May 24, 1966 S. N. MYERS ETAL 3,252,678

DISPLAY SUPPORT

Filed June 11, 1964

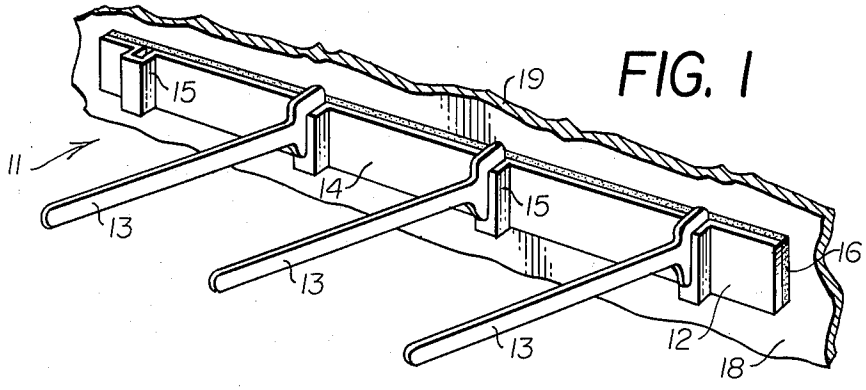


FIG. 1

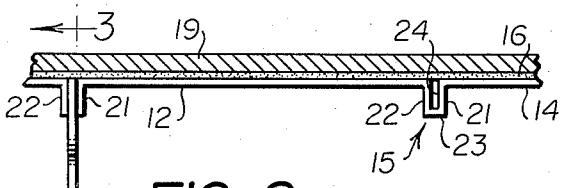
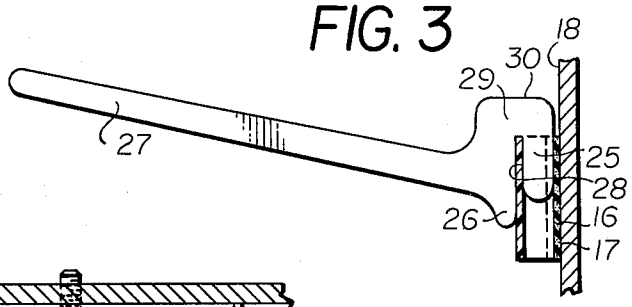


FIG. 2



FIG. 3



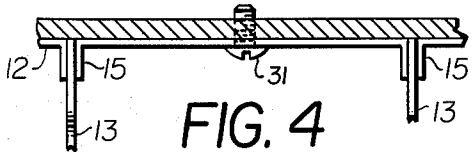


FIG. 4

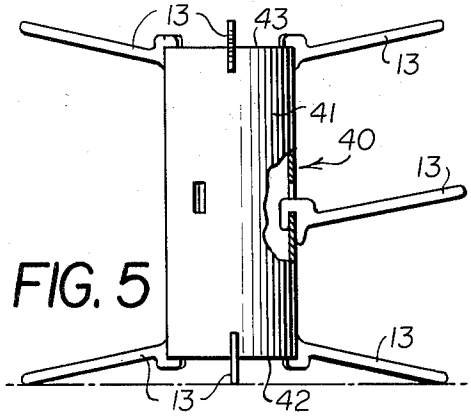


FIG. 5

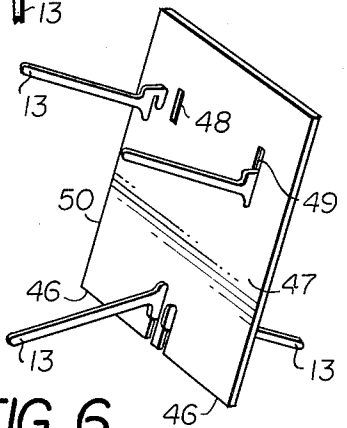


FIG. 6

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United States Patent Office 3,252,678 Patented May 24, 1966

3,252,678

DISPLAY SUPPORT

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Filed June 11, 1964, Ser. No. 374,343
9 Claims. (Cl. 248—223)

The present invention relates generally to brackets and supports and relates more specifically to an apparatus for supporting and displaying articles.

In retailing, merchants have found that goods displayed in the immediate visual vicinity of the point of purchase are easily sold. A buyer during the purchase of one commodity often buys another commodity upon seeing it at the point of purchase either because it reminds him of a forgotten need or because of an impulse. The so-called impulse buying has led to the development of numerous point of purchase display devices.

