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Walser et al.

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[54] **DISPLAY RACK**

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[52] **U.S. Cl.** **211/49;** 211/181; 248/215

[51] **Int. Cl.**[2] **A47F 7/00**

[58] **Field of Search** ..... 211/49 R, 49 D, 49 S, 50, 211/55, 181, 88, 175, 86; 248/215, 302, 303

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[57] **ABSTRACT**

A rigid wire display rack for displaying items such as luncheon meats and the like in a minimum amount of space and in the most advantageous position for optimum visibility and access to the displayed items, including an elongate, rigid, inverted support channel for engagement with a complemental support structure and to which is affixed a downwardly and forwardly angularly inclined rigid wire rack for a container of items to be supported and displayed thereon, said channel engageable with said support structure to hold said wire frame in said downwardly and forwardly inclined position, and said frame cooperable with other racks positioned adjacent thereto in side-by-side relationship therewith to support a maximum number of items in a minimum amount of space.

6 Claims, 5 Drawing Figures

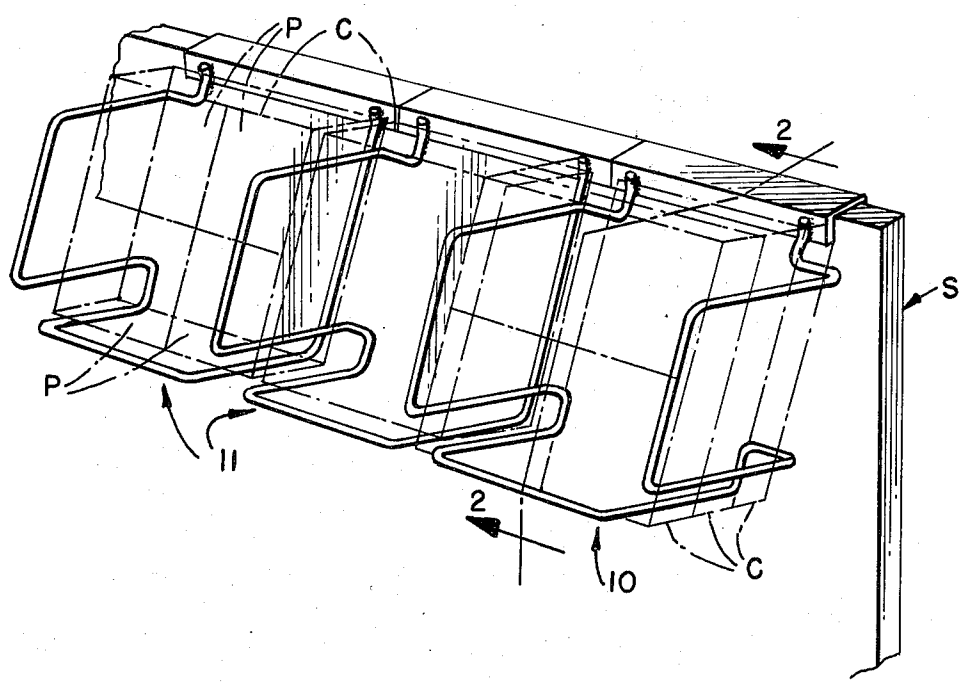


FIG. 1.

