

[54] **DISPLAY TRAY**  
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**FOREIGN PATENTS OR APPLICATIONS**

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[52] U.S. Cl..... **206/72, 206/5, 206/45.14, 211/13, 220/23.4**

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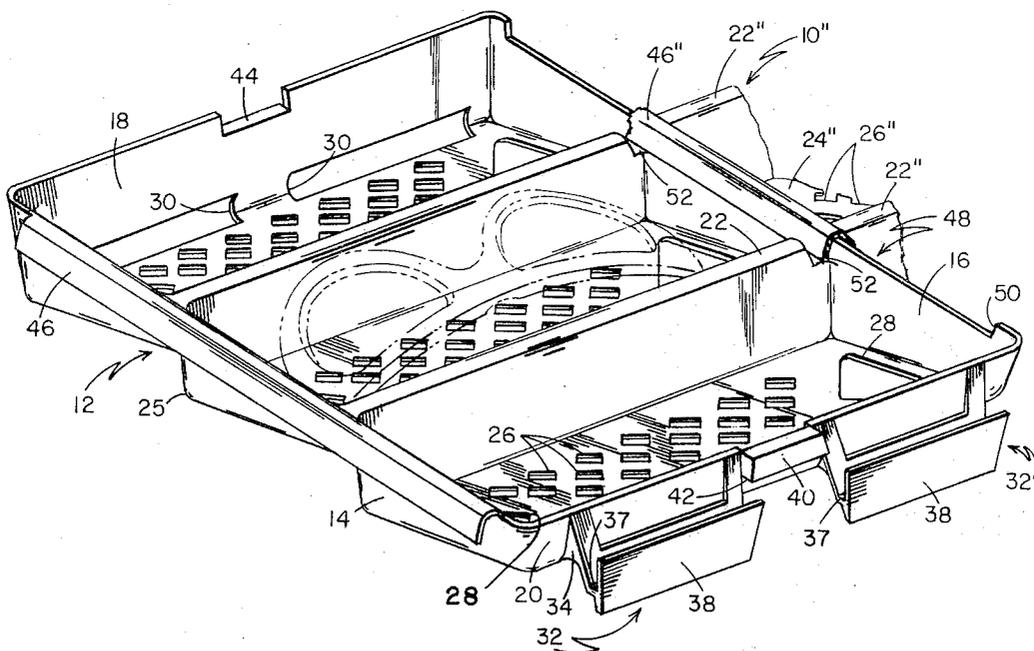
[57] **ABSTRACT**

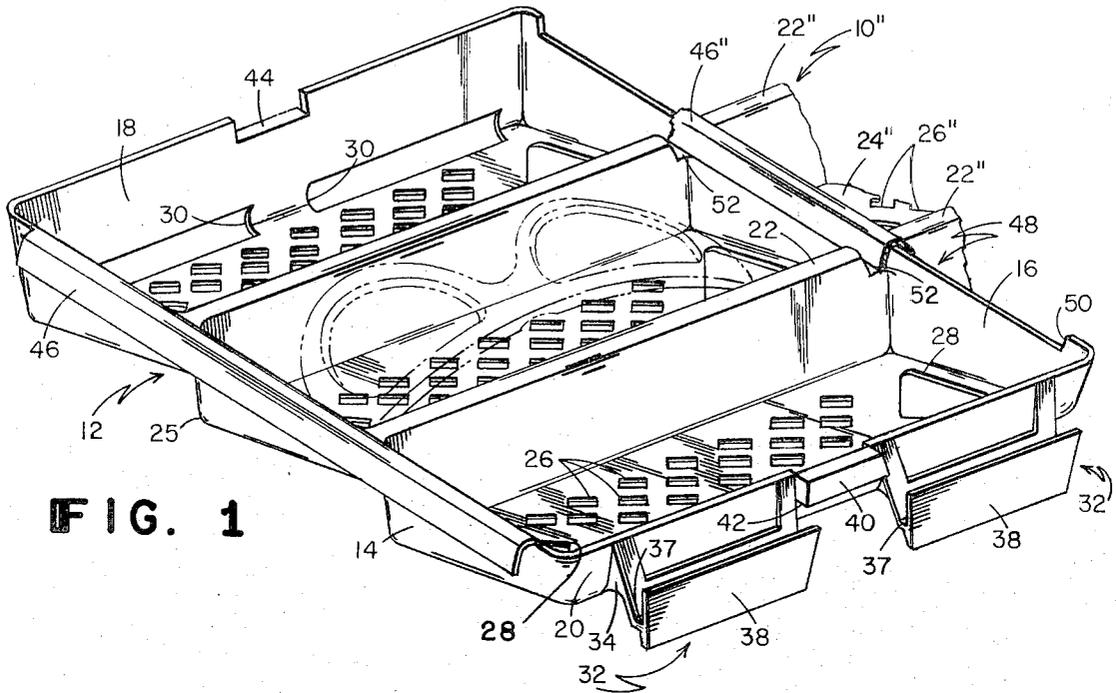
A display tray of the type for display goods on a counter having integral means for selectively joining together a plurality of similar trays in end-to-end and side-to-side relationship.