The problem with prior point of purchase displays has been the limited space available for display racks and other display apparatus. Most point of purchase displays have been primarily floor racks set up in front of the check-out counter or racks on boards behind the check-out clerk. In many establishments, cumbersome racks are even set out on the check-out counter although they obviously defeat the purpose of the counter.

The present invention provides a display apparatus which may be mounted almost anywhere, even attached to the cash register at the point of purchase. This facility of mounting is an important feature in providing immediacy and flexibility to display arrangements. In other words, the present display rack may be mounted almost anywhere and immediately when needed. The display apparatus of the present invention is also a relatively inexpensive rack which may be manufactured in small or extremely large quantities at very low cost.

In its preferred form, the present display rack comprises a plate-like hanger support having a plurality of integral portions defining hanger receiving channels. When the display rack is mounted on a wall or other surface, the channels and the wall together define rectangular hanger receiving holes. A plurality of somewhat L-shaped hangers are provided and each is carried by the display rack by inserting the short leg of the L as a tongue into a hanger receiving hole. The other leg of the L-shaped hanger projects away from the wall and the hanger support and preferably slopes upwardly when the hanger is mounted on a vertical wall to form an article hanging finger.

The hanger supports are preferably manufactured by extruding long sheets of a resilient material, such as a synthetic plastic material, and laterally slicing the sheets at intervals equal to the desired width of the hanger supports. The L-shaped hangers are thin flat members with both legs lying in a common plane and are relatively stiff in that plane but are also laterally flexible. The hangers are maintained in their normally projecting relation by the integral portions defining the sides of the rectangular receiving hole. Pivotal or translational movement of the hangers is prevented by the end wall and the wall surface defining the receiving hole.

In its preferred form the rack has an adhesive backing which permits the hanger support to be attached to substantially any suitable surface without the use of screws or other fastening devices. This attachment can be done when a display need arises without any delay or waiting to secure fasteners and/or fastening tools. Once the hanger support is adhered to a support surface, complete assembly of the entire rack is rather simple and requires only the insertion of one of the legs of each of the hangers into their respective holes.

The simplicity and facility of erection of the present display rack makes it an important adjunct to the equipment and merchandise of a jobber or other distributor's representative in selling to a retailer. For example, during a demonstration or after a retailer has decided to display a particular product for sale, the distributor's representative merely takes the present hanger support which is easily and compactly carried in his valise, removes a protective paper covering from the adhesive backing, literally "slaps" it up on the available display surface, inserts the hangers and hangs the merchandise from the hangers.

In one form, the hangers are also usable with an inexpensive support to provide a display tree. In this form, the hangers include grooves which snugly receive wall portions of the support. A first group of hangers are inserted onto the bottom end of the support to form a display tree base. Additional hangers are inserted over the wall portion at the top end of the support and in spaced slots in the support to provide article supporting arms of a display tree which is easily modified to meet any display need.

Accordingly, an object of the present invention is to provide a new and improved display rack which is facilely mounted on almost any available surface and quickly assembled for prominently supporting and displaying articles.

Another object of the present invention is to provide a new and improved display rack assembly wherein a hanger support of the rack assembly is mounted on a wall surface and defines a hanger leg receiving and retaining hole with the wall surface which retaining hole longitudinally receives a tongue-like hanger leg and prevents twisting and any outward movement of the hanger other than longitudinal movement.

Still another object of the present invention is to provide a new and improved display rack assembly which has a very low cost of manufacture and is easily assembled.

A further object of the present invention is to provide a hanger, a plurality of which may be used with a thin wall support member to form a base and article hanging arms of a display tree.

A still further object of the present invention is to provide a new and improved method of making plate-like hanger supports which are easily mounted and used for display purposes and have a very low cost of manufacture.

Other objects and a fuller understanding of the invention may be had by referring to the following description and claims taken in conjunction with the accompanying drawing in which:

FIGURE 1 is a perspective view of a form of the present display device as mounted on a suitable support surface.

FIGURE 2 is a top plan view of a part of the display device of FIGURE 1.

FIGURE 3 is an elevational view, with parts in section, as seen from a plane indicated by the line 3—3 in FIGURE 2.

FIGURE 4 is a top plan view of part of an alternate mounting of the display device of FIGURE 1.

FIGURE 5 is an elevational view, with portions broken away and shown in section, of an alternate form of the display device of the present invention.

FIGURE 6 is a perspective view of another alternate form of the display device of the present invention.

Referring now to the drawing, a preferred form of the article display rack assembly of the present invention is designated generally by the reference character 11. The rack 11 comprises a hanger mounting and supporting member 12 and a plurality of hook or article supporting

hanger members 13 removably carried by the hanger support 12.

