Feb. 18, 1964 F. F. BRUNETTE 3,121,496

DISPLAY RACKS

Filed May 7, 1962

FIG. 1.

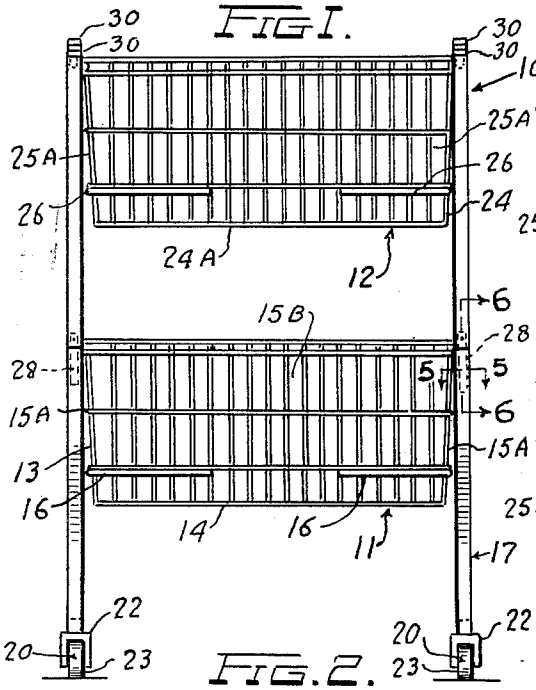


FIG. 2.

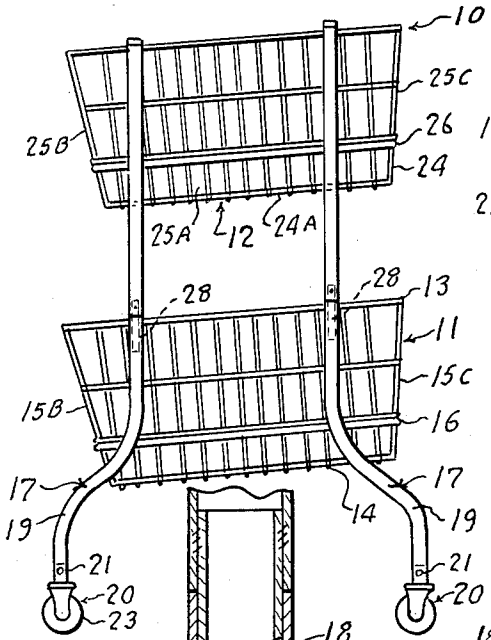


FIG. 6.

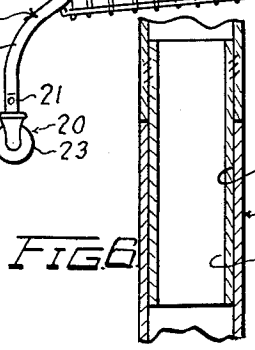


FIG. 5.

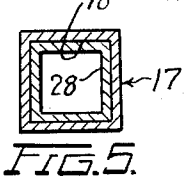


FIG. 4.

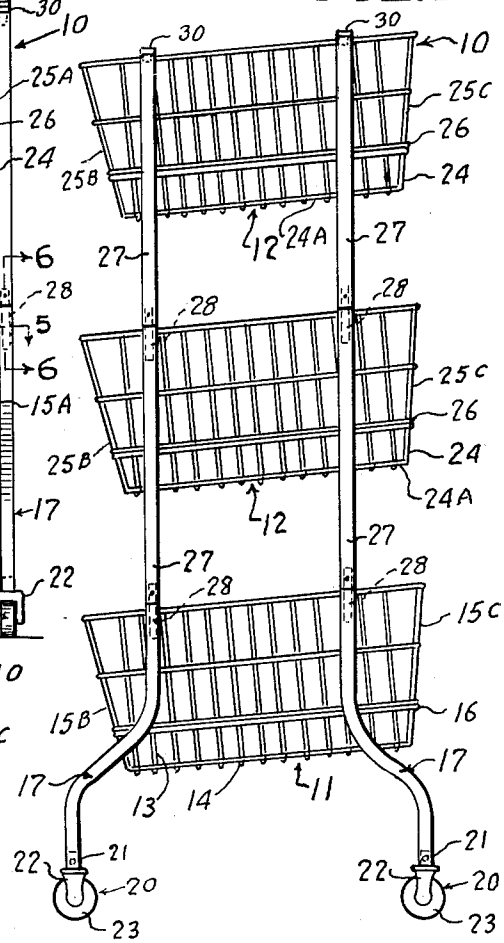
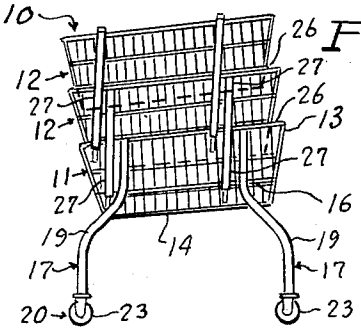