[56] **References Cited**  
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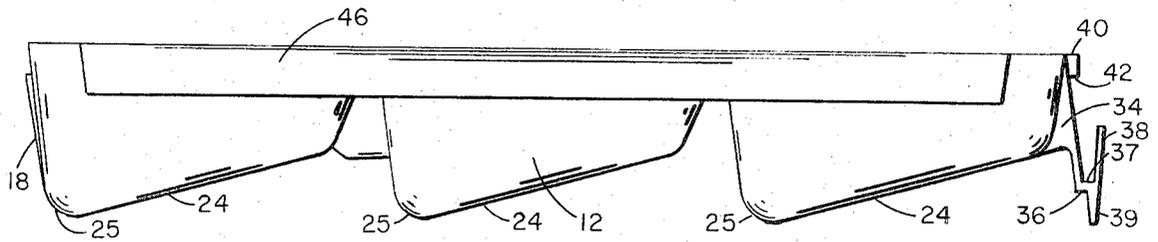
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**8 Claims, 5 Drawing Figures**

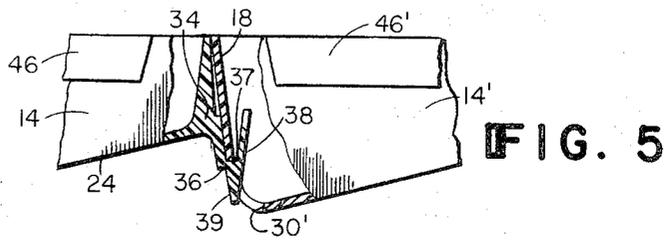
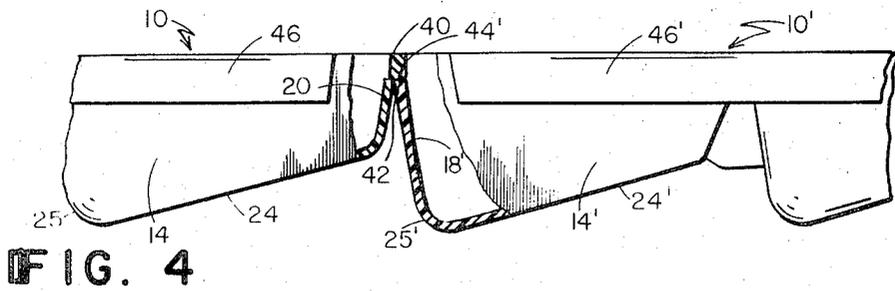
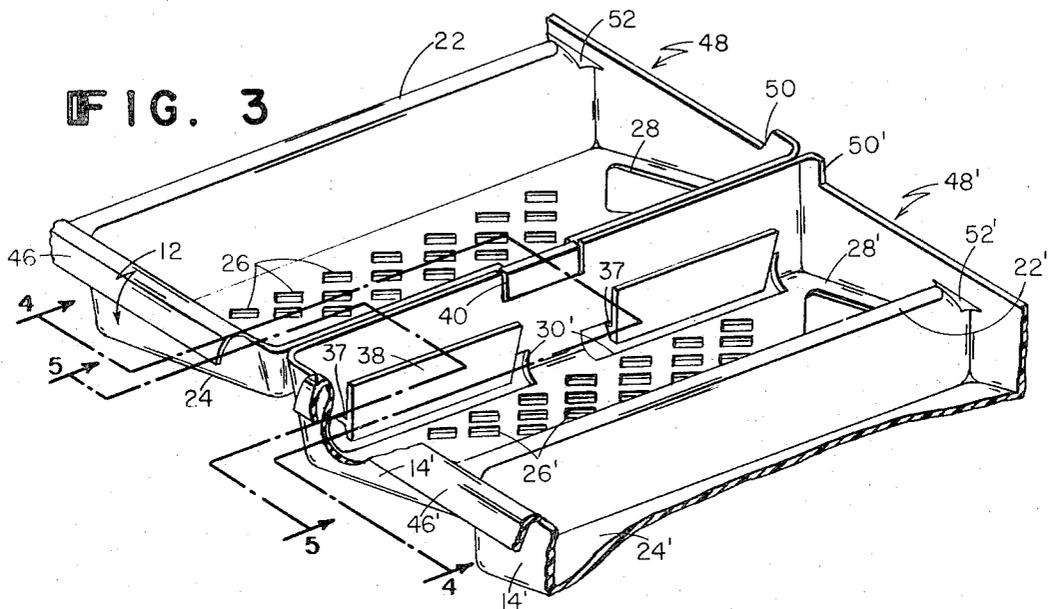




