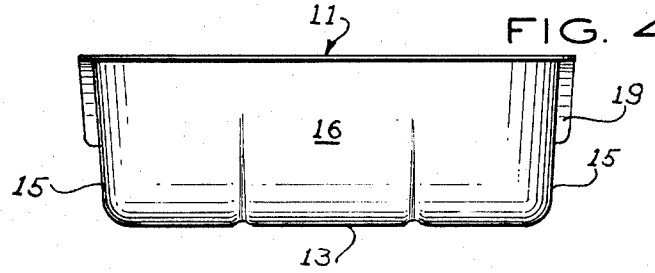


FIG. 4



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Feb. 18, 1969 M. SCHNUR ETAL 3,428,381

UTENSIL TRAY

Filed Sept. 22, 1965

Sheet 2 of 4

FIG. 5

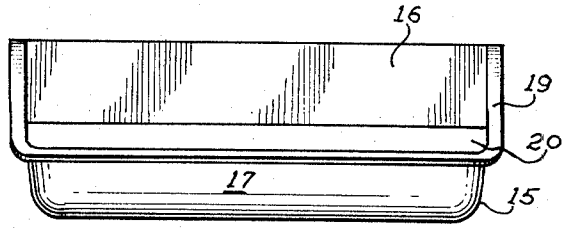


FIG. 6

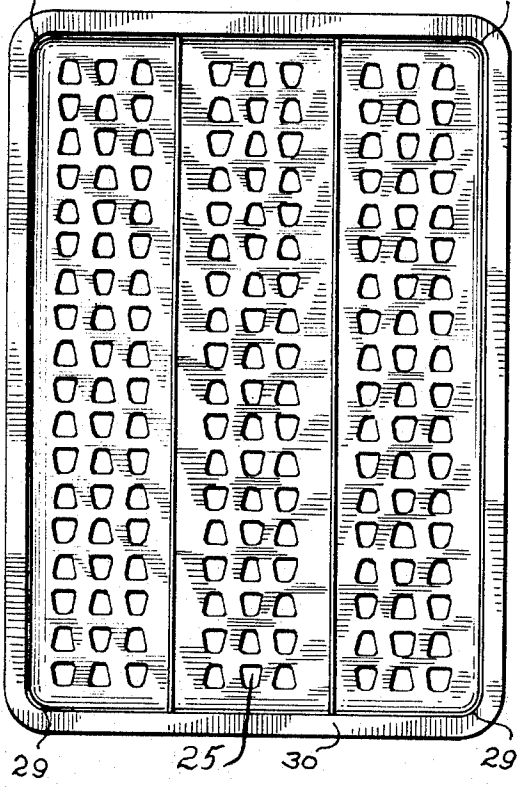


FIG. 7

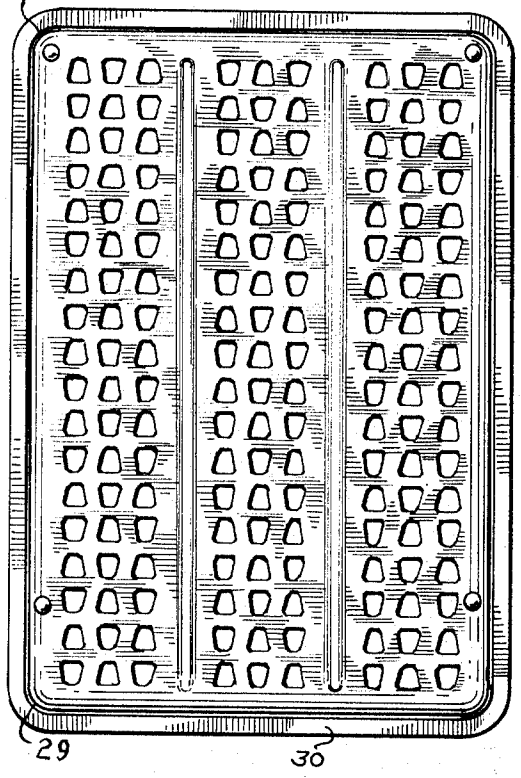


FIG. 8

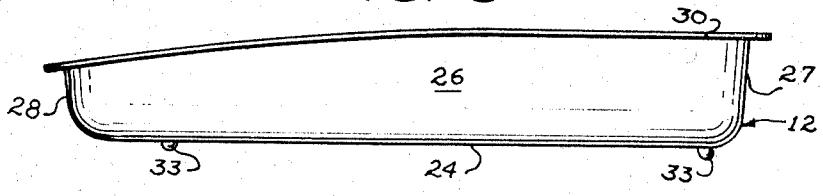
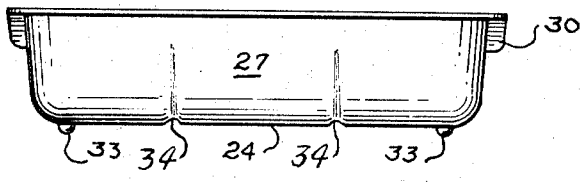


