

[54] POINT OF PURCHASE DISPLAY AND STORAGE RACK

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[58] Field of Search ..... 229/49, 37 R; 312/116, 312/126, 128, 114, 258, 259, 263; 248/174; 211/74, 75, 135, 149, 148

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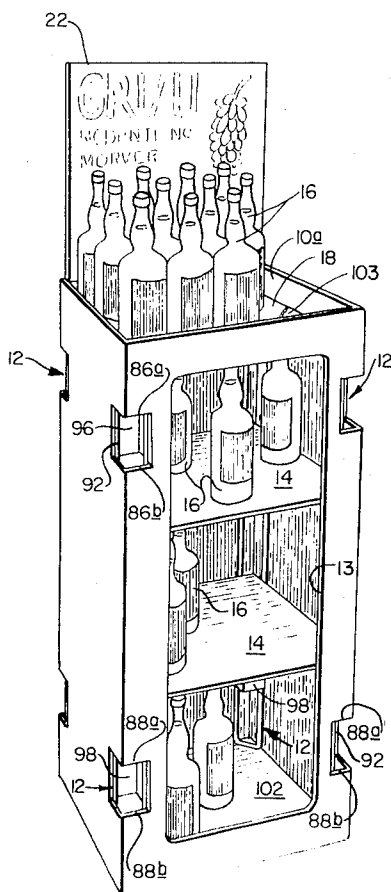
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[57] **ABSTRACT**

A rack which both displays and stores a number of relatively heavy objects such as bottles or cans at the point of purchase is composed of a relatively large, vertical, corrugated cardboard tube having a polygonal cross-section. The tube wall has at least one relatively large vertical display and dispensing window cutout. An incompressible formed wire member extending the length of the tube is secured to each corner of the tube to rigidify and stiffen the tube. Each such member carries one or more brackets which project into the tube, corresponding brackets on each member defining a horizontal plane. Shelves placed inside the tube and resting on the brackets support the merchandise at different levels inside the tube so that the merchandise is both visible and accessible to the purchaser through the window cutout.