**FIG. 1**



**FIG. 2**



## DISPLAY TRAY

## BACKGROUND AND OBJECTS OF INVENTION

This invention is directed toward display trays of the type utilized to display goods on a counter. The trays are generally rectangular in shape and of a size to display a quantity of goods in an attractive manner. One type of goods to which this tray is particularly adaptable is sunglasses and a tray displaying three pairs of sunglasses will be disclosed as a preferred embodiment of the invention.

In order to provide a large selection of goods such as sunglasses a plurality of these trays are generally provided in end-to-end and side-to-side relationship on a counter. In such an arrangement it has been found advantageous that the trays be joined together so that they will form a unit thus preventing unwanted movement of single trays as the goods are handled by customers. This will prevent such trays from being inadvertently knocked off counters or becoming misarranged.

It is thus an object of this invention to provide a display tray having means to selectively join together a plurality of similar trays in end-to-end and side-to-side relationship.

It is a further object of the invention to provide such joining means which are easy to engage and disengage manually without use of tools.

It is still another object of the invention to provide such joining means which do not require separate parts but are integral with the tray which may be made as a single molded plastic unit.

## SUMMARY OF THE INVENTION

Pursuant to the above objects a display tray is provided which includes a bottom and upstanding side walls and end walls so that objects to be display are viewed from above. The means to join such a tray to a similar tray in end-to-end relationship include at least one opening in one end wall near the bottom portion thereof and at least one joining member which extends outwardly from the other end wall of the tray. When two of such trays are joined in end-to-end relation the locking member of one tray extends through the opening of the second tray. The joining member includes a gripping portion which engages the end wall portion bordering the opening. A lug is positioned on the end wall of the tray from which the joining members extends which includes a clamping surface which engages a portion of the end wall of the tray to be joined above the opening therein. The lug clamping surface is spaced apart from the gripping portion of the joining member a predetermined distance so that there is a substantially tight friction fit of the wall portion between the clamping surface and the gripping portion of the joining member when two of the trays are so joined.

To provide for the joining of two or more of the trays in side-to-side relationship one of the side walls of the tray has an outwardly and downwardly extending flange extending from the top portion thereof. The other side wall has a flange engaging recess therein whereby any two of such trays may be joined together in side-by-side relationship by slipping the flange of one tray over an adjacent tray in engagement with the recessed sidewall thereof.

Other features of the invention include members for partitioning the tray and adapting the tray bottom especially for displaying sunglasses.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a rear perspective view of a preferred embodiment of the display tray including a fragmentary section of a similar tray joined in side-by-side relationship therewith.

