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H. C. ROBINSON ET AL

2,338,968

DISPLAY STAND

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Fig. 1.

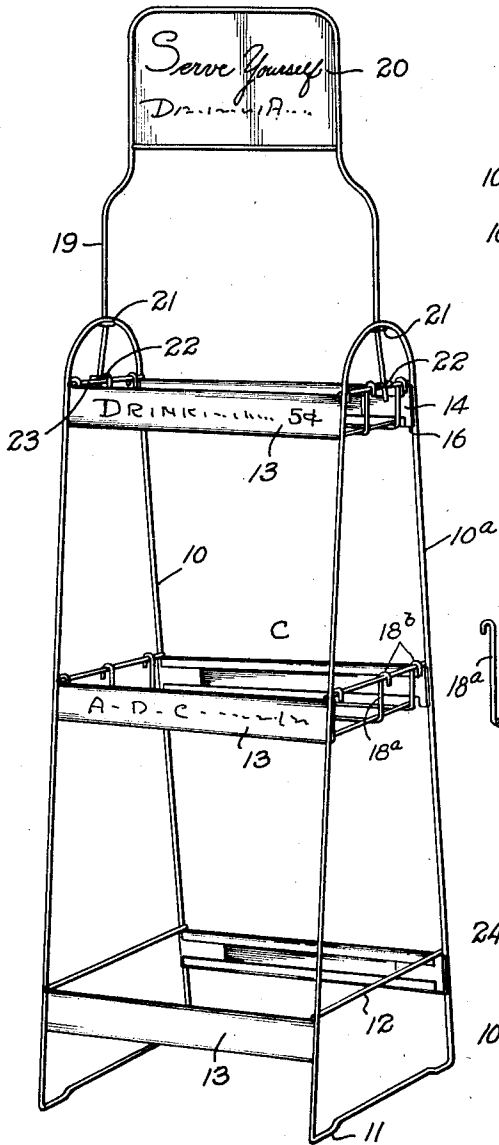


Fig. 2.

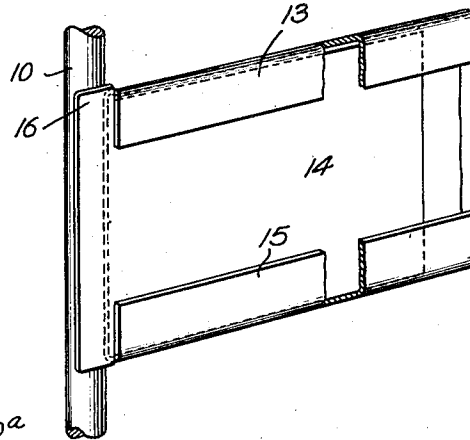


Fig. 3.

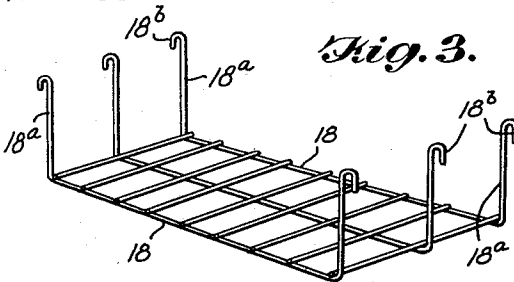


Fig. 4.

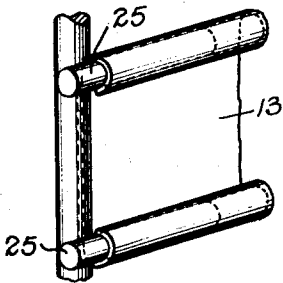
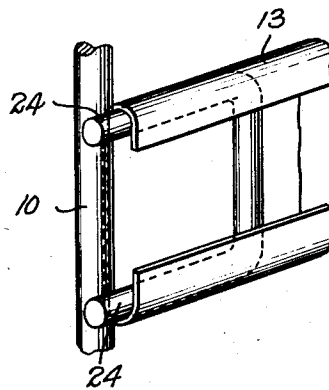


Fig. 5.

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# UNITED STATES PATENT OFFICE

2,338,968

## DISPLAY STAND

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Application August 1, 1940, Serial No. 349,205

9 Claims. (Cl. 211—128)

This invention relates to stands or racks for supporting and displaying merchandise and the like and is particularly concerned with stands or racks fabricated from wire or rod stock and which involve problems in their manufacture not present in stands or racks fabricated from wood, angle iron shapes, and the like.

