

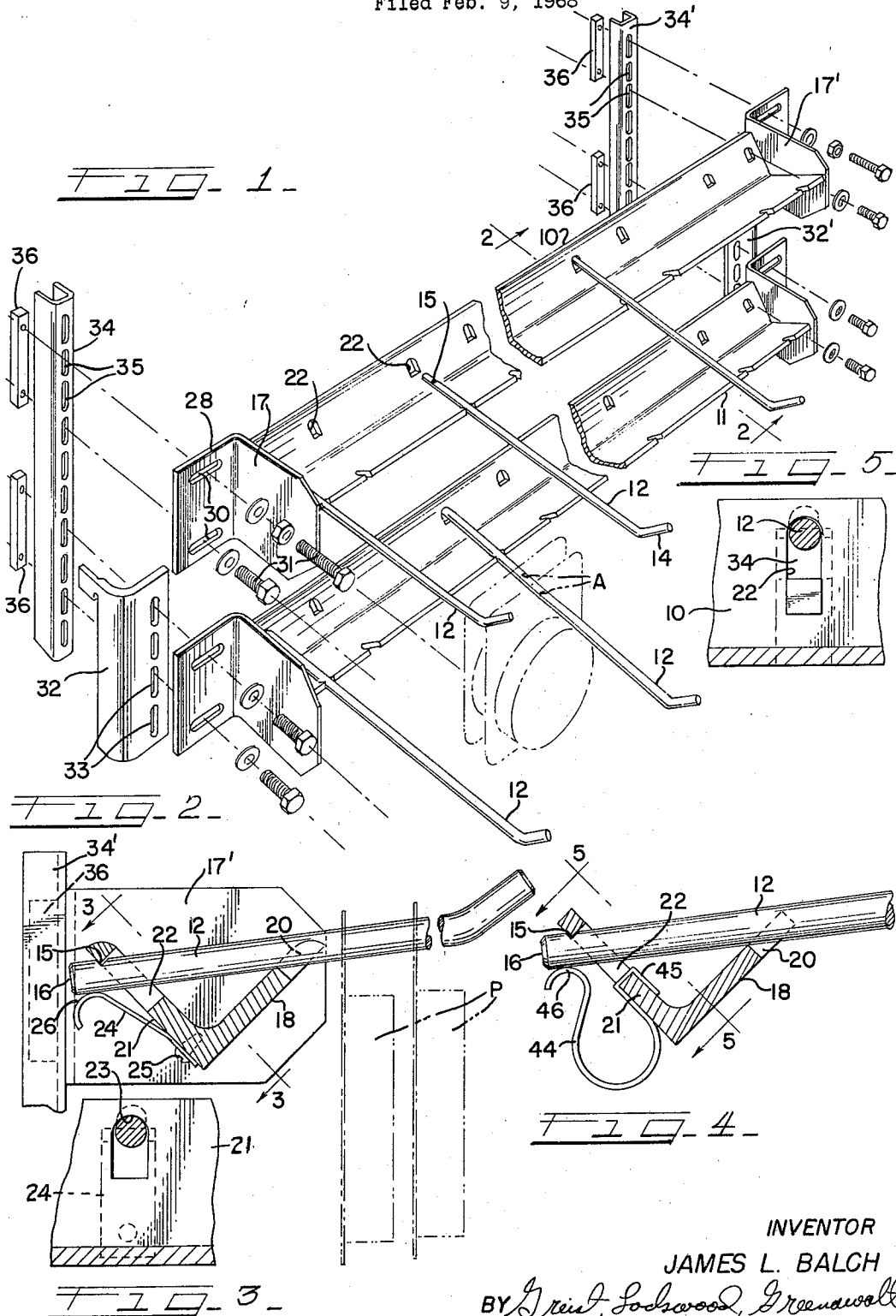
Dec. 30, 1969

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3,486,632

ARTICLE DISPLAY RACK

Filed Feb. 9, 1968



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ARTICLE DISPLAY RACK

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Filed Feb. 9, 1968, Ser. No. 704,365

Int. Cl. A47f 5/10, 7/00

U.S. Cl. 211—57

11 Claims

ABSTRACT OF THE DISCLOSURE

A package display and support rack particularly designed for installation below the top shelf of an open face display counter commonly employed in supermarkets and other retail stores for storing and displaying packaged meat products such as sliced luncheon meat, which rack comprises one or more supporting bars having a series of removably attached peg forming rods on which a plurality of the packages may be suspended with the rods extending through apertures which are provided in the packages for this purpose.