FIG. 2 is a side elevational view of the display tray of FIG. 1.

FIG. 3 is a perspective view of two of such trays having their end walls joined together.

FIG. 4 is a fragmentary sectional view taken along line 4—4 of FIG. 3.

FIG. 5 is a fragmentary sectional view taken along line 5—5 of FIG. 3.

## DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring more particularly to the drawings wherein like reference numerals designate like parts throughout the several views there is shown in FIG. 1 a display tray 10 which is preferably formed as a one piece molded plastic unit. The tray includes a bottom 12 having a pair of side walls 14 and 16 upstanding therefrom and a pair of end walls 18 and 20 also upstanding from the bottom and joined with the side walls at the tray corners. The goods displayed therein are viewed from the open top of the tray and they may be arranged in a manner particularly suited to the type of goods. Since the tray 10 is meant for displaying sunglasses the bottom portion has been divided into a plurality of compartments by means of a pair of upstanding partitions 22. To further accommodate the display of sunglasses the portions 24 of the tray bottom 12 as especially shown in FIG. 2 are slanted forwardly from the horizontal so that the sunglasses will be more visible to a customer standing in front of a tray supporting counter. The tray 10 is supported on the counter by means of corner portions 25 on the tray bottom. It is also a feature of the tray to provide a series of openings 26 in each of the tray bottom portions 24 both to provide an attractive net-like appearance and to further provide for the removal of dust from the tray bottom through the openings during periodic dustings of the tray. Larger triangular openings 28 are also included at both ends of each tray bottom portion 24 for the purpose of receiving temple members of sunglasses which may extend therethrough and be folded therebehind. It is foreseen that the display tray 10 could be supported in a vertical position on a wall or the like rather than in the horizontal position shown. The temple members folded behind portions 24 as suggested would then serve to hold the sunglasses in place in their individual compartments even when the tray is vertically oriented. A pair of sunglasses are shown in phantom in FIG. 1 placed in the tray as they appear to the viewer. The triangular shape of openings 28 allow them to accommodate sunglasses of different sizes in which the distance between temples may vary.

For the purpose of selectively joining two or more of the trays 10 together in end-to-end relationship to form a counter unit, for example, the end wall 18 is provided with a pair of openings 30 which are located in the vicinity of the bottom portion of the wall 18 where it merges with the tray bottom. A pair of joining members 32 are provided extending outwardly from the oppos-

ing end wall 20 which are structured for engagement with openings 30. Each of the joining members 32 includes a support portion 34 extending downwardly and outwardly from end wall 20, a short horizontal gripping portion 36, and an upwardly and outwardly extending guide portion 38. A small foot portion 39 extends downwardly from member 32 to support the back of the tray on a counter. FIGS. 3 and 4 of the drawing indicate how two of the trays 10 and 10' may be joined together in end-to-end relationship. The guide portions 38 of locking members 32 on end wall 20 first pass through the openings 30' in the end wall 18' of a similar tray. The trays are then moved to the position shown especially well in FIG. 4 where the portion of the end wall 18' bordering the top of the openings 30' rest against the upwardly facing surface 37 of the gripping portion 36 of each joining member. In order to forcefully hold the trays together there is further provided on end wall 20, between and above the locking members 32, a lug 40 extending outwardly therefrom. The lug 40 has a bottom clamping surface 42 which is positioned to engage a portion of wall 18' in a similar tray when two of the trays are joined. As shown in FIG. 1 the end wall 18 of each tray has a small recess 44 formed therein. When two trays are joined as illustrated in FIG. 4 the lug 40 is received in recess 44 downwardly facing clamping surface 42 engages a portion of the end wall 18' bordering the bottom of the recess. A section of the end wall 18 is thus in effect clamped between the surface 42 of the lug 40 and the gripping portions 36 of the pair of joining members 32, one of which is shown in FIG. 4. It thus can be seen by spacing these wall engaging elements a predetermined distance from each other it is possible to maintain a substantially tight friction fit of the wall section therebetween and thus maintain the two trays in end-to-end joined relationship. It is conceivable that a single centrally located opening 30 in the end wall 18 of one tray could be engaged by a single centrally located joining member 32 extending outwardly from end wall 20 of an adjacent tray for joining purposes, however the dual structure is much preferred. When two or more of said trays are joined in end-to-end relationship as described above, the joined trays form a substantially unitary structure which can be supported in a substantially vertical position as suggested or in any desired tilted position between the horizontal and vertical providing a great variety of possible display arrangements.

