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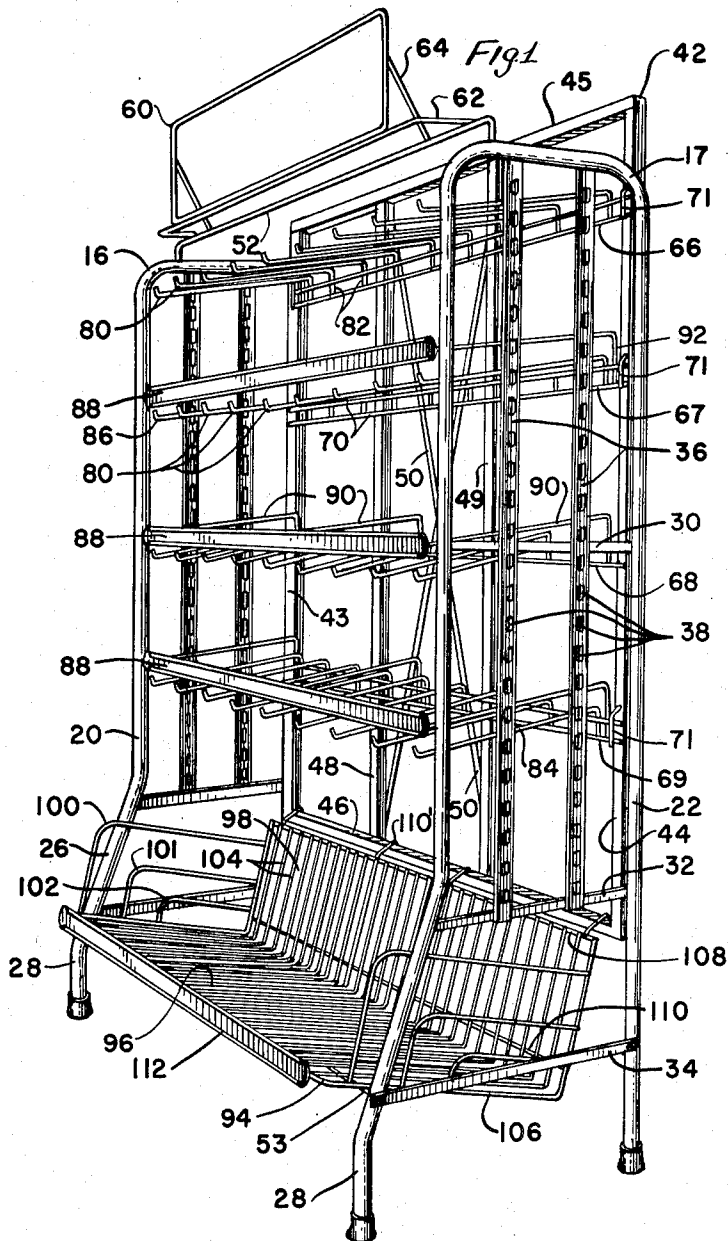
M. J. KELLING

2,802,576

DISPLAY RACK

Filed June 17, 1955

3 Sheets-Sheet 1



INVENTOR.