FIG. 9



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Feb. 18, 1969 M. SCHNUR ETAL 3,428,381

UTENSIL TRAY

Filed Sept. 22, 1965 Sheet 3 of 4

FIG. 10

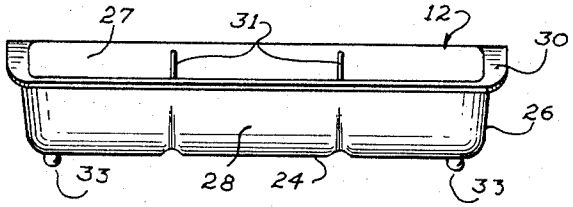


FIG. 11

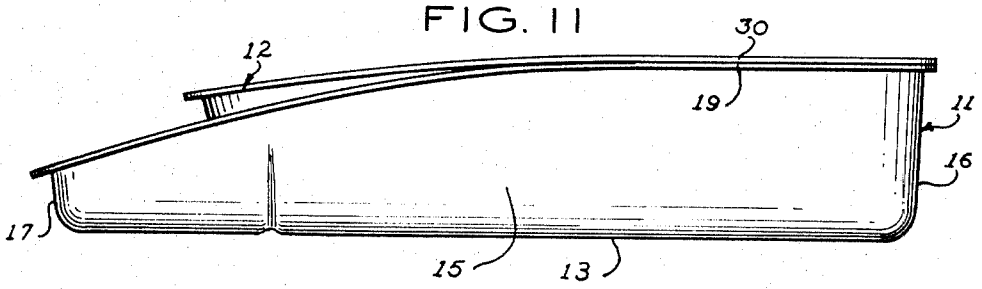
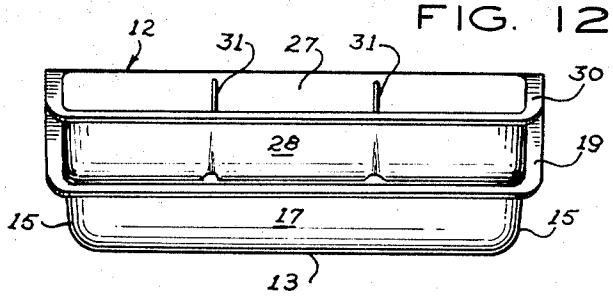


FIG. 12



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Feb. 18, 1969 M. SCHNUR ETAL 3,428,381