FIG. 3.



INVENTOR.
Fredrick F. Brunette
BY
Hauke & Hauke
ATTORNEYS

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DISPLAY RACKS

Fredrick F. Brunette, Farmington, Mich., assignor to Brilliant Products Incorporated, Farmington, Mich., a corporation of Michigan

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The present invention relates to a rack for displaying merchandise and more particularly to the type of rack commonly used in self-serve supermarkets and the like to display featured canned goods and other items.

The modern emphasis on self-service type of retail stores has created a need for a strong, easily stored, portable display rack in which canned goods and other featured items can be placed to be picked up by shoppers. Because of the limited number of helpers with mechanical ability usually employed in such establishments it is important that such a dump rack, as they are commonly called, be capable of being completely assembled and disassembled without the need of special skills or tools. Racks now being used are assembled with clamps and bolts and thus require a great deal of time and effort each time a new display is to be set up. Since the number of items to be displayed fluctuates from week to week, the number of racks needed will also vary and storage can be a problem unless the rack will knock down easily into a compact unit. Those used heretofore will not knock down without complete disassembly. Further, since canned goods are heavy such a rack must be quite strong.

It is an object of the present invention to produce a display rack which can be completely assembled and disassembled without special skills or tools by providing baskets each having tubular framework which is slidably carried in the tubular framework of the basket below.

It is another object of the present invention to produce a display rack which can be stored in a small space by providing means permitting each basket of the rack to be inserted into a nesting position in the basket below it when the rack is disassembled.

It is yet another object of the present invention to produce a display rack strong enough to hold large quantities of canned goods and other heavy items by providing a structure in which each basket is a part of the supporting structure of the entire rack.

It is still a further object of the present invention to produce a display rack which is adaptable for use in many different situations by providing means for increasing the number of baskets which can be used on such a rack without the need of screws, bolts or clamps.

Yet another object of the present invention is to increase the utility and life of a display rack by providing a construction which enables the rack to be assembled from a stock of interchangeable parts.

Yet other objects and advantages will readily occur to one skilled in the art to which the present invention pertains upon reference to the following drawings in which like reference characters refer to like parts throughout the several views and in which

FIG. 1 is a front elevational view of a preferred embodiment of the present invention illustrating a rack provided with two baskets.

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FIG. 2 is a side elevational view of the rack shown in FIG. 1.

FIG. 3 is a side elevational view of the rack illustrated in FIG. 4 but showing the rack in its knocked down form.

FIG. 4 is a side elevational view of the rack shown in FIG. 1 but illustrating such a rack when a third basket has been added.

FIG. 5 is a lateral cross sectional view taken substantantially at line 5—5 of FIG. 1, and

FIG. 6 is a fragmentary cross sectional view of structure taken substantially at line 6—6 of FIG. 1.

Now referring to the drawings for a more detailed description of the present invention, reference character 10 denotes a dump display rack comprising in general a bottom basket unit 11 and any desired number of top basket units 12. FIGS. 1 and 2 illustrate a rack 10 utilizing one top basket unit 12 and FIGS. 3 and 4 illustrate such a rack 10 when two top basket units 12 are used.