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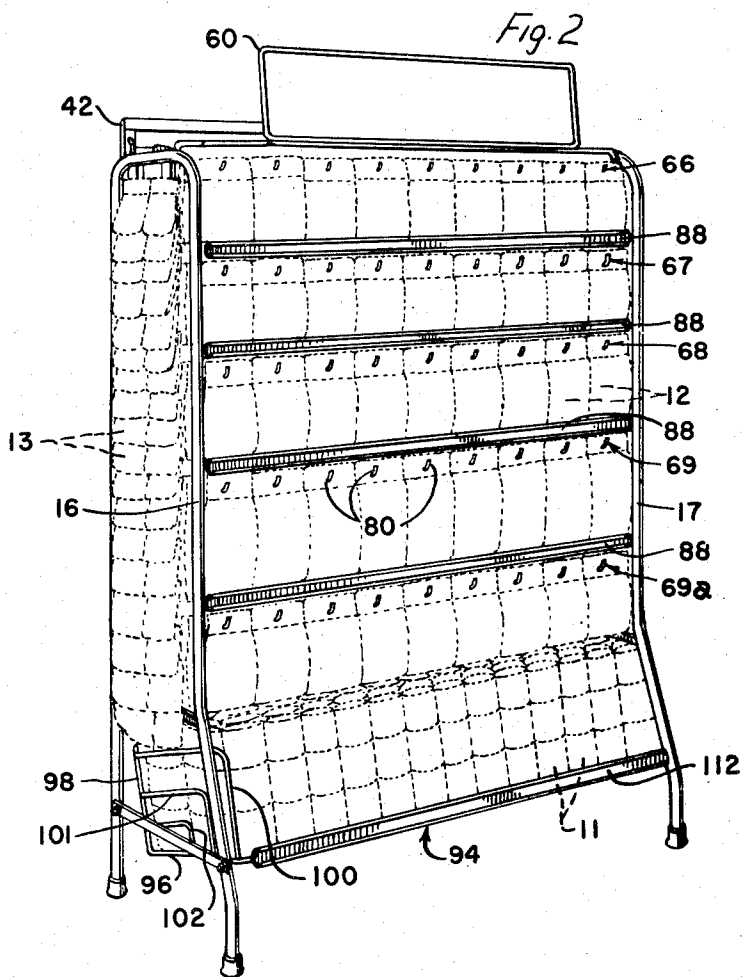
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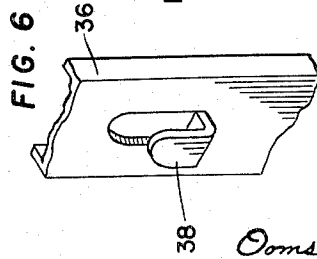
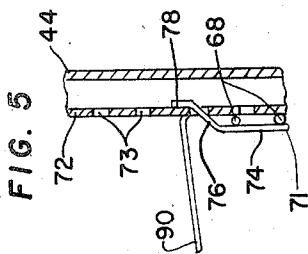
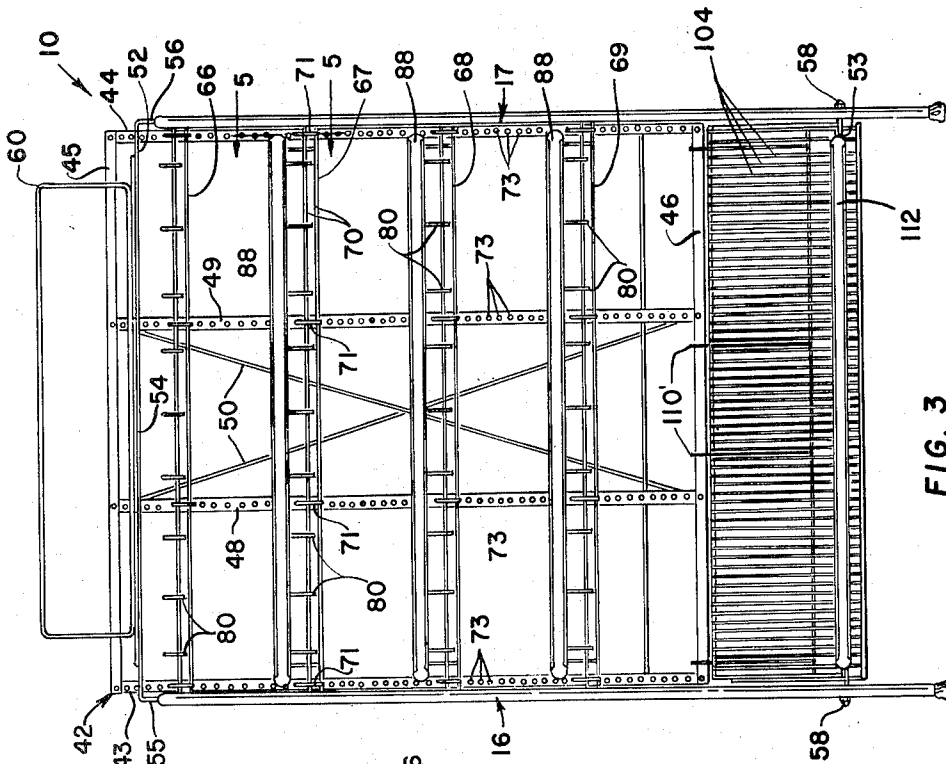
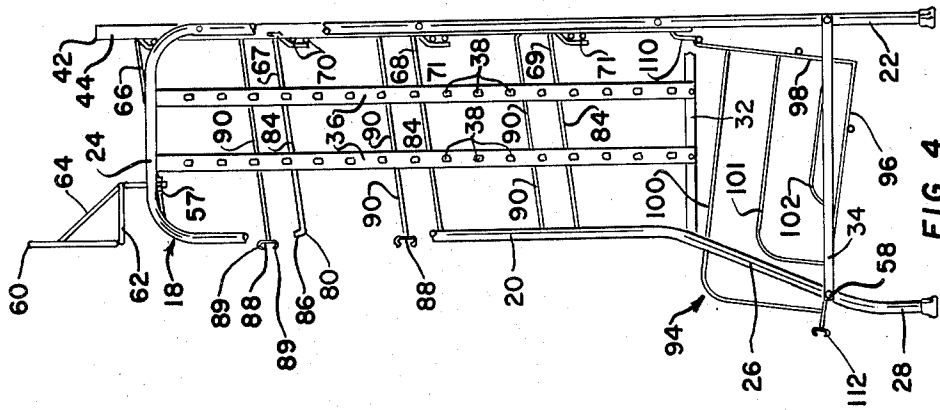
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2,802,576