**11 Claims, 3 Drawing Figures**



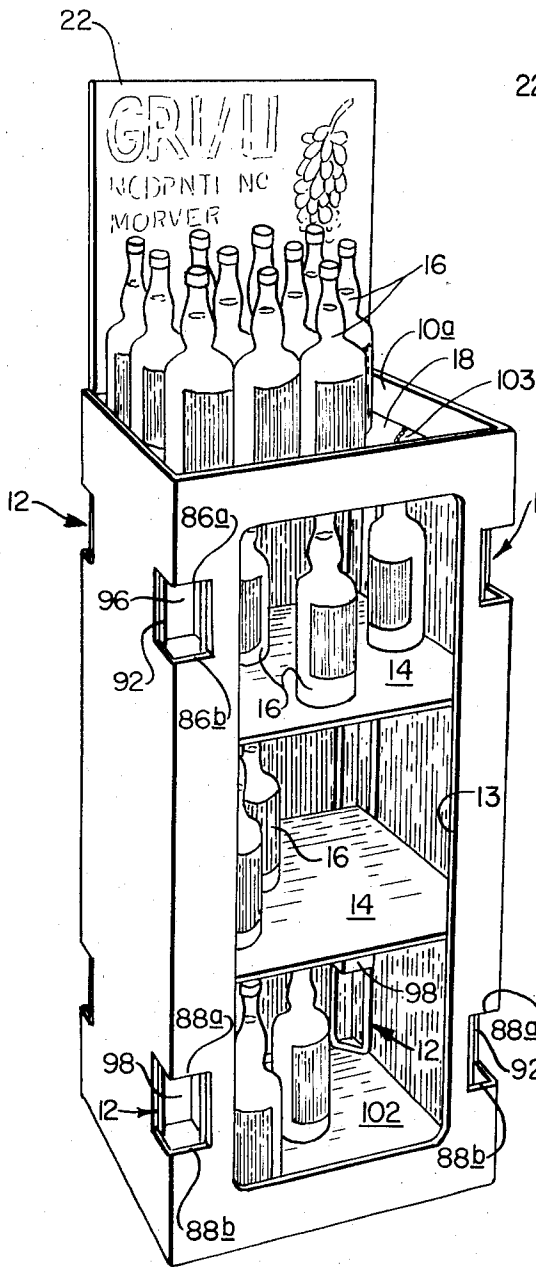


FIG. 1

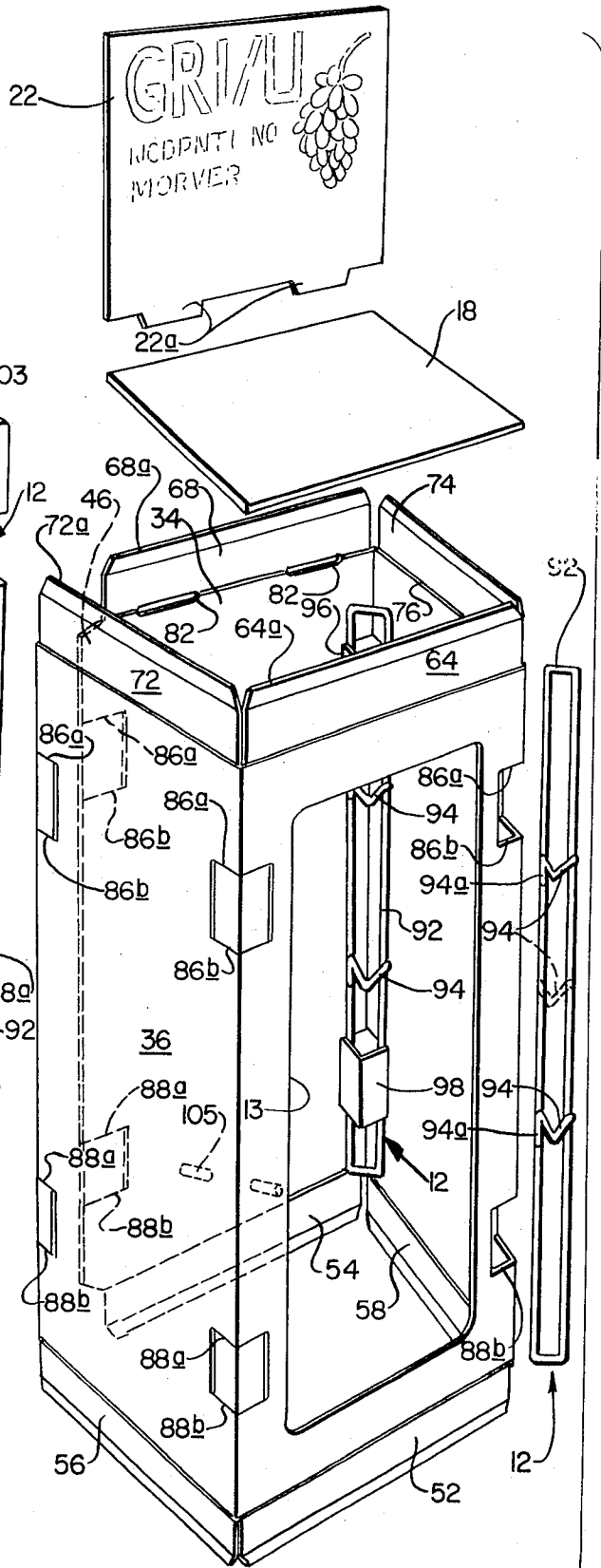


FIG. 2

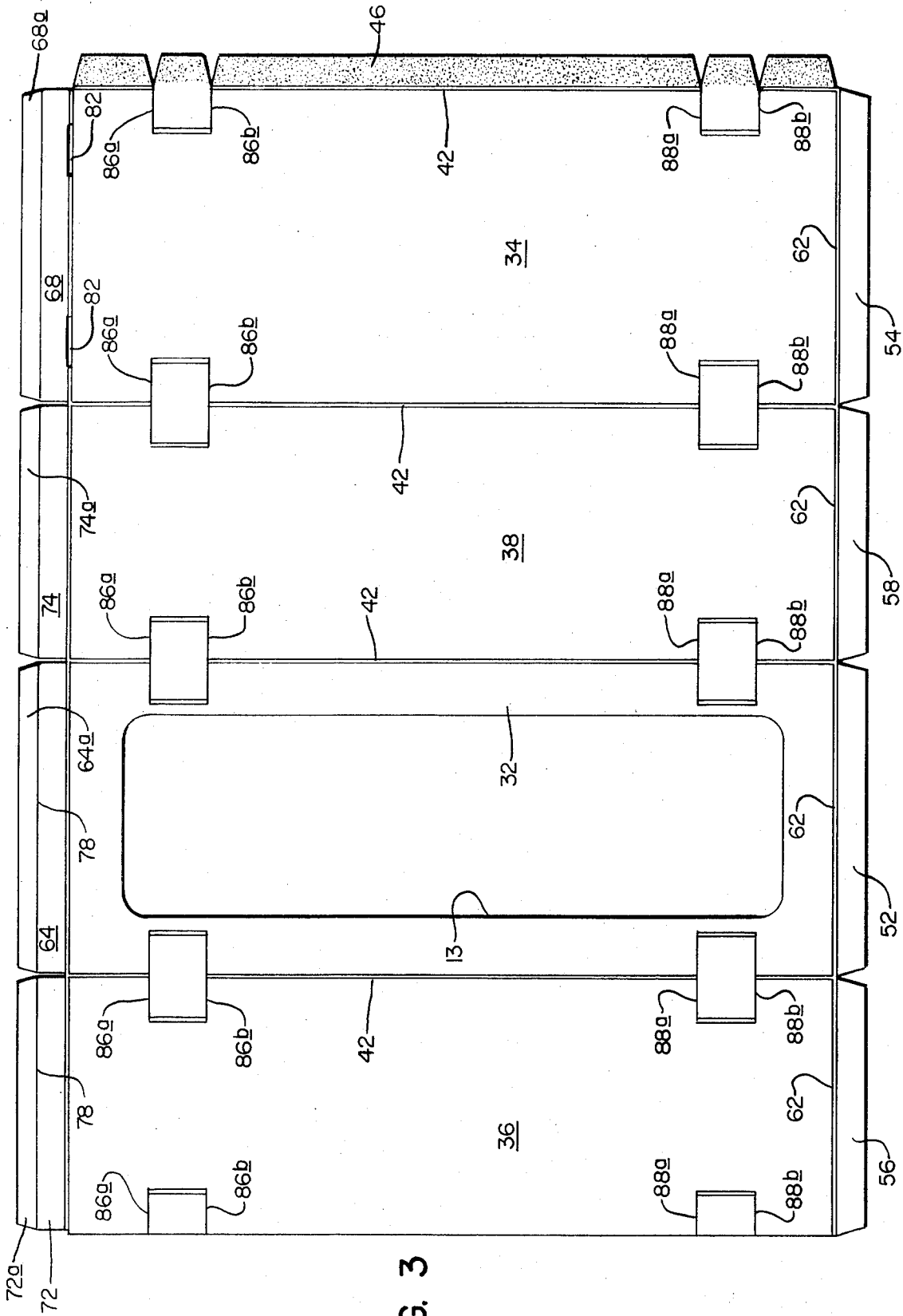


FIG. 3

## POINT OF PURCHASE DISPLAY AND STORAGE RACK

### BACKGROUND OF THE INVENTION

This invention relates to a point of purchase display and storage rack. It relates more particularly to an advertising device for attractively displaying even relatively large and heavy bottles, cans, produce and other merchandise while at the same time, serving as a rack for storing a relatively large quantity of the merchandise.

The so-called point of purchase or "drop" displays are used in supermarkets and other retail outlets to display new products or products on sale or in other situations where it is desired to give special emphasis to certain merchandise in the store. For example, they are used to a great extent in promoting the sale of soft and fruit drinks, wines and spirits.

Conventionally, these displays consist simply of a decorated table or platform on which a supply of the merchandise is placed. The prior displays have not been entirely satisfactory because they only hold a limited number of containers, with the result that the supply is quickly exhausted. Thus the displays often stand empty so that they no longer serve their purpose.

Some attempts have been made to rectify this by constructing the display so that it has a variety of shelf arrangements which can contain a relatively large supply of merchandise. However, these units tend to be quite expensive particularly if they have to display large containers such as 12-ounce bottles of tonic or large cans of fruit juice, etc. This is because in order to support the weight involved, which may be as much as 250 lbs., it has been found necessary to construct such displays of wood or fibreboard. Consequently the materials and fabrication costs are quite high.

As a practical matter then, for cost reasons, attractive point of purchase displays are not used as widely as they might be. Rather, the industry has resorted to make-shift arrangements. For example, some displays consist of a number of cartons of tonic stacked one upon the other. A number of tonic bottles are placed on the top of the stack and holes are cut in the sides of the cartons in the stack, exposing the contents of the cartons. Thus customers can either take the bottles from the top of the stack or withdraw them from one or another of the cartons in the stack. This type of homemade display is not very attractive to begin with. Also, there is a relatively great danger of bottles or containers falling on the floor.