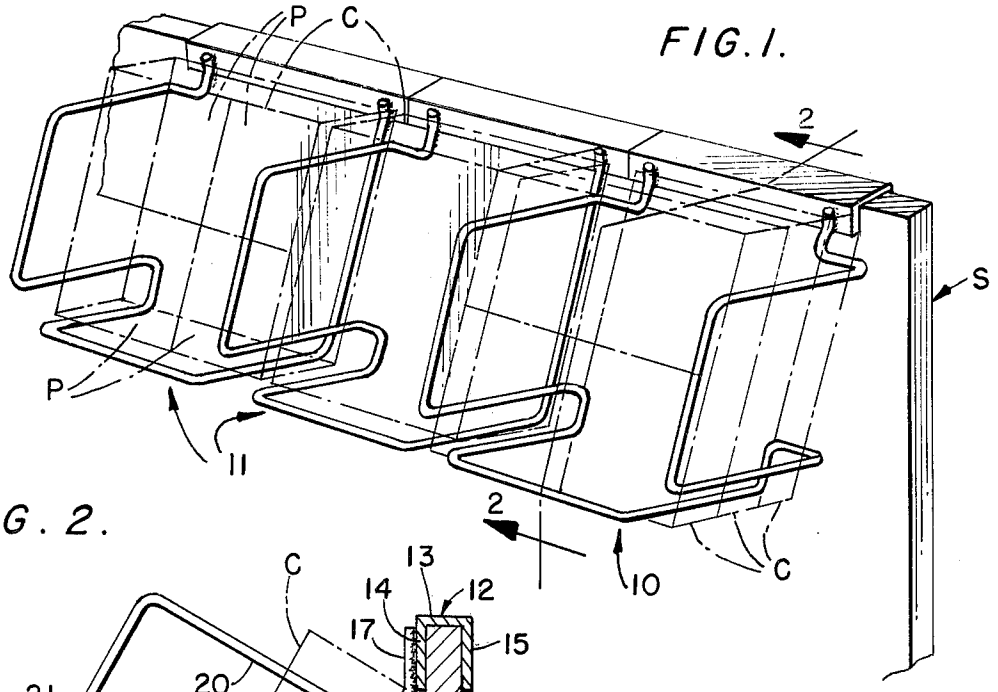


FIG. 2.

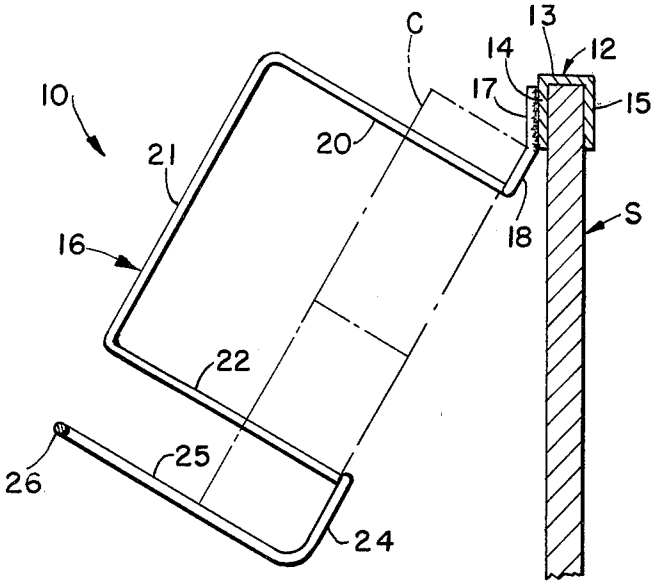


FIG. 3.

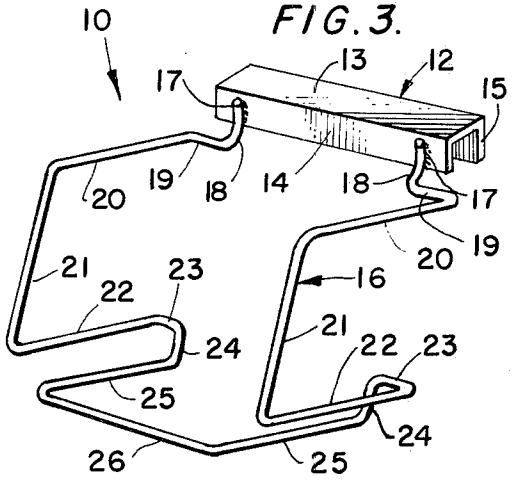


FIG. 5.

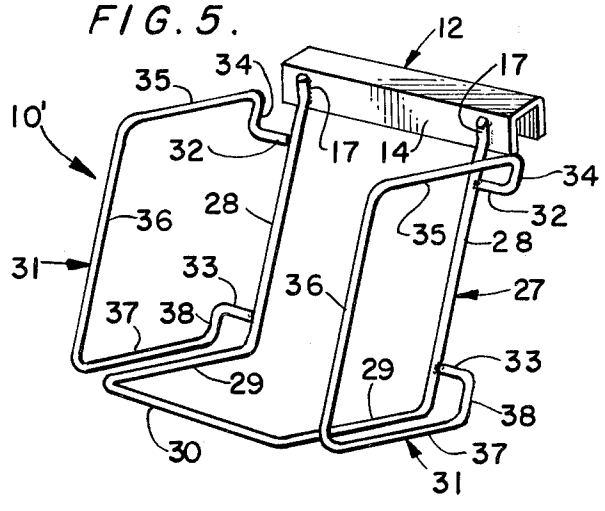
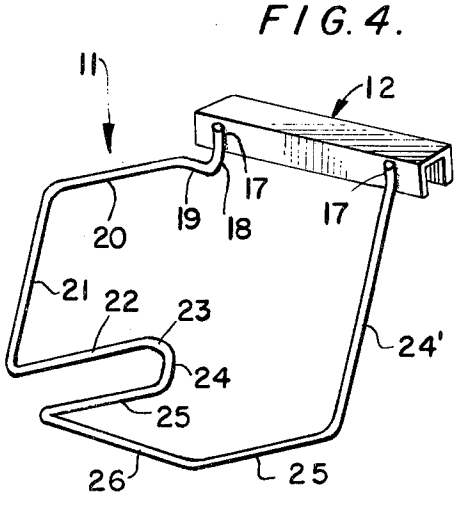


FIG. 4.