This invention relates to display devices and is more particularly concerned with an improved display rack adapted to be installed beneath the top shelf of an open face refrigerated counter for supporting and displaying package products such as sliced luncheon meats.

In the marketing of a number of products, for example, sliced luncheon meat, cheese, and the like, the products are enclosed in relatively small containers or packages and it is the common practice to provide open face refrigerated cabinets in supermarkets and other self-service retail stores for storing and displaying such packages. The display and storage cabinets are ordinarily designed with a shelf above the open face on which additional merchandise can be displayed for sale. Recently an effort has been made to utilize the space between the top shelf and the storage area in the bottom of the cabinet for the display of additional packages by providing some type of support for the packages, on the back wall inside the cabinet, with the packages being especially designed in some arrangements to facilitate suspending a plurality of the packages on separate hangers or the like.

It is a general object of this invention to provide a display rack for supporting packaged products or other merchandise in an attractive manner which is highly versatile in use, easily installed on a supporting wall, in a cabinet, over a counter, or the like.

It is a further object of the invention to provide a new and improved display device for articles such as packaged merchandise, which will support a large number of the packages, in a relatively small space and in a neat and attractive manner, so that the packages will normally remain in place and not accidentally fall off of the rack but may be easily removed by a customer.

It is another object of the invention to provide a display device of the type described which is adapted to be readily assembled and disassembled without special tools and which is so constructed that it is easily loaded with the packages or other articles to be displayed.

It is still another object of the invention to provide an improved display device which comprises one or more elongate rack forming bars adapted to be mounted beneath the shelf of an open face refrigerator display cabinet and provided with a series of peg forming rods for supporting a plurality of packages which have apertures enabling them to be suspended on the rods, the rods being readily removable from the rack bars, so as to enable the packages to be loaded from the rear end thereof, and being constructed so as to permit the

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packages to be slid off the forward end while normally holding the packages on the rods.

These and other objects and advantages of the invention will be apparent from a description of the display rack structure which is shown by way of illustration in the accompanying drawings wherein:

FIGURE 1 is an exploded perspective view, with portions broken away, of a double bar article supporting rack assembly which embodies the invention, the rack assembly being adapted to be mounted at its ends on a refrigerated display cabinet or similar supporting structure;

FIGURE 2 is a cross section to an enlarged scale, the view being taken on the line 2—2 of FIGURE 1 and showing the rack bar mounted on a support;

FIGURE 3 is a fragmentary sectional view taken on the line 3—3 of FIGURE 2;

FIGURE 4 is a cross sectional view similar to FIGURE 2 illustrating a modified form of rod retainer member; and

FIGURE 5 is a fragmentary sectional view taken on the line 5—5 of FIGURE 4.

Referring to FIGURE 1 of the drawings, there is illustrated a double bar rack assembly with associated means for mounting the same on the inside back wall of an open face refrigerated display cabinet of a type commonly found in supermarkets and other self-service stores of various kinds. The rack bars 10 and 11 may be used separately or in multiples of any desired number, a two bar assembly being shown to illustrate a typical installation providing two rows of package supporting pegs or rods 12, the rows being spaced vertically one above the other a sufficient distance to accommodate the packages being displayed. The package supporting rods or pegs 12 are of identical construction except for being of different lengths, if desired, depending upon the number of packages to be supported and the size or thickness thereof.