UTENSIL TRAY

Filed Sept. 22, 1965 Sheet 4 of 4

FIG. 13

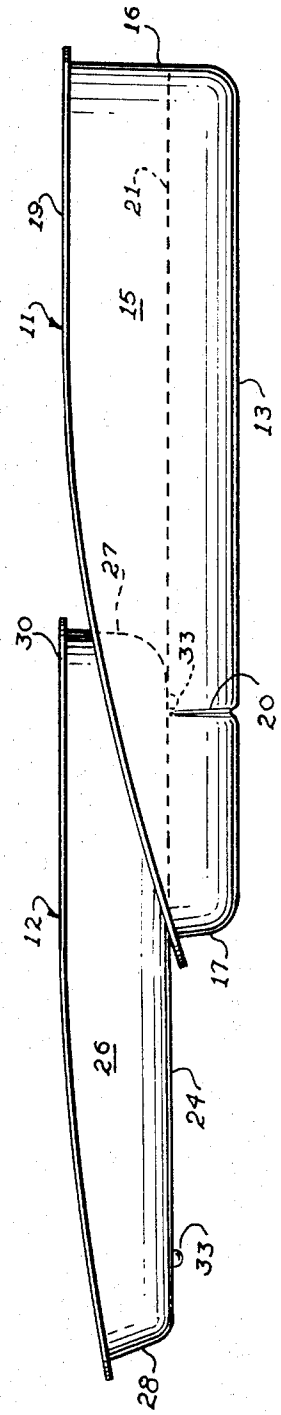
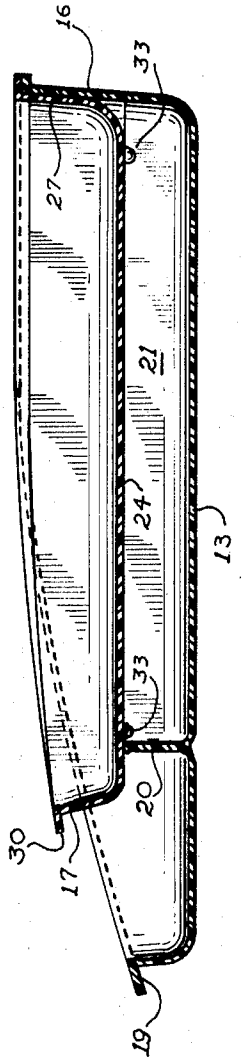


FIG. 14



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3,428,381

UTENSIL TRAY

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Filed Sept. 22, 1965, Ser. No. 489,230
U.S. Cl. 312—107 10 Claims
Int. Cl. B65d 21/00; A47b 87/02

ABSTRACT OF THE DISCLOSURE

Stacked utensil trays wherein (a) the top tray is provided with bottom channels slidable on central partitions of the bottom tray; (b) rear and side walls on the bottom tray act to restrain the rearward movement of the top tray; (c) the top tray is provided with rear and side flanges normally resting on rear and side flanges of the bottom tray.

Our invention relates to utensil trays generally and specifically to a pair of cooperative, stacked utensil trays adapted for insertion in a drawer.

Among the objects and advantages of our invention is to provide a pair of cooperative, stacked utensil trays in which a top tray is nested between the side walls and against the rear wall of a bottom tray.

Another object of our invention is to provide a pair of cooperative, stacked utensil trays in which a top tray is slidably mounted on partitions in a bottom tray.

Yet a further object of our invention is to provide a pair of cooperative, stacked utensil trays in which the bottom tray is provided with a transverse, upstanding partition and a plurality of spaced apart, upstanding longitudinal partitions which divide the bottom tray into a plurality of compartments.

A further object of our invention is to provide a pair of cooperative, stacked, utensil trays in which the rear and side walls of the bottom tray extend above the topmost edges of the aforesaid partitions thereby providing a nest for the top tray.

A further object of our invention is to provide a pair of cooperative, stacked, utensil trays in which a generally rectangular top tray is provided with detents depending from the four corners of its bottom, the front pair of which seat immediately behind the aforesaid transverse partition of the bottom tray, thereby preventing accidental displacement of the top tray with respect to the bottom tray.

Still a further object of our invention is to provide a pair of cooperative, stacked utensil trays in which the bottom of the top tray has a plurality of upwardly concave, spaced apart, generally parallel longitudinal grooves equal in number to and positioned in registration with the top edges of the longitudinal partitions in the bottom tray and slidably engageable therewith.