DISPLAY RACK

BACKGROUND OF THE INVENTION

This invention relates to display racks, and more particularly, relates to an open wire-type display rack for displaying luncheon meats and the like for sale to the general public. The display rack or frame of the invention is fixed to an inverted channel-shaped member engaged on a support and is supported from the support in a downwardly and forwardly inclined position so that a container of items, such as luncheon meats and the like supported on the rack, is positioned in an upwardly and forwardly facing orientation for optimum visibility and access to the items displayed. Further, the unique display rack of the present invention is exceptionally simple and economical in construction, and occupies a minimum amount of space, while at the same time it accommodates a maximum number of items to be displayed, and does not require separate fasteners or braces or the like in its operation.

In the prior art, many different types of display racks are known for displaying many types of articles, but such display racks are either relatively cumbersome and expensive in construction or require the use of separate fasteners or braces when in use. Additionally, such prior art display racks occupy a substantial amount of space when not in use.

With the display rack of the present invention the rack is supported at one end thereof from a support member with the items supported thereon disposed in an upwardly and forwardly facing position for optimum visibility and access to the displayed items, and the rack is simple and economical in construction and a plurality of the racks may be easily stored in a stacked relationship in a minimum amount of space.

OBJECTS OF THE INVENTION

It is an object of this invention to provide a display rack of open wire-type construction for displaying items, such as luncheon meats and the like, in an optimum position for visibility and access to the items.

Another object of the invention is to provide a display rack which is supported from one end thereof in an inclined position and which is exceptionally simple and economical in construction, and which requires very little space either when used or stored and which at the same time supports items in an optimum position for visibility and access to the items.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a plurality of display racks in accordance with the invention supported in operative position on a support structure and showing in phantom lines a plurality of containers of items supported thereon.

FIG. 2 is an enlarged fragmentary view in section taken along line 2—2 in FIG. 1.

FIG. 3 is a perspective view of a first form of display rack according to the invention.

FIG. 4 is a perspective view of a second form of display rack according to the invention.

FIG. 5 is a perspective view of a third form of display rack according to the invention.

DETAILED DESCRIPTION OF THE INVENTION

In the drawings, wherein like reference numerals indicate like parts throughout the several views, a plurality of display racks 10 and 11 are shown supported in operative position in FIGS. 1 and 2 on an upper edge of a partition or wall or other support structure S. As seen in these figures, a plurality of containers, indicated in phantom lines at C, are supported on the display racks with the containers disposed in an upwardly and forwardly facing position for optimum visibility of the items and easy access thereto. For example, the items may comprise luncheon meats or the like displayed for sale in a grocery store or the like. Each container C could contain, for example, four different packages P of different types of luncheon meats or the like. Thus, a consumer could easily view the different selections of items or packages P in the containers C supported on the display racks 10 and 11 and could select one or more of the packages as desired, and when a container C is emptied of its contents, it may simply be removed from the rack, thus exposing a subsequent container C.

As best seen in FIG. 3, the display rack 10 comprises an inverted, elongate, channel-shaped support or member 12 having a top wall 13 and front and back walls 14 and 15. A one-piece open wire rack or frame 16 has substantially vertically extending, straight, opposite end portions 17 welded or otherwise suitably secured to the front wall 14 of support channel 12 adjacent the opposite ends thereof. A relatively short forwardly and downwardly inclined portion 18 extends from the lower end of each of the end portions 17 and the portions 18 are bent laterally outwardly at their lower ends to define horizontal portions 19 extending outwardly generally parallel to the axis of the channel support 12, the portions 18 and 19 defining inturned, angularly shaped back supports for a container at the opposite, upper corners of the rack. The horizontal portions 19 are bent forwardly at their outer ends substantially in the planes of the opposite ends of the channel support 12 to define upper side support rails 20 extending substantially perpendicular to the plane of portions 18 and 19. The outer ends of the upper side support rails 20 are bent downwardly at right angles to define a pair of front side support rails 21 extending parallel to the axes of portions 18 and the lower ends of front support rails 21 are bent rearwardly in a direction parallel to upper side support rails 20 to define a piar of bottom side support rails 22 of substantially the same length as upper side support rails 20. The upper, lower and front side support rails 20, 21 and 22 define substantially U-shaped outwardly projecting container side supports in spaced parallel planes perpendicular to the axis of the support 12.