DISPLAY RACK

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5 Claims. (Cl. 211—59)

This invention relates to a display rack for use in the sale of merchandise, and particularly to a rack adapted to support a large number of packages or articles.

One principal object of the invention is to provide a display rack upon which a large number of packages or articles may be suspended in a new and improved manner, so that the articles will move toward the front of the rack by gravity as they are successively removed from the rack by purchasers.

It is another object to provide a new and improved display rack upon which packages may be suspended in such a manner that the front of the rack will automatically be kept full.

A further object is to provide a new and improved display rack of the foregoing character which may be adjusted so as to support packages or articles of various sizes.

It is another object to provide a new and improved rack of the foregoing character which also affords support for cans or other similar packages in such a manner that the packages are tilted rearwardly so as to be readily visible from the front.

A further object is to provide a new and improved display rack which is sturdy and effective yet is simple in construction, light in weight, and low in cost.

Further objects and advantages of the invention will appear from the following description, taken with the accompanying drawings, in which:

Figure 1 is a right-front perspective view of the display rack constituting an illustrative embodiment of the invention;

Fig. 2 is a left-front perspective view showing the rack loaded with merchandise, the merchandise being shown in dotted lines;

Fig. 3 is a front elevational view of the rack;

Fig. 4 is a right side elevational view of the rack;

Fig. 5 is a fragmentary enlarged sectional view, taken generally along a line 5—5 in Fig. 3; and

Fig. 6 is a fragmentary enlarged perspective view showing a hook element embodied in the rack.

It will be seen that the drawings illustrate a display rack 10 adapted to support a large number of articles, such as packages of nuts, for example. Fig. 2 shows the display rack loaded with packages, in the form of cans 11 and two types of transparent envelopes or sacks 12 and 13.

The illustrated rack 10 preferably comprises left and right hand end or side frames 16 and 17, which may be essentially the same. Accordingly, only the right hand frame 17 need be described in detail. It will be seen that the frame 17 comprises a tubular main member 18 which is bent into generally inverted U-shaped form. Thus, the member 18 comprises generally vertical front and rear legs 20 and 22 joined by a horizontal cross portion 24 at the top of the side frame 17. The front leg 20 has an outwardly angling lower portion 26 terminating at its lower end in a vertical foot portion 28. Cross bars 30, 32 and 34 extend horizontally between

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the front and rear legs 20 and 22 at vertically spaced points. It will be seen that a pair of vertical channel-shaped bars 36 extend between the horizontal top portion 24 and the cross bar 32. As illustrated in Fig. 6, hooks 38 may be struck out of the vertical bars 36. It will be seen from Fig. 2 that a large number of the sacks 13 or other articles may be hung upon the hooks 38.

The side frames 16 and 17 of the rack 10 are connected together by means of a rear frame 42, which includes left and right hand vertical bars 43 and 44, as well as upper and lower horizontal bars 45 and 46. The vertical bars 43 and 44 are bolted or otherwise suitably secured to the rear legs 22 of the side frames 16 and 17. It will be seen that the horizontal bars 45 and 46 extend between the upper and lower ends of the vertical bars 43 and 44. Additional vertical bars 48 and 49 are arranged to extend between the horizontal bars 45 and 46 at points spaced horizontally between the vertical bars 43 and 44. The rear frame 42 may be reinforced with a pair of diagonal cross braces 50.