The hanger support 12 is an elongated plate-like member and is preferably made of an extrudible material, for example, a synthetic plastic material. The hanger support 12 includes generally planar back portions 14 and hanger holding and supporting portions 15 projecting perpendicularly from the plane of the back portions 14.

The projecting hanger holding portions 15 each include spaced, parallel side walls 21, 22 and an end wall 23 which together define an elongated, rectangular channel extending the width of the supporting plate and disposed perpendicularly to the plane of the back portions 14. Surfaces of channel defining side and end walls 21–23 and a part of a wall surface 18 which is between the side walls 21, 22 and opposite the end wall 23 form and define a hanger receiving and retaining passageway 24. The projecting hanger holding portions 15 and the back portions 14 are integrally formed in the hanger support.

A resilient layer 16 of foam rubber or other suitable material is provided as a backing on the hanger support 12. An adhesive layer 17 is provided on the rubber layer 16 for securing the hanger support 12 to the surface 18 of a wall or other support 19. The adhesive 17 is of a "contact" type which is normally covered by a protective paper covering (not shown) prior to use. The hanger support 12 is mounted by removing the paper covering and by pressing the adhesive coated resilient layer against the wall surface 18. When the hanger support 12 is secured to the wall surface, the wall surface holds and maintains the hanger support rigid.

As shown best in FIGURE 3, the hangers 13 each include an elongated tongue portion 25, a brace portion 26, and an elongated finger portion 27 extending at an angle to the tongue and brace portions 25, 26. The brace portion 26 extends parallel to the tongue portion 27 and defines a support receiving groove 28 with the tongue portion 27. The support receiving groove 28 is sized to receive the end wall 23 of the hanger support 12. The receiving groove 28 extends from an open end to an end which is closed by an intermediate hanger portion 29 which connects the tongue and brace portions 25, 26 respectively.

The finger portion 27 extends from the brace portion 26 near the open end of the groove 28 and forms an acute angle relative to the brace and tongue portions. The length of the finger portion 27 is several times the length of the tongue and brace portions 25, 26 so as to be adequate in length for article hanging purposes. As shown in FIGURE 5, the finger portion 27 extends beyond an imaginary line defined by a surface 30 of the rectangular intermediate portion 29. The surface 30 is substantially perpendicular to the groove 28.

The lateral dimensions of the tongue, brace and finger portions 25–27 are much greater than their thickness so as to give them the appearance of thin, flat members which are rectangular in cross section. The hangers 13 are made of a flexible material, preferably a synthetic plastic material. The finger portions 27 with their rectangular cross section, are rigid in directions parallel to the planes defined by their widest surfaces so as to resist bending from forces parallel to those planes and are flexible in directions parallel to the planes defined by their smallest surfaces so as to yield to side forces. The finger portion 27 is relatively more flexible than the tongue portion 25.

An alternate structure for mounting the rack assembly is shown in FIGURE 4. Here the back portions 14 include apertures for receiving screws or other fastening devices 31 and provide a means for mounting the rack assembly on the wall 19 or other support.

To complete assembly of the display rack 11 the hanger 12 is secured to the wall surface 18 as has been described to provide a plurality of the substantially rectangular passageways 24. The hangers 13 are mounted on the hanger support 12 by inserting their tongue portions 25 into the tongue-receiving passageways 24 so that the finger portions 27 extend away from the wall 19.

The articles to be displayed or stored are hung on the projecting fingers 27. The angle of the finger portions 27 points them up above a horizontal plane and the articles hung on the fingers most often will slide as close as possible to the hanger support 12 and thus produce a minimum possible torque on the tongue portions 25 within the supporting portions 15.

The side walls 21, 22 and the end wall 23 maintain the hangers projecting perpendicularly relative to the hanger support 12 and prevent twisting and lateral movement of the tongue portions. The wall surface between the side walls 21, 22 abuts the rear edge of the tongue portion 25 and prevents the tongue portion 25 from pivoting out of the rectangular channel of the hanger supporting portions 15 when an article is hung on a hanger 13. The frictional engagement of the side walls 21, 22 against the tongue portion 25 also helps to prevent such pivotal movement. The brace portion 26 engages the outside surface of the end wall 23 and further assists in preventing rotation of the hanger 13 in its own plane.

The plate-like hanger supports 12 are preferably made by extruding an elongated sheet having the hook supporting portions 15 as longitudinally extending integral ribs and then transversely cutting the sheet at spaced intervals equal to the desired width of the hanger support 12. The resilient layer 16, the adhesive 17, and its protective paper covering are preferably applied to the back of the elongated sheet prior to cutting it into individual hanger supports. The back portions 14 and the walls 21, 23 of the hanger supporting portions 15 are extruded having preferably a uniform thickness. The hangers 13 may be made by injection molding, stamping them from a thin planar sheet of plastic material, or by any other suitable method.