The inner or rearward ends of bottom side support rails 22 are bent inwardly toward one another at 23 parallel to portions 19, and then downwardly at 24 parallel to portions 18 to define inturned angular back supports at opposite, lower corners of the rack, in the same plane as the back supports at the upper corners thereof.

The lower ends of back support portions 24 are bent outwardly defining a pair of container bottom supports 25 substantially parallel to side support rails 20 and 22 but spaced downwardly and inwardly therefrom. The outer ends or bottom supports 25 are bent inwardly and are integrally joined by a bottom support 26 which is substantially in the plane of front support rails and parallel to the axis of support channel 12. The bottom support portions 25 and 26 define a substantially U-shaped, outwardly projecting container bottom support in a plane parallel to the axis of support channel 12 and

perpendicular to the planes of the U-shaped side supports.

The open wire construction of the support rack provides maximum visibility of the container and items supported and displayed therein and makes it easy to place containers therein and remove containers therefrom. Further, the simple and unique support channel **12** need merely be positioned over an upper edge of a support member S in order to properly position the display rack **10** for supporting items therein. Moreover, the rack is supported in an inclined position from the forwardly inclined portions **18,** and the channel shaped support **12** at one end of the rack, with maximum space beneath the rack and with optimum visibility of and access to the items supported thereon.

A modified display rack **11** in FIG. **4** is similar to the display rack **10** and includes back supports **18, 19 23,** and **24** and side support rails **20, 21,** and **22** at one side thereof and has bottom supports **25** and **26.** However, the rearward end of the bottom support **25** at the other side of the rack **11** is merely bent upwardly parallel to the portions **18** and **24** and is secured at its end **17** to the support channel **12** to define an elongate, uninterrupted back support **24'**. Thus, as seen in FIG. **1,** a rack **11** may be positioned adjacent one end of the support S and a series of racks **11** then positioned adjacent thereto in side-by-side relationship therewith, and the side supports **20, 21,** and **22** on the next adjacent racks serve as side supports for the adjacent side of the preceding rack **11.** A rack **10** as in FIG. **3** may be positioned at the other end of the support S to provide a pair of side supports for containers displayed on that rack. Accordingly, by using the different types of display racks **10** and **11** in a side-by-side arrangement as in FIG. **1** a plurality of containers may be supported for display of items contained therein with the side supports of some of the display racks serving also as side supports for an adjacent display rack, thus reducing the amount of material required in making the display racks and also reducing the amount of space required for operatively positioning the display racks in side-by-side relationship.

A third form of display rack **10'** in FIG. **5** is similar to the display rack **10** of FIG. **3.** However, in this form of the invention, the back and bottom supports for a container comprises a first one-piece substantially U-shaped wire member **27** having opposite substantially vertically disposed ends **17'** suitably fixed as by welding or the like to the front wall **14** of channel support **12.** The opposite legs **28** of the U-shaped member **27** are then bent outwardly at an angle from the lower edge of front wall **14** and extend forwardly and downwardly a substantial distance from the channel support **12.** The legs of the U-shaped member are then bent outwardly at substantially a right angle to portions **28** to define bottom supports **29** joined at their outer ends by a horizontal portion **30** extending substantially parallel to the axis of channel support **12.**

A pair of side supports **31** are joined to the back support portions **28** adjacent the upper and lower ends thereof, and each side support **31** comprises a one piece wire member having relatively short parallel end portions **32** and **33** suitably fixed as by weld or the like to the outer side of the back support portions **28** adjacent the upper and lower ends thereof and extending substantially parallel to the axis of support channel **12.** The end portions **32** and **33** also comprise container back supports at the opposite upper and lower corners of the rack.