Yet another object of our invention is to provide a pair of coperative, stacked utensil trays in which the front wall of the bottom tray is dimensioned lower than the transverse partition therein to permit hand access to the top tray, the top tray being slidable forwardly beyond the front wall of the bottom tray.

Yet still a further object of our invention is to provide a pair of cooperative, stacked utensil trays in which the front wall of the top tray extends forwardly beyond the transverse partition in the bottom tray for grasping and sliding the top forwardly upon the bottom tray.

Still yet another object of our invention is to provide a pair of cooperative stacked utensil trays in which both the top and bottom trays are each provided with a continuous, radially outwardly extending flange running along the top edges of the peripheral walls thereof.

Yet another object of our invention is to provide a pair of cooperative, stacked utensil trays in which the front wall of each tray is lower than the rear wall of each tray so as to provide easy access from the front in a drawer of limited height.

Another object of our invention is to provide a pair of cooperative, stacked utensil trays having holes in each bottom thereof for drainage or air circulation.

It has been found that stacked utensil trays can provide convenience and accessibility if the top tray is slidable on the bottom tray. This is provided for by sliding bottom channels in the top tray on the top of partitions in the bottom tray. In addition, the top tray is supported by rear and left side and right side flanges which are slidable on rear, left and right side flanges on the bottom tray.

These objects and advantages as well as other objects and advantages may be achieved by our invention one embodiment of which is illustrated in the drawings in which:

FIGURE 1 is a top plan view of the bottom tray;

FIGURE 2 is a bottom plan view of the bottom tray shown in FIGURE 1;

FIGURE 3 is a side elevational view of the bottom tray;

FIGURE 4 is a rear elevational view of the bottom tray;

FIGURE 5 is a front elevational view of the bottom tray;

FIGURE 6 is a top plan view of the top tray;

FIGURE 7 is a bottom plan view of the top tray shown in FIGURE 6;

FIGURE 8 is a side elevational view of the top tray;

FIGURE 9 is a rear elevational view of the top tray;

FIGURE 10 is a front elevational view of the top tray;

FIGURE 11 is a side elevational view of the top and bottom trays nested together;

FIGURE 12 is a front elevational view of the top and bottom trays nested together;

FIGURE 13 is a side elevational view of the bottom tray with the top tray slid forwardly thereon;

FIGURE 14 is a side elevational cross-sectional view of the top and bottom trays nested together.

Referring now to the drawings in detail, our utensil trays comprise a bottom tray **11** and a top tray **12**. The bottom tray **11** comprises a generally rectangular, flat bottom **13** having a plurality of openings **14**. The flat bottom **13** has formed integrally therewith a pair of upstanding, slightly outwardly flared side walls **15**, **15**, a rear wall **16** and a front wall **17**. The side walls **15**, **15** and the front and rear walls **16** and **17** are integrally connected by arcuate corners **18**, **18**, etc.

The top edge of the side walls **15**, **15** are horizontal for a distance extending forwardly from the rear wall **16** and then slope gently arcuately downwardly toward the front wall **17** which is dimensioned shorter than the rear wall **16**. The side walls **15**, **15**, the rear wall **16** and front wall **17** are provided with a continuous, radially outwardly extending flange **19** running along their top edges.

The bottom tray **11** is provided with a generally vertical, upstanding transverse partition **20** formed integrally with the bottom **13** and extending between and formed integrally with the side walls **15**, **15**. Formed integrally with the bottom **13** are a pair of parallel, generally vertical upstanding longitudinal partitions **21**, **21** formed integrally with and extending between the transverse partition **20** in the rear wall **16**. There is thus defined a front compartment **22** between the transverse partition **20** and the front wall **17** and three longitudinally separated rear compartments **23**, **23**, **23** extending between the transverse partition **20** and the rear wall **16**.