The rack asesmbly as thus made forms an inexpensive rack assembly which is simple to make and assemble for article display purposes. The hangers 13 are easily inserted and removed and the entire assembly occupies a minimum of space when not in use. The finger portion 27 of each hanger 13 is very flexible in a side or lateral direction when mounted and yields readily to lateral or side forces as when someone brushes against it. Thus, one brushing against the hangers or even falling against them is not scraped and injured. The side walls 21, 22 retain each tongue portion 25 against twisting and, after a side force is removed, cause the finger portions 27 to return to their perpendicularly projecting positions.

Referring to FIGURE 5, several of the hangers 13 are shown with a post support 41 as forming an article display tree 40. The post support 41 is preferably a cylinder of fibrous material, as for example, cardboard, or other suitable material of a thickness which will be snugly received by the groove 28. A plurality of the hangers 13 are positioned on one end 42 of the post support 41 by sliding the end of the post support into the groove 28 to form a display tree base. For a cylinder or other tubular tree post support, three of such hangers 13 may be used to form a tripod base. A plurality of the hangers 13 are positioned at a top end 43 of the post support 41 and in receiving slots 44. One or more circumferential rows of the slots 44 may be provided for the hangers 13 depending on the length of the post support 41 and the number of article supporting hangers needed. The hangers 13 in adjacent rows are staggered to provide an optimum of article hanging space. The finger portions 27 of the hangers 13 at the top end 43 and in the slots 44 extend upwardly at an angle which is equal to and opposite from the angle of the hangers forming the tree base.

Referring to FIGURE 6, two of the hangers 13 are secured to the bottom end 46 of a sheet 47 of cardboard or other suitable material to provide legs for an alternate display device 50. The sheet 47 has slots 48, 49 for receiving the tongue portions 25 of hangers 13 so that the

grooves 28 slip over the sheet 47 to provide article hanging fingers on the display device 50.

In still another form, the display device 50 may be made without the slots 48, 49 in the upper portions of the cardboard sheet 47. The sheet 47 has slots only for the hangers 13 secured to the bottom of the sheet 47 to provide legs for the sheet 47. The sheet 47 and the bottom leg forming hangers 13 form an easel for bearing and displaying advertising or other indicia printed on the sheet 47.

Some of the advantages of the article display tree 40 and the display easel 50 formed by the present invention are their facility of erection and their adaptibility to a variety of display formations. In addition, they have a very low cost of manufacture and are easily dismantled for storage and carrying. The display tree 40 can be varied in height and width by modifying the tree post support, and hangers may be placed anywhere on the post support by slotting the post support at the desired locations.

In summary, the present invention is believed to comprise essentially a display device having a hanger support member and a plurality of hanger members wherein one of the members has a receiving groove and the other member has a portion which interfits with the groove to dispose the hanger members in outwardly extending, article hanging positions. In one form the device includes a hanger support member having mounting back portions and channel-shaped hanger support portions projecting from adjacent back portions, the projecting channel-shaped portions and the support surface define an elongated rectangular receiving passageway disposed perpendicular to the support surface with its longitudinal axis parallel to the support surface, and a hanger member having a tongue portion which is snugly received in the rectangular receiving passageway and a finger portion projecting perpendicularly from the support surface. In another form the invention contemplates that the hanger support member and the hanger members form a display device wherein the hanger members are used to form both a base and article hanging arms.

Although the invention has been described in its preferred form with a certain degree of particularity, it is understood that the present disclosure of the preferred form has been made only by way of example and that numerous changes in the details of construction and the combination and arrangement of parts may be resorted to without departing from the spirit and the scope of the invention as hereinafter claimed.

What is claimed is:

1. A display rack for securement to a support wall for carrying a plurality of articles, said display rack comprising:

(a) an integral plastic elongated hanger support member having hanger supporting portions and substantially planar mounting portions;

(b) said planar portions including means for mounting said hanger member on the support wall;

(c) each of said hanger supporting portions having wall surfaces including parallel side wall surfaces defining an elongated, hanger receiving channel extending longitudinally for the width of the support member and open at a back of the support member which faces the support wall when the hanger support member is mounted on said wall, said side wall surface and a surface of the support wall between said side wall surfaces forming a rectangular hanger receiving and retaining passageway;

(d) a plurality of hanger members each comprising an elongated, flat plastic element of uniform thickness and having a tongue portion and a finger portion, the width of the hanger member being substantially more than its thickness so that the hanger is relatively rigid in a plane parallel to its widest surfaces and relatively flexible in directions lateral to said plane;

(e) said tongue portions projecting away from said finger portion in said plane;

(f) said tonugue portion being sized to be longitudinally received in said rectangular receiving passageway and being disposed in a rectangular receiving passageway of a hanger supporting portion so that the finger portion projects away from the wall surface; and

(g) said finger portion being substantially greater in length than said tongue portion and being relatively flexible in directions lateral to its projection from said wall surface.