The outer ends of upper end portions **32** are bent upwardly at **34** in a direction parallel to the axes of back support portions **28** and then bent outwardly at their upper ends in a direction perpendicular to the plane of portions **32** and **34** to define upper side support rails **35.** The outer ends of upper side support rails **35** are turned downwardly in a direction parallel to the axes of back support portions **28** to define front side support rails **36,** which are turned inwardly at their lower ends parallel to upper side support rails **35** to define lower side support rails **37.** The side support rails **35, 36** and **37** thus define substantially U-shaped, outwardly projecting container side supports in spaced, parallel planes perpendicular to the axis of the channel support **12.**

The rear or inner ends of lower side support rails **37** are joined to the bottom end portions **33** by relatively short, upwardly extending portions **38** parallel to and in the plane of portions **34** at the upper end of the support rack **10'**.

The major differences of the support rack **10'** over the form of the invention of FIG. **3** is in its use of three separate, welded together, one-piece wire members and the extension of back support portions **28** completely upwardly along the back of the support rack.

One specific example of a display rack in accordance with FIG. **3** utilizes a support channel approximately 10 inches long, 1¾ inches deep, and 1¼ inches wide. The length of the front side rails **21** is approximately 8 inches and the length of the front portion **26** of bottom support is approximately 8 inches, while the side supports are spaced outwardly from the side portions **25** of bottom support approximately 2¼ inches and the bottom side support rails **22** are spaced upwardly from the plane of the bottom support approximately 2½ inches. The top and bottom side support rails **20** and **22** are approximately 6½ inches long.

Similarly, a specific support rack **11** as in FIG. **4** utilizes a support channel **12** approimately 10 inches long by 1¾ inches deep by 1¼ inches wide, and the length of portions **19** and **23** is approximately 2 inches so that the side support rails **20, 21,** and **22** are spaced outwardly approximately 2 inches from the opposite sides **25** of the bottom support. The front portion **26** of the bottom support is approximately 8 inches long while the side portions **25** are approximately 6¾ inches long. The length of back support portion **24'** is approximately 11½ inches, and the length of top and bottom side supports **20** and **22** is approximately 6½ inches, with bottom side support **22** spaced upwardly from the bottom support **25** approximately 2¼ inches.

Further, a specific example of a display rack **10'** as in FIG. **5** utilizes a support channel approximately 10 inches long by 1¾ inches deep by 1¼ inches wide, and the end portions **17** are affixed to the support channel approximately 7¾ inches apart, center-to-center. The top and bottom side supports **35** and **37** are approximately 6¾ inches long and the front side supports **36** are approximately 11½ inches long with the end portions **32** and **33** joined to the back support portion **28** approximately 2¼ inches inwardly from the end portions thereof. Further, the end portions **32** and **33** of the side supports are approximately 2 inches long.

Still further, in the construction of the above three specific examples of display racks, the channel is pref-

erably made of metal and is rigid, and the wire or rod size is approximately three-eighths of an inch in diameter and it is plated with a suitable material to enhance the appearance of the rack and to increase its durability. The size of the wire or rod results in a rigid rack, which is capable of supporting luncheon meats in the inclined position aforedescribed, when the rack is supported from one end thereof.

As this invention may be embodied in several forms without departing from the spirit or essential characteristics thereof, the present embodiment is therefore illustrative and not restrictive, since the scope of the invention is defined by the appended claims rather than by the description preceding them, and all changes that fall within the metes and bounds of the claims or that form their functional as well as conjointly cooperative equivalents, are therefore intended to be embraced by those claims.

What is claimed is:

1. A plurality of open, wire display racks disposed in side-by-side juxtaposition for displaying items supported thereon, each rack comprising: an elongate, rigid, inverted channel member having a top wall and depending, spaced apart, parallel front and back walls; an open, rigid wire frame having opposite end portions, said end portions angularly bent and permanently secured to the front wall of the channel member adjacent opposite ends thereof in spaced apart relationship to one another, said wire extending downwardly from said end portions and in a forwardly inclined position relative to said channel member front wall and defining an inclined back support for an item supported and displayed on the rack; at least one of said racks having a wire side support at only one side thereof extending perpendicularly from the plane of the back support to provide side support for said item at one side thereof, and another rack having a wire side support at both sides thereof and disposed in juxtaposition with said one rack at the other side thereof, whereby when the channel members of the racks are positioned on a support with the front and back walls thereof engaged on opposite sides of the support, one of the side supports of said another rack comprises a side support at said other side of said one rack, and the wire racks and items supported thereon are rigidly supported in a downwardly and forwardly inclined position from the support solely by engagement of the channel member thereon.