Display stands of the type with which the present invention is concerned are required by the trade in varying sizes and capacities to support relatively large bottles and other merchandise which must be displayed in an attractive manner, and the racks should be capable of supporting relatively heavy loads without becoming rickety and giving way under the weight, and at the same time they should be of the knock-down type or collapsible to reduce shipping costs and promote convenience in storage.

An object of the present invention is to provide a rack of the type specified which will fulfill the foregoing requirements and which at the same time is attractive in appearance and may be assembled and taken apart easily and quickly without requiring the use of tools.

Another object of the invention is to provide a rack of the wire rod type which may be readily taken apart and nested for shipment and easily and quickly set up at the point of use without requiring the use of bolts, screws, clamps and the like and which may be made in a wide range of sizes and of varying capacities, the construction being such that strength and rigidity is always commensurate with size and capacity.

The foregoing and other objects and advantages will become apparent in view of the following description taken in conjunction with the drawing, wherein:

Fig. 1 is a view in perspective of a display stand constructed in accordance with the features of the present invention, the rack being assembled and set up for use;

Fig. 2 is an enlarged fragmentary detail view, partly broken away, of the slide and tongue arrangement forming part of the cross connecting framework;

Fig. 3 is a detail view in perspective of one of the merchandise-supporting trays or baskets; and

Figs. 4 and 5 are detail views of modified forms of slide and tongue structures.

Referring to the drawing in detail, the rack comprises a pair of side frames or uprights 10 and 10a, each of which is preferably formed of a single piece of wire or rod stock of substan-

tially overall inverted U-shaped contour, providing front and rear legs, with the bottom of the frame bent upwardly between the legs to provide feet 11. At spaced intervals the front and rear legs of the side frames or uprights are connected by reinforcing rods 12, the number of such rods used depending upon the height and capacity of the stand.

The side frames are detachably cross-connected by means of frame members 13, which are preferably in the form of sheet metal panels to render the stand more attractive and to provide space for advertising and descriptive matter.

Fig. 2 illustrates the manner in which the side frames are detachably cross-connected. A tongue 14 in the form of a piece of sheet metal, has its outer edge welded to the side frame. The panel or cross member 13, also preferably formed of sheet metal, has its opposite edges bent to provide slideways 15 which frictionally engage the tongues. Preferably, but not necessarily, the welded end of the sheet steel tongue is extended as at 16 to provide a stop and ensure a more firm attachment to the side frame.

The merchandise is supported by one or more trays or baskets 17, note Fig. 3, the baskets preferably being made of wire or rod stock and include a series of laterally extending cross members 18 formed with upwardly projecting hangers 18a, terminating in hooks 18b. In this manner the baskets may be detachably hung on the rods 12 and coact with the cross frame members 13 to provide a locking and bracing effect for the rack assembly.

The top of the stand or rack may be provided with a frame member 19 which in the present instance is shaped to support a sign 20 and provide a guard for the edges of the sign. The free ends or legs of the frame member 19 are detachably connected to the side frames 10 and 10a by means of eyes 21 and 22, the eyes 21 being located on the top of the side uprights and the eyes 22 being connected to cross members 23. The eyes 21 and 22 are preferably arranged in staggered relation vertically; that is, each eye 21 is projected inwardly of its coacting side upright and the eye 22 outwardly with respect to its coacting cross member. In this manner the legs may be inserted in the eyes under tension to thereby maintain the frame member 19 in proper position with respect to the stand or rack.

The manner in which the rack may be taken apart and assembled will be obvious. Assuming it is desired to take the rack down, it is only

necessary to remove the baskets or trays 17 and the sign holder 19, assuming the latter is used, whereupon the tongues 14 may be slid out of engagement with the cross members 13 simply by spreading the frames 10 and 10a. When the rack is disassembled, the parts may be folded and nested in compact form for shipment and storage. To reassemble the rack, it is only necessary to arrange the side frames in a position where the members 13 may be slid home on the tongues 14.

It will be noted that there are no bolts or other parts which require the use of tools, the tongue and slide arrangement together with the baskets or trays 17 coacting to render the rack strong and rigid and capable of supporting a relatively large quantity of merchandise without danger of becoming rickety or collapsing under the load.

Figs. 4 and 5 illustrate a modified type of tongue and slide assembly. In Fig. 4 the tongue, indicated at 24, is made up of a U-shaped piece of wire or rod stock with its free ends welded to the side frame. This type of tongue may be desired due to the fact that it is capable of being manufactured from stock of the same shape as the remaining portion of the stand. Also, the rounded closed end acts as a guide for the slides of the cross framing 13.