The bottom basket unit 11 preferably comprises a wire basket 13 having a grilled bottom portion 14 and grilled side walls 15A and front and back walls 15B and 15C respectively extending in planes which slope slightly outwardly from the bottom portion 14. A heavy wire support 16 is secured to the basket 13 spaced from the walls 15A in a plane substantially parallel with the plane containing the bottom portion 14. Tubular frame members 17 are secured to the wire support 16 in such a way as to tilt the forward portion of the basket 13 slightly downwardly from a plane normal to the frame members 17 as can best be seen in FIG. 2.

The tubular frame members 17 are carried on the support 16 in a substantially upright position and are each provided with a longitudinally extending hollow portion 18. Each frame member 17 has a substantially S curved bent portion 19 and is provided with a wheel assembly 20 carried in the recessed portion 18 by any convenient means such as screws 21. The curved portion 19 produces a broad base of support for the rack 10.

The wheel assembly 20 preferably comprises a fork member 22 swivelingly carried in the tubular frame member 17 and rotatably carrying a wheel 23.

The top basket units 12 as can best be seen in FIGS. 2 and 4 are each exactly alike and preferably comprise a basket member 24 having a bottom portion 24A, side walls 25A, a front wall 25B, a back wall 25C, and a wire support 26 substantially similar to baskets 13 and support 16. Straight tubular frame members 27 are secured to the side walls 25A and the supports 26 in a parallel relationship and are positioned to tilt the front portion of the basket 23 slightly downwardly so that the bottom portions 24 are each in planes substantially parallel to the plane containing the bottom portion 14.

The tubular frame members 27 are each provided with a tubular end member 28 of reduced cross section and which is dimensioned to slide into the longitudinal hollow portion 18 of a corresponding, tubular frame member 17 of the bottom basket unit 11 or if more than one top basket unit is used into a longitudinally extending hollow portion 29 provided in the frame members 27. End caps 30 are provided for insertion in the hollow portion 29 of the uppermost top basket unit 12.

It is not intended that the present invention be limited to the use of baskets since it is apparent that other types

of shelves or containers could be used equally as satisfactorily.

It is also apparent that the present invention provides a display rack which can be easily assembled and disassembled without requiring special tools or skills. Further the number of baskets carried on the rack can be varied by beginning with the bottom unit 11 and including as many top baskets unit 12 as is desired. When the rack is to be disassembled for storage or shipping, this can be easily accomplished by beginning with the uppermost top unit 11 and removing each unit from the one below.

As can best be seen in FIG. 3 the basket units 11 and 12 are so constructed that when the rack is disassembled each basket unit will nest in the unit below it, thus minimizing space requirements for shipping and storage. This result is achieved by spacing the supports 26 from the sides of the baskets 13 and 23 and by constructing the baskets 13 and 23 with sidewalls which slope outwardly.

It is also apparent that the present invention produces a rack capable of withstanding the stresses caused by loading the baskets with heavy items such as canned goods. Each basket is a part of the support for the entire rack. Stresses are transmitted through basket units 11—12 to the four upright supports made up of the engaged tubular frame members of the units being used.

Although I have described but one embodiment of the present invention it is apparent that changes and modifications can be made without departing from the spirit of the invention or the scope of the appended claims.

I claim:

1. A display rack for supermarkets and the like comprising

(*a*) a bottom basket unit and a top basket unit,

(*b*) said basket units each being provided with a plurality of substantially upright elongated frame members,

(*c*) said frame members of said bottom basket unit being in axial alignment respectively with corresponding frame members of said top basket unit,

(*d*) each of said frame members of said top basket unit being provided with an end portion of reduced cross-section,

(*e*) each of said frame members of said bottom basket unit being provided with a recessed end portion adapted to axially receive said reduced end portion of the corresponding frame member of said top basket unit,

(*f*) said bottom basket unit comprising a wire basket having a floor portion and sidewalls each respectively extending in a plane which slopes outwardly from said floor portion,

(*g*) said frame members of said bottom basket being secured to said sidewalls,

(*h*) said top basket unit comprising a wire basket having a floor portion and side walls each respectively extending in a plane which slopes outwardly from said floor portion,

(*i*) said frame members of said top basket unit being secured to said sidewalls with each sloped with respect to said floor portion of said basket and with the lower portions of said frame members being spaced from said sidewalls whereby when said basket units are disassembled said top basket unit will nest in said bottom basket.