2. A display rack for securement to a supporting wall surface to carry a plurality of articles, said display rack comprising:

(a) an integral, plastic elongated plate-like hanger support member having substantially planar mounting portions and projecting hanger supporting portions;

(b) said planar portions including means for mounting said support member on the supporting wall surface;

(c) each of said hanger supporting portions having elongated side walls integrally connected to adjacent planar portions respectively and an end wall connecting said side walls, said side walls and said end walls defining a rectangular hanger receiving channel extending away from the plane of the planar portions, and a part of the supporting wall surface betwen said side walls and and oposite said end wall forming a back retaining wall surface for said supporting portions when said hanger support members is mounted on the supporting wall surface;

(d) a plurality of plastic hanger members each having a tongue portion and a finger portion;

(e) said tongue portion comprising a flat, thin elongated element of uniform thickness sized to be snugly received between the side walls of said hanger supporting portion, said finger portion extending away from the planar portion when said tongue portion is disposed in said hanger supporting portions; and,

(f) the longitudinal edges of the tongue portion engaging said end wall and said retaining wall surface whereby said wall surface prevents rotational movement of said tongue portion in said hanger receiving channel when an article is hung on said finger portion.

3. The combination of claim 2 wherein the finger and tongue portions of the hanger member are co-planar and have a uniform thickness and said finger portion is at an angle to said tongue portion.

4. The combination of claim 3 wherein said hanger support member is an extruded plastic member.

5. A display device comprising:

(a) an integral, plastic elongated hanger support member having hanger supporting portions and substantially planar mounting portions;

(b) said planar portions including means for mounting said support member on a supporting wall surface;

(c) each of said hanger supporting portions having walls including an end wall defining an elongated, hanger receiving channel extending longitudinally for the width of the hanger support member;

(d) a plurality of plastic hanger members each comprising an elongated, flat element of substantially uniform thickness, each of said hanger members having a tongue portion, a spaced, parallel brace portion, and a finger portion extending from said tongue and brace portions, the space between said tongue and brace portions forming a support end wall receiving groove for snugly receiving the end wall when said tongue portion is disposed in said hanger receiving channel;

(e) each of said hanger members having its tongue

portion sized to be longitudinally received in said hanger receiving channel and disposed in a hanger receiving channel so that its finger portion extends away from the supporting wall surface when said support member is mounted on said supporting wall surface and so that said brace portion engages the outside surface of said end wall; and

(f) surfaces of said tongue portion engaging said end wall and the supporting wall surface and a surface of said brace portion engaging said end wall whereby rotation of the hanger member in the plane of the hanger member is resisted by the engaging surfaces of the tongue and brace portions.

6. A display device comprising:

(a) a support member including thin wall portions;

(b) a plurality of hanger members each having a first portion defining an end wall receiving groove and an elongated portion extending from the groove defining portion to form a support finger, the groove of each of said hanger members being sized to snugly receive a thin wall portion of said support member;

(c) a group of said hanger members being connected to a base end of said support member by the insertion of thin wall portions of said support member in said grooves with said support finger portions extending away from the support member to form a set of base legs for the display device; and,

(d) at least one other hanger member being connected to said support member away from said one end by the insertion of its receiving groove over another thin wall portion of the support member.

7. The device of claim 6 including, in combination:

(e) the elongated portion of each of said hanger members extending at an angle to said receiving groove; and

(f) said one other hanger member being connected to said support member with its elongated portion extending away from said support member in a direction opposite from that of said group of hanger members.

8. The device of claim 7 wherein said support member is a tube, and said group of hanger members have their groves inserted over one end of the tube to form a base, a second group of the hanger members have their grooves inserted over the other end of the tube to form article supporting arms, and still additional hanger members have their grooves inserted over the thin wall portions of the tube through slots in the tube wall to form additional supporting arms.

9. The device of claim 6 wherein said hanger members in the slots are arranged in a circumferential row and are staggered in relation to said second group of hanger members.

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