Sept. 5, 1961 H. I. SIDES 2,998,886

DISPLAY BIN AND SUPPORT THEREFOR

Filed July 20, 1959

Fig. 1

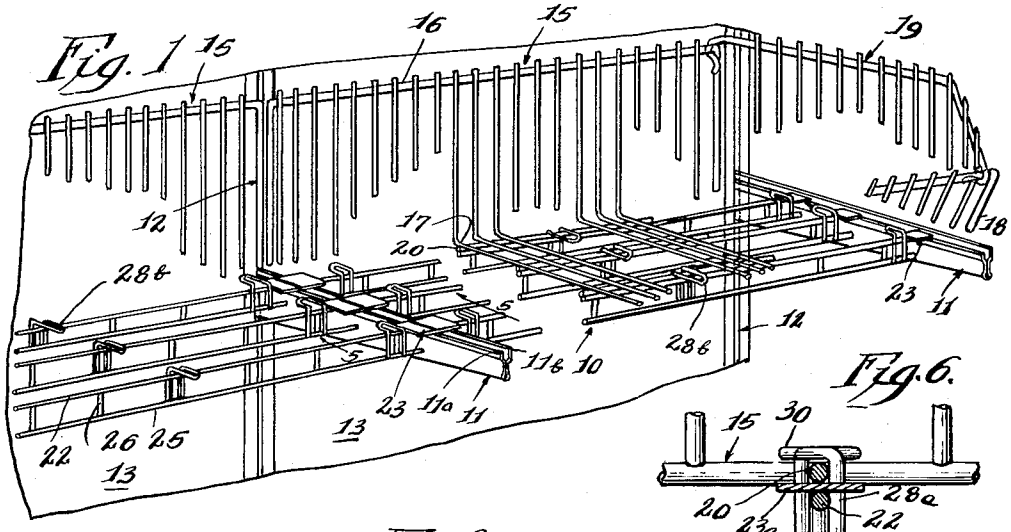


Fig. 6.

Fig. 2.

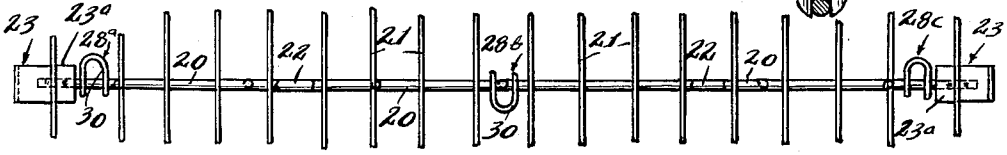


Fig. 3.

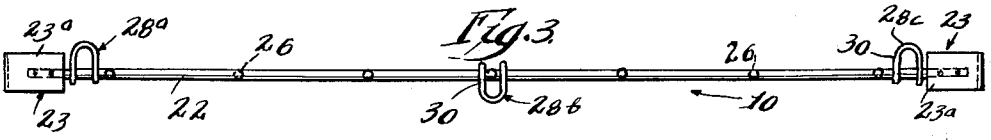


Fig. 4.

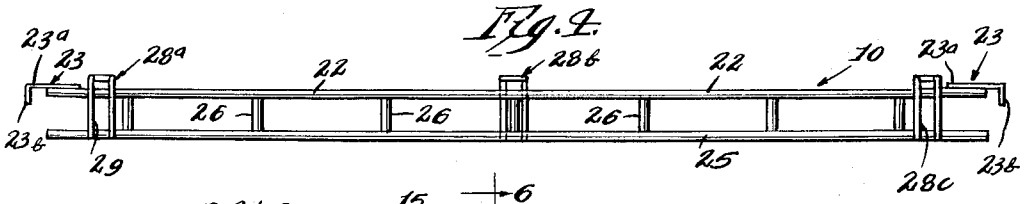
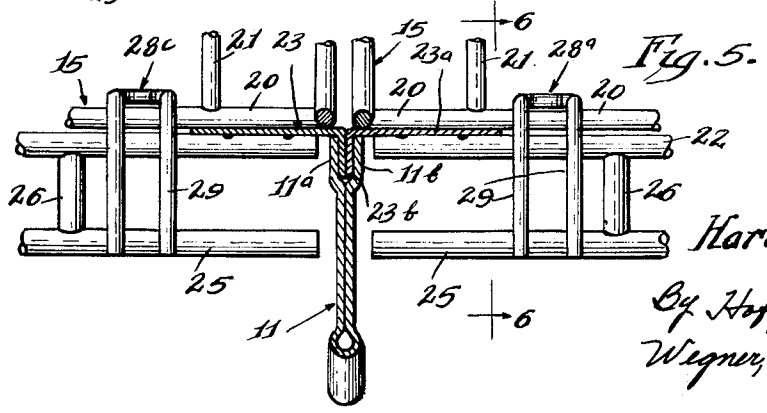


Fig. 5.