2. A display rack for supermarkets and the like comprising

(*a*) a bottom basket unit and a top basket unit,

(*b*) said basket units each being provided with a plurality of substantially upright elongated frame members,

(*c*) said frame members of said bottom basket unit being in axial alignment respectively with corresponding frame members of said top basket unit,

(*d*) each of said frame members of said top basket unit being provided with an end portion of reduced cross section,

(*e*) each of said frame members of said bottom basket unit being provided with a recessed end portion adapted to axially receive said reduced end portion of the corresponding frame member of said top basket unit,

(*f*) each of said basket units comprising a wire basket having a floor portion and sidewalls,

(*g*) each of said frame members of said top basket unit being respectively secured to said sidewalls at a point intermediate said floor portion and the top of said basket,

(*h*) said frame members of said top basket unit each being laterally outwardly spaced from that portion of said respective sidewalls extending between said floor portion and said point at which said frame members are secured to said sidewalls whereby said top basket unit will partially nest into said bottom basket unit upon disassembly of the frame members of one of said basket units from the frame members of the other of said basket units.

3. The rack as defined in claim 2 and including a second top basket unit carried by said first mentioned top basket unit and substantially similar thereto.

4. A display rack for supermarkets and the like comprising

(*a*) a bottom basket unit and a top basket unit,

(*b*) said basket units each being provided with a plurality of substantially upright elongated frame members,

(*c*) said frame members of said bottom basket unit being in axial alignment respectively with corresponding frame members of said top basket unit,

(*d*) each of said frame members of said top basket unit being provided with an end portion of reduced cross section,

(*e*) each of said frame members of said bottom basket unit being provided with a recessed end portion adapted to axially receive said reduced end portion of the corresponding frame member of said top basket unit,

(*f*) said frame members of said top basket unit comprising a plurality of spaced substantially vertically extending strut members,

(*g*) each of said strut members being parallel with each of the other strut members of said top basket unit,

(*h*) said top basket unit further comprising a wire basket having a floor portion and sidewalls, and

(*i*) said strut members being sloped from the plane of said floor portion.

5. The rack as defined in claim 4 and including a second top basket unit removably carried by said first mentioned top basket unit.

6. A rack comprising

(*a*) a bottom container unit and a top container unit,

(*b*) said container units each being provided with a plurality of substantially vertically extending frame members,

(*c*) means removably securing said frame members of one of said container units to said frame members of said other container unit,

(*d*) said top container unit comprising a floor portion and outwardly sloped sidewalls,

(*e*) said bottom container unit being provided with an open top, said floor portion of said top container unit being of a smaller area than said top and said frame members of said top container unit being secured to said sidewalls in a position with the lower portions of said frame members being laterally outwardly spaced from said sidewalls, whereby upon disassembly said top container unit will nest in said bottom container unit.

7. The rack as defined in claim 1 and in which said

top basket unit is provided with means adapted for carrying a second top basket unit substantially similar to said first mentioned top basket unit.

8. The rack as defined in claim 2 and in which said top basket is provided with a wire member secured on the exterior of said sidewalls intermediate said floor portion and the top of the basket and substantially parallel to the plane of said floor portion, said frame members being secured to said wire member whereby said wire member spaces said frame member laterally from said floor portion.

9. The rack as defined in claim 2 and in which the

frame members of said bottom basket unit each comprises a substantially vertically extending strut member, said strut member having an S-shaped, outwardly bent portion below said floor portion, and a castor secured to the end of said strut member below said floor portion.

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