In the illustrated rack 10, upper and lower cross rods 52 and 53 extend between the upper and lower portions of the side frames 16 and 17. More specifically, the upper rod 52 is formed with an elongated horizontal portion 54, together with depending end portions 55 and 56 which extend through apertures in the horizontal frame portions 24 and are secured in place by nuts 57. The lower cross rod 53 is straight and is arranged to extend through apertures in the lower ends of the front legs 20. Nuts 58 are provided to hold the rod 53 and cross bar 34 in place.

The upper cross rod 52 may be employed to support an elongated, vertical, rectangular border frame 60, on which an advertising sign may be mounted. Horizontal and diagonal members 62 and 64 are utilized to connect the illustrated sign frame 60 to the cross rod 52.

The display rack 10 is arranged in a new and improved manner so as to support a large number of articles, such as transparent sacks or envelopes containing nuts or the like. The sacks are suspended on the rack in such a manner that they tend to slide toward the front of the rack by gravity, as purchasers remove the front packages. In this way, the front of the rack is always kept full. This is an important consideration in merchandising, inasmuch as buyers select their purchases most freely from a display device which appears to be full.

To support the sacks or other packages, the rack 10 is provided with one or more hook frames. The rack 10 is provided with four such hook frames. Four such frames 66, 67, 68 and 69 are illustrated in Figs. 1, 3 and 4, while an additional frame 69a is shown in Fig. 2. All of the hook frames are essentially the same, except for minor differences, to be described below, between the uppermost frame 66 and the other frames. Accordingly, only the frame 67 need be described in detail. It will be seen that the illustrated hook frame 67 comprises a pair of vertically spaced horizontal rods 70 which engage the front faces of the vertical members 43, 44, 48 and 49, the rods 70 being of sufficient length to extend between the members 43 and 44. The hook frame 67 is detachably connected to the vertical members 43, 44, 48 and 49 by means of four hanger rods 71, disposed in vertical planes aligned with the vertical members. As illustrated to advantage in Fig. 5, each of the vertical members 43, 44, 48 and 49 has a front wall 72 formed with a large number of vertically spaced apertures 73. Each of the hanger rods 71 has a lower vertical portion 74 which is welded or otherwise secured to the front portions of the horizontal rods 70. A rearwardly and upwardly angling diagonal portion 76 surmounts the lower portion 74 and extends through one of the apertures 73. The hanger rod is retained in the aperture 73 by means of a vertical upper portion 78 which extends upwardly from the diagonal

portion 76. It will be understood that the hanger rods 71 may be disengaged from the apertures 73 by swinging the hook frame 67 upwardly so that the portions 76 and 78 may be withdrawn from the apertures. Thus, the hook frames may be adjusted vertically along the display rack so as to engage any desired set of the apertures 73.

To support the packages, the hook frame 67 includes a large number of individual hooks 80, each of which is in the form of a rod having a rear portion 82 welded or otherwise secured to the horizontal supporting rods 70. As illustrated, the rear portions 82 extend vertically between the rear portions of the rods 70. Elongated linear portions 84 extend forwardly from the upper ends of the rear portions 82, the latter thus being in depending relation to the portions 84. It will be seen that the elongated portions 84 slant downwardly at a substantial angle toward the front of the rack 10. Thus, the packages, when suspended on the hooks 80, will tend to slide downwardly along the portions 84. An upturned portion 86 is formed at the front of each hook to retain the packages or other articles on the slanting portion 84.

As illustrated, the hook frames 67, 68 and 69 are also provided with elongated, horizontal, channel-shaped strips or bars 88 having opposed flanges 89 to support elongated advertising signs. The sign-supporting strips 88 are disposed above the hooks 80 and adjacent the front of the display rack 10. Supporting rods 90 extend rearwardly from the strips 88, generally in parallel relation to the slanting hook portions 84. The rear ends of the rods 90 are connected to the hook frames 67-69 by means of portions 92 which depend from the rods 90 and are welded or otherwise secured to the horizontal supporting rods 70. It will be seen that the uppermost hook frame 66 is not provided with a sign-supporting strip, because of the immediate proximity of the sign-supporting frame 60.

At the lower end of the display rack 10, additional means are provided for supporting packages of the type exemplified by the cans 11. The additional supporting means comprise a shelf unit 94 having a shelf or platform 96 which slants downwardly toward the rear of the rack so that the cans 11 or other packages will be tilted rearwardly. In this way, the labels on the cans will be clearly visible from normal eye level. Accordingly, the effectiveness of the display on the lower shelf is greatly enhanced. In conventional displays, the lowermost shelf generally has little sales power, since the articles on the shelf are not readily visible. By slanting the shelf rearwardly, the sales power is greatly increased. To retain the packages on the slanting shelf 96, a backstop 98 is provided. The sides of the shelf unit 94 are also effectively enclosed by side rails 100, 101, and 102, arranged one within another.