2. A plurality of display racks as in claim **1,** wherein said wire frame of said other rack comprises a first, substantially U-shaped one piece wire member having the free end of each leg thereof fixed to said front wall of said channel member adjacent the opposite ends thereof, the legs of the U-shaped wire member extend forwardly and downwardly from the channel member to define the container back support, said U-shaped wire member bent outwardly adjacent the lower ends of the legs perpendicular to the plane of the back support to define the bottom support for the container, and a pair of generally U-shaped, one piece wire side supports joined to the back support on opposite sides thereof, the ends of the U-shaped side supports bent inwardly toward one another in a direction parallel to the legs of the back support and then bent in a direction perpendicular to the planes of the side supports and toward the back support and joined at the free ends thereof to the opposite sides of the back support, respectively.

3. A plurality of display racks as in claim **1,** wherein the wire frame of said one rack comprises a one piece wire member fixed at its opposite ends to the channel member adjacent opposite ends of the channel member and bent to define a substantially U-shaped container side support at one side of the rack extending perpendicular to the axis of the channel member and a substantially U-shaped container bottom support in a plane parallel to the axis of the channel member and perpendicular to the plane of the side support, adjacent ends of adjacent legs of the side and bottom supports joined by a pair of inturned, mutually perpendicular portions defining an angularly shaped container back support at the lower corner of said one side of the rack, the other leg of the U-shaped bottom support bent upwardly perpendicular to the plane of the bottom support and joined in angular relationship to one of said ends of said wire member to define a container back support at the other side of the rack, and the other leg of said U-shaped side support joined to the other end of the wire member by a pair of mutually perpendicular portions defining a container back support at the upper corner of said one side of the rack.

4. A display rack as in claim **1,** wherein said one rack comprises a one piece wire member fixed at its opposite ends to said front wall of the channel member adjacent opposite ends of the channel member and bent to define a substantially U-shaped container side support at one side of the rack extending perpendicular to the axis of the channel member and a substantially U-shaped container bottom support in a plane parallel to the axis of the channel member and perpendicular to the plane of the side support, adjacent ends of adjacent legs of the side and bottom supports joined by a pair of inturned, mutually perpendicular portions defining an angularly shaped container back support at the lower corner of said one side of the rack, the other leg of the U-shaped bottom support bent upwardly perpendicular to the plane of the bottom support and joined in angular relationship to one of said ends of said wire member to define a container back support at the other side of the rack, and the other leg of said U-shaped side support joined to the other end of the wire member by a pair of mutually perpendicular portions defining a container back support at the upper corner of said one side of the rack, and said another rack comprises an elongate, one piece wire bent to define a pair of generally U-shaped, outwardly projecting side supports in spaced parallel planes perpendicular to the axis of the channel member, and an outwardly projecting, generally U-shaped bottom support in a plane parallel to the axis of said channel member and perpendicular to the planes of the side supports, adjacent legs of the U-shaped side and bottom supports joined by inturned, mutually perpendicular portions to define angularly shaped back supports at opposite, bottom corners of the rack, the ends of the other legs of the side supports turned inwardly and then upwardly to define angularly shaped back supports at opposite, upper corners of the rack, said upwardly turned ends fixed to said channel member to support said rack thereon.

5. A plurality of wire display racks as in claim **1,** wherein said one rack includes at each of the opposite sides thereof a first portion extending laterally outwardly from the downwardly and forwardly inclined

frame in a direction parallel to the axis of the channel member, a second portion extending forwardly from the first portion in a direction perpendicular to the plane of the back support, a third portion extending downwardly and forwardly from the second portion in a direction parallel to and spaced from the plane of the back support, a fourth portion extending rearwardly from the third portion in a direction parallel to the second portion, said second, third and fourth portions all lying in the same plane and defining said side supports for the commodity, a fifth portion extending laterally inwardly from the fourth portion in a direction parallel to the axis of the first portion and in the same plane as the first portion and back support, and interconnected portions extending forwardly at opposite sides of the frame in a direction perpendicular to the plane of the back support and defining the bottom support for the commodity.

6. A plurality of wire display racks as in claim 1, wherein said end portions of said another rack extend substantially perpendicularly and are welded to the front wall of the channel member adjacent opposite ends thereof in parallel, spaced apart relationship, said wire bent angularly outwardly adjacent the lower edge of the front wall and extending downwardly from said end portions and in a forwardly inclined position relative to the plane of said channel member front wall and defining said inclined back support for an item at opposite sides of the rack; a wire side support extending forwardly perpendicularly from the plane of the back support at opposite sides thereof to provide said side supports for said item, and a bottom support extending forwardly perpendicularly from the plane of the back support at a lower end thereof to provide said bottom support for an item supported on the rack.

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