Each of the peg forming rods 12 comprises a length of round rod or bar having at one end, which constitutes the forward end thereof, an upturned portion 14 which insures that the packages will not accidentally slide off the end of the rod. Notch 15 is provided in the top surface near the other end 16 of the rod 12 which is relatively shallow and which is adapted to latch the rod 12 in operative position on the supporting rack bar 10. The supporting rack bar 10 is in the form of a length of angle bar extending between two angle brackets 17 and 17'. The bar 10 is adapted to be disposed, when mounted for use, at an angle, or tilted, relative to vertical and horizontal planes as illustrated in FIGURE 2 with the forward flange 18 having, in its free edge, a series of longitudinally spaced notches 20 in which the peg rods 12 are adapted to be seated. The back flange 21 of the bar 10 is provided with a series of apertures 22 spaced along the length thereof and adapted to receive the rear ends of the peg rods 12 which apertures 22 are aligned with the notches 20. The apertures 22 are of generally rectangular shape with the top edge rounded as shown in FIGURE 3 so that the notch 15 in the rod 12 may engage the rearmost edge of the bar portion which defines or surrounds the aperture 22. In the form of the device shown, the apertures 22 and associated notches 20 are spaced lengthwise of the bar 10 so as to permit some variation in the spacing of the peg rods 12 in order to accommodate packages or articles of different widths, enabling each rod 12 to be fully loaded with the packages.

A rod retaining spring 24 is secured by screw 25 or other fastening means on the back face of the back flange 21 at each of the apertures 22. The free end portion of the spring 24 is reversely curved at 26 and the spring is dimensioned so that when the end 16 of the rod 12 is

passed through the aperture 22 the curved end 26 of the spring 24 will engage on the bottom of the rod 12 and resiliently hold the notch 15 in engagement with the edge of the bar 10 at the top of the aperture 22 as shown in FIGURE 2, and releasably lock the rod 12 in operative position. The rod 12 is, of course, adapted to be rotated about its axis to disengage the slot or groove 15 and enable the rod 12 to be withdrawn in an axial direction for loading from the notched end 16. To replace the rod 12 in operative position it is only necessary to insert the notched end in the aperture 22, so as to move the spring 24 back until the notch 15 is engaged with the bar at the edge of the slot 22 and the bar is seated in the notch 20 at the edge of the flange 18. The rod 12 is then resiliently locked in position and cannot drop out accidentally so that packages P which are placed thereon by passing the rod 12 through the aperture A which is provided in the package flange, are suspended, as indicated in dot-dash line in FIGURES 1 and 2, and properly displayed.

As shown in FIGURE 1, the bar 10 is brazed or otherwise secured to end plates or brackets 17 and 17' each of which is provided with a vertical flange 28. The flange 28 has a pair of vertically spaced elongate slots 30 for accommodating fastening bolts 31 and a single bar may be mounted by means of mounting brackets 32 and 32' having bolt receiving apertures 33. Elongate extension channel bars 34 and 34' may be provided, each having a series of bolt receiving slots 35, for mounting a plurality of the rack bars 10 and 11 in vertically spaced relation on a vertical wall, the channels serving to space the rack bars 10 and 11 from the supporting wall a sufficient distance to permit manipulation of the peg rods 12. Nut forming lock bars 36 are provided for co-operation with the bolts 31 to clamp the brackets 17, 17' to the brackets 32 and/or the extension channels 34 which are in turn fastened to the support wall.

An alternative latching spring arrangement may be provided as shown in FIGURES 4 and 5 using the same rack bar construction. The spring 44 is attached to the bar 10 by providing a spring clip formation 45 at the one end which is adapted to engage in clamping relation over the bar material at the lower edge of the aperture 22 and to frictionally hold the spring 44 in position. The body of the spring 44 is reversely curved, as shown, and the free end is curved in the opposite direction as 46 for frictional engagement with the bottom of the rod 12 so as to hold the rod with the notch 15 in proper position for engagement therein of the edge of the bar 10 at the top of the aperture 22.

While particular materials and specific details of construction are referred to in describing the illustrated forms of the apparatus, it will be understood that other suitable materials and equivalent structural details may be resorted to within the spirit of the invention.