The shelf 96 and the backstop 98 may be defined by a large number of rods 104 bent into L-shaped form. A border rod 106 may be bent so as to extend along the front and sides of the shelf unit 94. The side rails 100-102 are welded or otherwise secured to the border rod 106. It will be seen that upper and lower horizontal cross rods 108 and 110 are welded or otherwise secured to the rods 104 and 106 so as to extend across the backstop 98. A plurality of hooks 110' are secured to the upper cross rod 108 and are arranged to suspend the rear portion of the shelf 94 on the horizontal frame member 46. The front portion of the shelf 96 is supported on the horizontal cross rod 53 which extends between the side frames 16 and 17. A sign-supporting strip 112, which may be similar to the strips 88, is mounted on the front of the shelf 96.

It will be apparent that a large number of packages of various kinds may be displayed effectively on the rack. Transparent sacks or envelopes of various sizes may be suspended on the elongated hooks 80. For this purpose, the packages may be provided with apertured top por-

tions, as indicated in Fig. 2. The vertical positions of the hook frames 66-69 may be adjusted in accordance with the size of the packages being displayed. A large number of packages may be suspended on each hook 80. As the foremost package is removed from each hook, the others will slide down the slanting portion 84 until they are arrested by the upturned portion. Thus, the front of the rack will be kept full automatically.

Additional packages may be suspended on the hooks 38 formed on the end frames 16 and 17. Moreover, a large number of cans, boxes or the like may be stacked on the shelf unit 94. Due to the rearward inclination of the shelf, the packages will be tilted rearwardly so that their labels may readily be seen from normal eye level. In this way the sales power of the shelf is greatly enhanced.

The display rack is effective and sturdy yet is readily portable, simple in construction and low in cost. The rack may be shipped in a knocked-down condition and easily assembled for use.

Various other modifications, alternative constructions and equivalents may be employed without departing from the true spirit and scope of the invention as exemplified in the foregoing description and defined in the following claims:

I claim:

1. In a display rack, the combination comprising a pair of upright side frames, a rear frame comprising a pair of vertical members secured to said side frames and upper and lower horizontal members extending between the upper and lower ends of said vertical members, said rear frame including at least one additional vertical member extending between said horizontal members at a point spaced between said first mentioned vertical members, each of said vertical members having a front wall with a plurality of vertically spaced apertures extending therethrough, a plurality of rack elements located between said end frames and detachably connected to said vertical members, each of said rack elements including a pair of horizontal rods disposed in front of said vertical members and engaging said front walls thereof, a plurality of mounting rods disposed in vertical planes aligned with said vertical members, said mounting rods having lower vertical portions secured to the front portions of said horizontal rods and extending therebetween, said mounting rods having rearwardly and upwardly angling portions surmounting said lower portions and extending through selected ones of said apertures, said mounting rods having vertical upper portions surmounting said angling portions and disposed behind said front walls of said vertical members to retain said rack elements thereon, each of said rack elements having a plurality of horizontally spaced display hooks of rodlike form, each of said display hooks having a rear depending portion extending between said horizontal rods and secured thereto, an elongated portion extending forwardly from said depending portion and slanting downwardly toward the front for receiving a plurality of articles in such manner that the articles will tend to slide toward the front of said rack, and an upwardly projecting portion at the front of said elongated slanting portion for retaining the articles on said hooks until manually removed.

2. In a display rack, the combination comprising a pair of upright side frames, a rear frame extending between said side frames and including a plurality of vertical members, each of said vertical members having a front wall with a plurality of vertically spaced apertures extending therethrough, a plurality of rack elements located between said end frames and detachably connected to said vertical members, each of said rack elements including a pair of horizontal rods disposed in front of said vertical members and engaging said front walls thereof, a plurality of mounting rods disposed in vertical planes aligned with said vertical members, said mounting rods having lower vertical portions secured to the front portions of said horizontal rods and extending therebetween,

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rearwardly and upwardly angling portions surmounting said lower portions and extending through selected ones of said apertures, and substantially vertical upper portions surmounting said angling portions and disposed behind said front walls of said vertical members to retain said rack elements thereon, each of said rack elements having a plurality of horizontally spaced display hooks of rodlike form, each of said display hooks having a rear portion extending between said horizontal rods and secured thereto, an elongated portion extending forwardly from said rear portion and slanting downwardly toward the front for receiving a plurality of articles in such manner that the articles will tend to slide toward the front of said rack, and an upwardly projecting portion at the front of said elongated slanting portion for retaining the articles on said hooks until manually removed.