In Fig. 5 the tongue, indicated at 25, is made up of a pair of relatively short parallel pieces of wire or rod stock welded at one end to the side frame with the opposite ends projecting free for engagement with the cross panels 13.

If it should be desired to strengthen the type of tongue shown in Fig. 5, the form shown in Fig. 4 may be used except that the closed end of the tongue would be welded to the frame.

It will be understood that certain limited changes in construction and design may be adopted within the spirit and scope of the invention as defined by the appended claims.

What is claimed is:

1. A display stand of the knock-down type comprising side frame uprights, cross members connecting said side frame uprights, said cross members and side frame uprights being provided with inter-engaging portions constructed for detachable association one with the other, and one or more trays detachably connected to and suspended from said side frame members and coacting with said cross members to reinforce the assembly.

2. A display stand of the knock-down type comprising a pair of side frame uprights made of wire or rod stock shaped to define front and rear legs, reinforcing rods connecting said legs, cross members detachably connecting said uprights, and one or more trays having hook-shaped portions detachably engaging said leg reinforcing rods and cooperating with said cross members to lend rigidity to the stand.

3. A display stand of the knock-down type comprising side frame uprights formed of wire or rod stock shaped to define front and rear legs, reinforcing rods connecting said front and rear legs, said uprights each having secured thereto one or more laterally projecting tongues, and cross members connecting said uprights and shaped to provide slideways which frictionally engage said tongues.

4. A display stand of the wire rod knock-down type comprising side frame uprights each of which is bent in substantially inverted U-shaped

form to provide front and rear legs, reinforcing rods connecting said front and rear legs, each of said legs having secured thereto a laterally inwardly projecting tongue and said uprights being detachably connected transversely of the stand by means of sheet metal panels having their opposite edges channel-shaped to provide slideways which frictionally engage said tongues.

5. A display stand of the knock-down type comprising side frame uprights each of which is bent in substantially inverted U-shaped form to provide front and rear legs, reinforcing rods connecting said front and rear legs, each of said legs having secured thereto a laterally inwardly projecting tongue and said uprights being detachably connected transversely of the stand by means of sheet metal panels having their opposite edges channel-shaped to provide slideways which frictionally engage said tongues, and one or more wire trays having upwardly projecting hangers terminating in hooks which engage over said reinforcing rods and coact therewith to lend strength and rigidity to the rack.

6. A display stand of the knock-down type comprising side frame uprights each formed of wire or rod stock bent in substantially inverted U-shape, to form legs, cross members detachably connecting said uprights, each of said legs having secured thereto one or more laterally inwardly projecting tongues each of which is formed from a piece of sheet metal welded at one end to the leg and having its opposite end projecting free and slidingly and frictionally engaging the adjacent end of a cross member.

7. In a display rack, the combination of end members comprising uprights and connecting cross-pieces, certain of which constitute shelf supports, U-shaped dowel members disposed in opposed pairs and having their arms welded to said uprights, longitudinal members having in-turned flanges on their longitudinal edges telescopingly engaging said dowel members, and shelves provided with hooks engaging said shelf supports, said shelves constituting tie members for said end members.

8. In a display rack, the combination of end members comprising uprights, dowel members on said uprights disposed in opposed pairs, longitudinal members telescopingly engaging said dowel members and separable therefrom by relative endwise movement of the end and longitudinal members, intermediate cross members on said uprights constituting shelf supports, and shelves provided with hooks engaging said shelf support members, said shelves constituting tie members for said end members restraining the same from endwise separating movement relative to the longitudinal members and one another.

9. A display stand of the knock-down type comprising side frame uprights each formed of wire or rod stock bent in substantially inverted U-shaped form, cross members detachably connecting said uprights, said side frame uprights having secured thereto substantially oppositely disposed laterally inwardly projecting tongues formed from pieces of wire or rod stock secured as by welding at one end to one of said side frame uprights, the opposite ends of said tongues projecting free and detachably engaging the contiguous ends of said cross members.

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THOMAS F. CHALLIS.

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**Disclaimer**

2,338,968.—*Harry C. Robinson* and *Thomas F. Challis*, Chattanooga, Tenn. DISPLAY STAND. Patent dated Jan. 11, 1944. Disclaimer filed June 8, 1950, by the assignee, *American Manufacturing Company*.

Hereby enters this disclaimer to claims 1 to 5, inclusive, of said patent.  
[*Official Gazette July 4, 1950.*]