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DISPLAY BIN AND SUPPORT THEREFOR

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12 Claims. (Cl. 211—126)

This invention relates to improved means for supporting merchandise displays and in particular to a support for a display bin comprising a wire basket or container of the type shown in my Patent No. 2,868,391, of January 13, 1959, wherein the merchandise may be dumped into the container in random fashion or stacked neatly therein either of which is common practice in grocery stores and the like.

In large retail stores, particularly grocery stores and supermarkets, it is necessary to display the merchandise to the purchasing public. Normally, supports for such displays take the form of extensive solid and heavy shelves on which the merchandise for sale is displayed. Naturally, extensive shelves of this nature are expensive and furthermore tend to collect dirt and dust. Moreover, the solid shelving presents a visibility problem to the customer in that it tends to hide from view the merchandise on adjacent lower shelves.

The display bin support of this invention overcomes these problems in that it is much less expensive to produce and is light in weight. Moreover, a better visibility of merchandise is afforded while the support will easily hold as much weight as any shelf commonly in use and does not collect dust.

It is, therefore, a general object of the present invention to provide a new and improved support for a display bin or the like of the type described.

A more specific object is to provide a new and improved support of the character mentioned including a strong elongate wire or rod adapted to be supported horizontally for in turn supporting a display bin or the like and including hook means thereon adapted to be snapped on to the display bin by deflecting the rod, thereby to attach the rod to the bin.

Another object is to provide a display bin support of the type described including a series of at least three hooks spaced along the support rod and fixed thereon, alternate ones of the hooks facing laterally toward opposite sides of the support rod, whereby the first two hooks in the series are attachable to a rod or the like in the bottom of the display bin simply by manipulating the support rod and whereby the third hook in the series may be snapped onto the display basket rod by deflecting the support rod laterally.

A further object is to provide a display bin support of the type described including hook means at opposite ends of the support rod for in turn supporting the rod on horizontal outwardly extending shelf supports in a manner to prevent the rod from rolling on the shelf supports.

An additional object is to provide a display bin support of the character mentioned wherein the support rod is resiliently bendable laterally rather slightly to permit attachment of the rod to the display bin, but which is reinforced therebeneath to prevent deflection of the rod vertically under load.

It is also an object of the invention to provide a new and improved bin support of the type described in combination with a display bin or basket of the type described.

Other objects of the invention will become apparent from the following description of a preferred embodiment of the invention in connection with the accompanying drawings, in which:

FIG. 1 is a fragmentary perspective view of a typical display arrangement including suitable shelf supports, display bin supports of this invention positioned on the shelf supports, and including display containers (in part) attached to the display bin supports;

FIG. 2 is a fragmentary top plan view showing the attachment of one of the bin supports to a portion of a display bin or basket;

FIG. 3 is a top plan view of a bin support;

FIG. 4 is a front elevational view of a bin support;

FIG. 5 is an enlarged fragmentary sectional view taken at about the line 5—5 of FIG. 1; and

FIG. 6 is a fragmentary sectional view taken at about the line 6—6 of FIG. 5.

Referring now to the drawings in more detail, a display bin support generally designated 10 embodying the principles of the present invention is adapted for use with shelf supports as at 11. Normally, these shelf supports are suitably supported in horizontal outwardly extending positions on upright members 12 of partitions 13 which are either arranged against the walls (not shown) of the store or on "islands" used to divide the store into aisles. The shelf supports 11 as shown in FIG. 1 are normally arranged so that solid wooden or metal shelves (not shown) may be positioned thereon to support a merchandise display or to provide a support for merchandise containers such as baskets. The preferred form of shelf support 11 as illustrated herein is somewhat U-shaped in cross section and includes spaced parallel horizontal side members 11*a* and 11*b* with a space or channel therebetween.