3. In a display rack, the combination comprising a pair of upright side frames, a rear frame extending between said side frames and including a plurality of vertical members, each of said vertical members having a front wall with a plurality of rack elements located between said end frames and detachably connected to said vertical members, each of said rack elements including a pair of horizontal rods disposed in front of said vertical members and engaging said front walls thereof, a plurality of mounting rods disposed in vertical planes aligned with said vertical members, said mounting rods having lower vertical portions secured to the front portions of said horizontal rods and extending therebetween, rearwardly and upwardly angling portions surmounting said lower portions and extending through selected ones of said apertures, substantially vertical upper portions surmounting said angling portions and disposed behind said front walls of said vertical members to retain said rack elements thereon, each of said rack elements having a plurality of horizontally spaced display hooks of rodlike form, each of said display hooks having a rear portion extending between said horizontal rods and secured thereto, an elongated portion extending forwardly from said rear portion and slanting downwardly toward the front for receiving a plurality of articles in such manner that the articles will tend to slide toward the front of said rack, an upwardly projecting portion at the front of said elongated slanting portion for retaining the articles on said hooks until manually removed, and each of said rack elements including a display strip extending horizontally adjacent and above said front portions of said hooks and having means for supporting a sign, and a pair of rods extending rearwardly from said strip and having depending rear portions secured to and extending between said horizontal rods for supporting said strip.

4. In a display rack, the combination comprising an upright frame having a plurality of vertical members, each of said members having a front wall with a plurality of vertically spaced apertures therein, a rack element detachably connected to said vertical members, said rack element comprising a pair of vertically spaced horizontal supporting rods spanning said vertical members and engaging said front walls, a plurality of mounting rods having lower portions extending between and secured to said horizontal rods, said mounting rods having intermediate portions surmounting said lower portions and ex-

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tending upwardly and rearwardly at an incline through selected ones of said apertures, said mounting rods having upper portions surmounting said intermediate portions and disposed behind said front walls for retaining said mounting rods, a plurality of display hooks connected to said horizontal supporting rods and spaced horizontally therealong, each of said display hooks being of rodlike form and having a rear portion extending between and secured to said horizontal supporting rods, an elongated portion extending forwardly from said rear portion of said hook and slanting downwardly from rear to front to support suspended articles in such manner that the articles will tend to slide forwardly by gravity along said elongated portions, and a front portion extending upwardly from the front end of said elongated portion for retaining the articles on said hook.

5. In a display rack, the combination comprising an upright frame having a plurality of vertical members, each of said members having a front wall with a plurality of vertically spaced apertures therein, a rack element detachably connected to said vertical members, said rack element comprising a pair of vertically spaced horizontal supporting rods spanning said vertical members and engaging said front walls, a plurality of mounting rods having lower portions extending between and secured to said horizontal rods, said mounting rods having intermediate portions surmounting said lower portions and extending upwardly and rearwardly at an incline through selected ones of said apertures, said mounting rods having upper portions surmounting said intermediate portions and disposed behind said front walls for retaining said mounting rods, a plurality of display hooks connected to said horizontal supporting rods and spaced horizontally therealong, each of said display hooks being of rodlike form and having a rear portion extending between and secured to said horizontal supporting rods, an elongated portion extending forwardly from said rear portion of said hook and slanting downwardly from rear to front to support suspended articles in such manner that the articles will tend to slide forwardly by gravity along said elongated portions, and a front portion extending upwardly from the front end of said elongated portion for retaining the articles on said hook, said rack element including a display strip extending horizontally adjacent said front portions of said hooks in generally overlying relation thereto and having means for supporting a sign, and a pair of rods extending rearwardly from said strip and having depending rear portions secured to and extending between said horizontal rods for supporting said strip.

References Cited in the file of this patent

UNITED STATES PATENTS

107,343	Dimock	Sept. 13, 1870
2,016,194	Fredin	Oct. 1, 1935
2,166,708	Sullivan	July 18, 1939
2,246,692	Ohme	June 24, 1941
2,419,624	Black	Apr. 29, 1947
2,626,061	Girouard	Jan. 20, 1953

FOREIGN PATENTS

815,488	France	Apr. 12, 1937
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