The transverse partion **20** and the longitudinal partitions **21**, **21** are of the same height and their top edges

lie in a horizontal plane parallel to the plane of the bottom 13. The height of the partitions 20 and 21, 21 is slightly greater than the height of the front wall 17 as can be most clearly seen in FIGURES 13 and 14. The top edges of the partitions 20 and 21, 21 defined supporting members for the top tray 12.

The top tray 12 comprises a flat bottom 24 having a plurality of openings 25. Formed integrally with the bottom 24 are a pair of side walls 26, 26 which flare slightly outwardly in an upward direction in angular conformity with the outward flare of the side walls 15, 15 of the bottom tray 11. Formed integrally with the bottom 24 is a rear wall 27 and a front wall 28. The side walls 26, 26 are joined to the front and rear walls 28 and 27 respectively, by arcuate corners 29. The side walls 26, 26 have a flat, generally horizontal top edge extending horizontally for a distance forwardly from the rear wall 27 and then gently arcuately downwardly to the front wall 28. The side walls 26, 26 and the front and rear walls 27 and 28 respectively are provided with a continuous, radially outwardly extending flange 30 running along their top edges.

The bottom 24 of the top tray 12 is provided with a pair of parallel, spaced apart, upwardly concave longitudinally grooves 34, 34 which are in registration with and receive the top edges of the partitions 21, 21 of the bottom tray 11 when the top tray 12 is nested therein.

The top tray 12 is provided with a pair of parallel, generally vertical, upstanding longitudinal partitions 31, 31 formed integrally with the bottom 24 and extending between and formed integrally with the front wall 28 and rear wall 27. The partitions 31 divide the top tray 12 into three longitudinally extending compartments 32, 32, 32.

The rear wall 27 of the top tray 12 is taller than the front wall 28. The top edges of the partitions 31, 31 lie beneath the top edge of the rear wall 27 and extend in a generally horizontal plane for a distance extending forwardly from the rear wall 27. The top edges of the partitions 31, 31 then slope arcuately downwardly toward the front wall 28 being generally as high as a front wall 28 at the point of connection.

The external transverse diameter in all horizontal planes of the top tray 12 is slightly less than the internal transverse diameter in all horizontal planes of the bottom tray 11. The length of the top tray 12 is slightly greater than the distance between the partition 20 and rear wall 16 of the bottom tray 11. Thus, the top tray 12 can nest or stack between the side walls 15, 15 of the bottom tray 11 being supported upon the top edges of the partitions 20 and 21, 21.

The bottom 24 of the top tray 12 is provided with detents 33, 33, 33, 33 depending generally from the corners thereof. The detents 33, 33 at the front of the top tray 12 are positioned to seat immediately behind the transverse partition 20 of the bottom tray 11 when the rear wall 27 of the top tray 12 is engaged with the rear wall 16 of the bottom tray 11. The height of the side walls 26, 26 of the top tray 12 are dimensioned so that the flange 30 on the top tray 12 rests on top of the flange 19 on the bottom tray 11 for a distance extending forwardly at the rear of the two trays. Thus, the height of the rear wall 16 of the bottom tray 11 is slightly less than the collective heights of the rear wall 27 of the top tray 12 and the transverse partition 20 and longitudinal partitions 21, 21 of the bottom tray 11. The detents 33, 33 at the front of the top tray 12 prevent the top tray 12 from sliding forwardly on the partitions 20, 21—21 until the top tray 12 is lifted slightly. The detents 33, 33 at the rear of the top tray 12 prevent complete disengagement of the top tray 12 from the bottom tray 11 as it is pulled forwardly unless the bottom-rear of the top tray 12 is lifted by either depressing the front of the top tray 12 or by lifting the entire said top tray.