Structure is also provided on display tray 10 as shown in FIG. 1 for joining a plurality of such trays in side-to-side relationship. Thus there is provided a flange 46 which extends outwardly and downwardly from the top portion of side wall 14. On the opposing side wall 16 a recess 48 extending almost the entire length of the wall is bordered by two recess bordering portions 50. Partitions 22 are also recessed at their end portions there they join with wall 16. Thus it is seen as shown in FIG. 1 that two of such trays 10 and 10'' may be joined in side-to-side relationship by slipping the flange 46'' of one tray over an adjacent tray in engagement with the recesses sidewall 16 thereof. A small broken away section of a tray 10'' joined in side-to-side relationship with tray 10 is shown in FIG. 1. In joined position a horizontal surface 52 of partition 22 is in contact with the bottom of flange 46''. In this position the recess bordering portions 50 which are spaced apart a distance only slightly greater than the length of flange 46'' serve

as stop members to prevent excessive sliding movement of flange 46'' in recess 48.

The terms "upwardly" and "downwardly" as well as "bottom" and "top" as used in the description and the claims refer to the orientation of the various elements of the display trays when they are positioned as shown in the drawings.

Thus the disclosed display tray performs the objects of the invention in a most effective manner and in an easily and inexpensively manufactured form.

I claim:

1. A display tray comprising:

- a bottom,
- a pair of upstanding side walls extending upwardly from said bottom,
- a pair of end walls extending upwardly from said bottom;
- a first one of said end walls having at least one opening in the vicinity of a bottom portion thereof and a second one of said end walls having at least one joining member extending outwardly thereof and adapted to co-act with the opening in the first end wall portion of a similar tray whereby two of such trays may be joined together in end-to-end relationship, said joining member having a guiding portion which extends through said opening in said first end wall of a similar tray in joined position and an upwardly facing gripping portion which engages the wall portion bordering said opening;
- a lug extending outwardly of said second one of said end walls, said lug being positioned above said joining member and having a downwardly facing clamping surface opposing said gripping portion for engagement with a portion of the first end wall of a similar tray for joining purposes, said clamping surface of said lug being spaced apart a predetermined distance from the gripping portion of said joining member so that there is a substantially tight friction fit of the end wall portion between said clamping surface and said gripping portion of said joining member when two of such trays are joined together.

2. The display tray of claim 1 wherein said one of said end walls has two openings in the vicinity of the bottom portion thereof and said second one of said end walls has two joining members extending outwardly thereof whereby in joining two of such trays each locking member co-acts with one of said openings for engagement therewith.

3. The display tray of claim 1 wherein one of said side walls has an outwardly and downwardly extending flange extending from a top portion thereof and said other side wall has a flange engaging recess therein whereby two of such trays may be joined together in side-by-side relationship by slipping said flange of one tray over an adjacent tray in engagement with said recessed side wall thereof.

4. The tray of claim 1 including at least one upstanding partition extending between said side walls providing a plurality of compartments in said tray bottom.

5. The display tray of claim 4 including two partitions extending between said side walls providing three compartments in said tray bottom.

6. The display tray of claim 4 wherein a portion of said tray bottom in each compartment is slanted to more visibly support the goods therein.

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7. The display tray of claim 6 wherein said portions of said tray bottom in each compartment have a plurality of small openings therein for easier dust removal through said openings.

8. The display tray of claim 7 wherein said portions of said tray bottom in each compartment have two rela-

tively larger openings therein positioned and adapted to receive a pair of sunglass temples which may be folded to hold said sunglasses in said compartments if the tray should be supported with said bottom portions in a substantially vertical position.

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