I claim:

1. An article supporting and display rack comprising an elongate angle bar extending between end support brackets, said bar having flanges adapted to be disposed in upwardly and outwardly diverging relation and inclined relative to a horizontal plane, one of said flanges having a series of longitudinally spaced rod receiving apertures, a plurality of article supporting rods of substantial length adapted to be removably mounted in said apertures so as to extend laterally of said bar across the other flange on said bar, and resilient means associated with said apertures for frictionally retaining said rods in position on said bar.

2. An article supporting and display rack as set forth in claim 1 and said bar having a plurality of notches in the outermost edge of said other one of said flanges for receiving portions of the article supporting rods which notches are aligned with the rod receiving apertures transversely of the bar.

3. An article supporting and display device comprising an elongate bar of angular cross section having brackets

at its ends for supporting the same from a wall or other fixed member, said bar being disposed with its flanges extending in diverging relation and upwardly of a generally horizontal plane, a plurality of peg forming rods detachably mounted on said bar so as to extend laterally thereof for supporting in suspended relation thereon articles each slot with a portion thereof positioned to resiliently engage the peg rod and hold the same in the slot.

4. An article supporting and display device as set forth in claim 3, and said means for retaining the peg rods in said slots comprising a spring member mounted adjacent each slot with a portion thereof positioned to resiliently engage the peg rod and hold the same in the slot.

5. An article supporting and display device as set forth in claim 3, and said means for retaining the peg rods in said slots comprising a spring member attached at one end thereof adjacent each of said slots and having a free end extending over the slot so as to engage a rod positioned therein and resiliently clamp the rod against the edge of the slot.

6. An article supporting and display device as set forth in claim 5, and each said peg rod having a shallow notch in the top surface thereof adjacent the bar engaging end for receiving the edge of the bar which constitutes the top edge of the slot.

7. An article supporting and display device as set forth in claim 3, and said means for retaining the peg rods in said slot comprising a flat spring member attached at one end to the outside face of the bar adjacent the innermost end of each said slot and having a curved portion at the other end position to engage beneath a peg rod when the latter is inserted in the slot so as to resiliently hold the rod in engagement with the bar edge at the outermost end of the slot.

8. An article supporting and display device comprising an elongate supporting bar member having a plate-like portion disposed in a generally vertical plane with longitudinally spaced apertures therein for receiving the ends of article supporting peg rods, means for resiliently clamping each rod end against the edge of the plate-like portion at one side of the associated aperture and means for supporting each rod at a point spaced from the plate-like portion and a substantial distance along the axis of the rod so that the rod extends laterally of the bar member in a generally horizontal position to suspend articles thereon.

9. An article supporting and display device as set forth in claim 8, and the means for resiliently clamping each rod end comprising a spring member secured to the bar member adjacent each slot and having a free end positioned to engage the rod end.

10. An article supporting and display device comprising an elongate supporting bar member having longitudinally spaced slots therein for receiving the ends of article supporting peg rods, means for resiliently clamping each rod end against the edge of the bar member at one side of the slot and means for supporting each rod at a point spaced from the clamping point so that the rod extends laterally of the bar member in a position to suspend articles thereon, and the means for resiliently clamping each rod end comprising a flat spring member having a hook-shaped end for resiliently mounting the same on said bar member by engaging the hook-shaped end over a marginal portion of the bar member at one side of the slot in which the rod end is received.

11. An article supporting and display device as set forth in claim 9, and each rod end having means at the point where it is engaged between the edge of the plate-like portion and the free end of the spring member and cooperating with said plate-like portion and said

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spring member to latch the rod in operative position and
releasably restrain said rod against axial movement.

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JAMES A. LEPPINK, Primary Examiner

U.S. Cl. X.R.

211—87; 248—223

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,486,632 Dated December 30, 1969

Inventor(s) James L. Balch

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 4, line 7, before "flanges" insert -- having apertures for receiving the peg rods, one of said --

Column 4, lines 40 and 41, "longitudinally" should be -- longitudinally --

SIGNED AND
SEALED

JUN 23 1970

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