In operation, the bottom tray 11 is inserted in a drawer and utensils placed in the compartments 23, 23, 23. In addition, utensils may optionally be placed in compartment 21. The top tray 12 is then slid rearwardly over the transverse partition 20 with the longitudinal partitions 21, 21 slidably engaging the longitudinal grooves 34, 34 in the bottom 24 of the top tray 12. As indicated above, the detents 33, 33 at the rear of the top tray 12 must be lifted over the transverse partion 20 of the bottom tray 11 in order that the top tray 12 can slide rearwardly. This may be accomplished by depressing the front wall 28 of the top tray 12 momentarily as the detents 33, 33 at the rear of the top tray 12 pass over the top edge of the transverse partition 20. The front wall 28 of the top tray 12 may then be lifted slightly so that the detents 33, 33 on the front-bottom thereof may pass over the top edge of the transverse partition 20 of the bottom tray 11. Thus, the top tray becomes nested between the side walls 15, 15 of the bottom tray 11 and stacked vertically upon the top edges of the partitions 20 and 21, 21 thereof.

In the event that the height of the drawer into which our trays are placed is sufficient, utensils may be placed in compartments 32, 32, 32 in the top tray 12 while it is stacked above and nested within the bottom tray 11. However, in the event that the height of the drawer is insufficient, utensils may be placed in or withdrawn from the top tray 12 by sliding the top tray forwardly on the bottom tray as is illustrated in FIGURE 13.

Since the top tray 12 is shorter than the bottom tray 11, compartment 22 between partition 20 and the front wall 17 of the bottom tray is always exposed until the top tray 12 is slid forwardly beyond partition 20. Nevertheless, since the top tray 12 extends forwardly beyond the partition 20 of the bottom tray 11, the top tray may be easily grasped by the fingers and pulled forwardly.

Since the arcuate downward inclination of the flange 19 on the bottom tray 11 is greater than the arcuate downward inclination of the flange 30 on the top tray 12 a wedge shaped separation gradually increasing in the direction of the front of the trays is defined. The top tray 12 may be lifted slightly by insertion of the finger between the flanges 19 and 30 and then running the finger rearwardly to wedge the top tray 12 upwardly with respect to the bottom tray 11. In this manner, the top tray 12 can be lifted so that the front detents 31, 31 on the bottom thereof will pass over the top edge of the partition 20 in the bottom tray 11.

The openings 14 in the bottom 13 of the bottom tray 11 and openings 25 in the bottom 24 of the top tray 12 permit air circulation around the utensils. In the event that the trays 11 and 12 are withdrawn from the drawer and employed to dry wet utensils, the openings not only provide air circulation but also provide means for the discharge of water. In this regard, it should be borne in mind that both trays are preferably made of some limitedly flexible plastic material such as polyethylene or the like. Thus, the bottom 13 of the bottom tray 11 is rarely absolutely horizontal and thus engaged with any surface upon which it rests. Thus, water flowing from utensils in any of the compartments of tray 11 may escape downwardly through the openings 14. In the alternative, detents can be provided on the bottom 13 of the bottom tray 11 to raise it slightly off any horizontal surface on which it may rest. Such detents are not illustrated in the drawings but are contemplated as being within the scope of our invention.

The foregoing description is merely intended to illustrate an embodiment of the invention. The component parts have been shown and described. They each may have substitutes which may perform a substantially similar function; such substitutes may be known as proper substitutes for the said components and may have actually been known or invented before the present invention.

We claim:

1. A pair of cooperative, stacked, utensil trays comprising:

(a) a bottom tray,

(b) upstanding partitions in the bottom tray,
(c) a rear wall and a pair of opposed side walls on the bottom tray extending above the top edges of the partitions,
(d) a front wall on the bottom tray dimensioned vertically approximately as high as the said partitions,
(e) a top tray slidably mounted on the top edges of the partitions in the bottom tray, and
(f) a rear wall and a pair of opposed side walls on the top tray, the top edges of the rear wall and the top edges of the side walls adjacent to the rear wall of the top tray dimensioned vertically slightly higher than the top edges of contiguous portions of the rear and side walls of the bottom tray when the rear wall of the bottom tray and the rear wall of the top tray are engaged.