The supports 10 comprise a means for holding display bins or baskets such as that illustrated at 15. These baskets form the subject matter of my aforementioned patent and are essentially wire baskets each having an upright rear wall as at 16, a bottom wall as at 17 and a partial upwardly and forwardly inclined front wall as at 18. The basket as described has no end walls, but is adapted to receive end members or partitions as at 19 which may be removably placed at opposite ends of the basket 15 or at other positions along the length of the basket. Alternatively, at adjacent ends of adjacent baskets the end members 19 may be omitted so as to provide extra length bins. The attachable and detachable partition members 19 enable the provision of a bin of substantially any desired length. As illustrated herein, the baskets 15 are approximately equal the length between the horizontal shelf supports 11 and approximately the length of the bin supports 10.

In the form of basket shown herein, there are three longitudinal rods 20 in the bottom wall of the basket which extend the length of the basket 15, which are spaced from each other in a front to rear direction, and which are larger in diameter than the transverse wires 21 welded thereon. The rods 20 form a part of the framework for the basket 15 and provide a means to which the bin supports 10 are attachable, as will appear presently.

Referring now particularly to FIGS. 3 and 4, each bin support comprises a support rod 22 of sufficient length to almost span the distance between shelf supports 11. The rod 22 is preferably of metal wire or rod stock, substantially circular in cross section and is quite strong and practically rigid but as will appear may be deflected or bent laterally sufficiently to enable attachment of the rod to the bottom of the basket 15.

In order to enable attachment of the rod 22 at opposite ends to the shelf supports 11 in a manner to prevent the rods from rolling on the supports 11, opposite ends of the rod 22 have hook members 23 welded thereon. Each of the hook members comprises a substantially flat metal piece of inverted L-shape having a horizontal leg 23*a* welded to the top of rod 22 and a downwardly extending leg 23*b* spaced from the end of rod 22 and receivable in

the channel in shelf support **11** between the portions **11***a* and **11***b* as seen best in FIG. 5. This construction enables ready attachment of the bin supports to the shelf supports and due to the flat hooks **23** to support rods **22** are prevented from rolling along the shelf support.

The support rod **22** is reinforced to prevent bending in a vertical direction by means of a brace structure including a lower parallel rod **25** about the same length as the rod **22**, and upright brace members **26** having opposite ends welded respectively to the bottom and top surfaces of the upper and lower rods. This provides a bin support which is substantially rigid in a vertical direction to prevent deflection under load, but at the same time leaves the rod **22**, as well as the rod **25** resiliently bendable slightly in a lateral direction to enable attachment of the supports to the baskets.

The bin supports **10** are provided with hook means for attaching the supports to the heavy longitudinal rods **20** in the bottom of the basket **15**. In the preferred embodiment illustrated, the hooks comprise a series of three, designated **28***a*, **28***b* and **28***c*. Each of the hooks as shown herein comprises an L-shaped member having a vertical leg as at **29** and a laterally extending leg or hook portion as at **30**. The upright legs **29** are welded to the rods **22** and **25** at one side thereof and the hook portions **30** extend toward the opposite side of the rods to provide a mouth opening laterally to enable attachment of the hook over the basket rods **20**. Alternate hooks in the series are welded to opposite sides of the rods **22** and **25** and face respectively in opposite directions. Preferably, the hook **28***a* faces rearwardly, the hook **28***b* forwardly and the hook **28***c* rearwardly.

In operation, it will be understood that the construction described enables attachment of the first two hooks, such as **28***a* and **28***b* to one of the basket rods **20** simply by manipulation of the bin support. More particularly, as seen in FIG. 2, the first hook **28***a* is placed over basket rod **20**, after which the bin support may be pivoted about the hook **28***a* in a counterclockwise direction while held slightly below the basket bottom until such time as the hook **28***b* may be raised upwardly and moved forwardly, clockwise, to latch over the basket rod **20**. This manipulation requires no great force. After this, while the support rods **22**and **25** are substantially rigid they are deflectable by substantial manual pressure to enable snapping on the hook **28***c*. It will be understood that this can be done by bending the right end of the bin support (as viewed in FIG. 2) forwardly clockwise against the retention effect of the hooks **28***b* and **28***a* to a position where the hook **28***c* can snap upwardly and backwardly on rod **20** to the position shown.