2. A pair of cooperative, stacked, utensil trays comprising:
(a) the structure in accordance with claim **1** and,
(b) a generally arcuate top edge portion on each of the side walls of each of the trays extending rearwardly and upwardly from the respective front walls thereof.

3. A pair of cooperative, stacked, utensil trays comprising:
(a) the structure in accordance with claim **1**, and
(b) a generally arcuate top edge portion on each of the side walls of each of the trays extending rearwardly and upwardly from the respective front walls thereof, and
(c) the radius of curvature of the said arcuate top edge portions of the top tray is greater than the said arcuate top edge portions of the bottom tray, and
(d) a radially, outwardly extending peripheral flange running continuously along the top edge of the front, rear and side walls of each of the said trays.

4. A pair of cooperative, stacked, utensil trays comprising:
(a) the structure in accordance with claim **1** in which,
(b) the top tray is dimensioned shorter from front to rear than the bottom tray.

5. A pair of cooperative, stacked, utensil trays comprising:
(a) the structure in accordance with claim **1** in which,
(b) the distance between the interior surfaces of the side walls of the bottom tray is slightly greater than the distance between the external surfaces of the side walls of the top tray.

6. A pair of cooperative, stacked, utensil trays comprising:
(a) a bottom tray,
(b) a bottom on the bottom tray,
(c) upstanding, opposed spaced-apart front and rear walls and upstanding, opposed, spaced-apart side walls on the bottom of the bottom tray,
(d) a plurality of upstanding partitions in the bottom tray at least one of which extends transversely between and generally perpendicular to the side walls thereof and intermediate the front and rear walls, the top edges of the partitions lying in a plane generally parallel to the bottom of the bottom tray,
(e) the rear wall and the side walls of the bottom tray adjacent to the said rear wall dimensioned vertically higher than the said partitions,
(f) the front wall of the bottom tray dimensioned vertically no higher than the top edge of the said partitions,
(g) a top tray dimensioned shorter from front to rear than the bottom tray slidably mounted on the partitions in the bottom tray,
(h) a bottom on the top tray,
(i) upstanding, opposed, spaced-apart front and rear walls and upstanding opposed, spaced-apart side walls on the bottom of the top tray,
(j) the top edges of the rear wall and the side walls adjacent thereto of the top tray dimensioned vertically, slightly higher then the top edge of contiguous portions of the rear and side walls respectively of the bottom tray, and
(k) at least one detent depending from the bottom of the top tray and lying immediately behind the transverse partition in the bottom tray when the respective rear walls of the trays are engaged.

7. A pair of cooperative, stacked, utensil trays comprising:
(a) the structure in accordance with claim **6**, and
(b) a generally arcuate top edge portion on each of the side walls of each of the trays extending rearwardly and upwardly from the respective front walls thereof.

8. A pair of cooperative, stacked, utensil trays comprising:
(a) the structure in accordance with claim **6**, and
(b) a generally arcuate top edge portion on each of the side walls of each of the trays extending rearwardly and upwardly from the respective front walls thereof, and
(c) the radius of curvature of the said arcuate top edge portions of the top tray being greater than the said arcuate top edge portion of the bottom tray, and
(d) a radially, outwardly extending, continuous peripheral flange extending along the top edge of the front, rear and side walls of each of the respective trays.

9. A pair of cooperative, stacked, utensil trays comprising:
(a) the structure in accordance with claim **6** in which,
(b) a portion of the bottom and front walls of the top tray extend forwardly beyond the transverse partition in the bottom tray.

10. A pair of cooperative, stacked, utensil trays comprising:
(a) a structure in accordance with claim **6**, and
(b) at least one detent depending from the bottom of the top tray adjacent to the rear wall thereof.

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U.S. Cl. X.R.

211—126; 220—97