The bin support of the present invention, in combination with the wire basket as described provides a construction which collects substantially no dust and dirt as compared to solid wood or metal shelving and bins, and which enables almost unlimited visibility in all directions for the customer. The baskets are removable from the bin supports, and the bin supports are removable from the shelf supports so that an unusual degree of flexibility and freedom of utility is afforded. The bin support is substantially rigid against vertical deflection, prevents rolling of the support rod on the shelf supports and prevents movement of the basket on the bin supports.

Having described my invention as relating to the embodiment shown in the accompanying drawings, it is my intention that the invention be not limited by any of the details of description unless otherwise specified but rather be construed broadly within its spirit and scope as set out in the accompanying claims.

I claim:

1. A display bin support, comprising, an elongate rod adapted to be supported horizontally on spaced support members, and a series of hooks fixedly attached to the rod for attaching the rod to a display bin, said series including at least three hooks longitudinally spaced along the rod each having a mouth opening laterally toward one side of the rod, with alternate hook mouths facing in opposite directions.

2. A display bin support, comprising, an elongate rod adapted to be supported at opposite ends thereof on spaced horizontal support members, and a series of hooks fixedly attached to the rod for attaching the rod to a display bin bar parallel thereover, said series including at least three hooks longitudinally spaced along the rod and projecting upwardly thereon, each hook having a mouth opening laterally toward one side of the rod, with alternate hook mouths facing in opposite directions, said rod being substantially rigid but resiliently deflectable laterally at least slightly whereby the first and second oppositely facing hooks in the series may be attached to said bar by manipulating the rod, and the third hook in the series may be snapped on the bar by bending the rod laterally.

3. A display bin support as defined in claim 2, wherein the hooks are spaced longitudinally along the rod one adjacent each end of the rod and one near the middle of the rod.

4. A display bin support as defined in claim 2, including means attached to the underside of the rod for bracing the rod against deflection vertically under load.

5. A display bin support as defined in claim 4, wherein said bracing means comprises a parallel brace rod spaced beneath the support rod, and spaced upright brace members having opposite ends attached to the rods.

6. A display bin support as defined in claim 2, wherein the hooks each comprise an inverted L-shaped member having a vertical leg welded on the side of the support rod opposite the side toward which the hook mouth opens, and a horizontal leg extending laterally across the rod in spaced relation thereto.

7. A display bin support as defined in claim 2, including hooks at opposite ends of the rod respectively, each downwardly facing and engageable over an outwardly extending horizontal shelf support member thereby to support the rod.

8. A display bin support as defined in claim 7, wherein the last recited hooks each comprise, a horizontally disposed flat portion at the rod and adapted to rest on a support member to prevent the rod from rolling and a downwardly extending hook portion to prevent longitudinal movement of the rod relative to a support member.

9. A display bin support as defined in claim 7, wherein the last recited hooks each comprise, a flat inverted L-shaped piece having a horizontal leg welded on the top of the adjacent rod end and a downwardly extending leg spaced from the adjacent rod end.

10. A display bin support, comprising, an elongate rod for supporting a display bin or the like, and hooks respectively at opposite ends of the rod for supporting the rod in a horizontal position on spaced horizontal shelf supports or the like, each hook comprising a horizontally disposed flat portion at the rod end adapted to rest on a shelf support to prevent the rod from rolling and a downwardly extending hook portion to prevent longitudinal movement of the rod on the shelf support.

11. The combination of a display bin and a support therefor: said bin comprising, a wire basket having at least one longitudinal rod at the bottom of the basket and spaced transverse wires welded thereon; said support comprising, an elongate laterally bendable rod adapted to be supported horizontally on spaced support members and a series of hooks fixed on the support rod and releasably hooked on the basket rod thereby releasably attaching the support to the basket beneath the basket, said series including at least three hooks spaced along the support rod each having a mouth opening laterally toward one side of the support rod, with alternate hook mouths facing in opposite directions.

12. A display island, comprising a plurality of spaced parallel uprights, a plurality of spaced parallel shelf sup-

ports on the uprights each comprising, a horizontal arm having a generally U-shaped cross section including spaced parallel side portions with an upwardly opening channel therebetween, a plurality of bin supports mounted on the shelf supports each comprising an elongate rod spanning the space between adjacent shelf supports and including flat hooks at opposite ends of the rod each hook including a horizontal leg resting on one side portion of a shelf support and a downwardly extending leg in the adjacent shelf support channel, a plurality of wire display baskets

positioned end to end on the bin supports, and a plurality of additional hooks on each rod releasably attaching the baskets to the rod.

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