Also, in that type of arrangement, the containers themselves provide load bearing support for other containers above them. Thus, if a large number of containers are withdrawn from one carton midway up the stack, there may be insufficient support left for the containers uppermost in the stack, with the result that the nearly empty carton collapses and topples the uppermost cartons and their contents on the floor.

### SUMMARY OF THE INVENTION

Accordingly, this invention aims to provide a point of purchase display and storage rack which is relatively inexpensive to make.

Another object of the invention is to provide a rack of this type which is quite easily erected on the premises.

A still further object of the invention is to provide a rack for displaying and dispensing a relatively large number of the largest containers of fruit juice, wine, spirits, etc. presently on the market.

Still another object of the invention is to provide a rack of this type which is easily adapted to display and dispense different size merchandise.

A further object of the invention is to provide a rack of the above type which is easily modified to advertise different products.

Other objects will in part be obvious and will in part appear in hereinafter.

The invention accordingly comprises the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the invention will be indicated in the claims.

Briefly, the present point of purchase display and storage rack consists of a relatively large vertical tube having a polygonal cross-section. The tube is designed to stand on end on the floor and its wall has a relatively large front vertical window providing access to the interior of the tube.

Relatively stiff legs whose length corresponds to that of the tube are secured at each corner of the tube to rigidify it and lend structural support. These legs may take a variety of forms, but preferably each leg is comprised of an elongated rectangular loop of formed steel wire.

A pair of vertically spaced lateral slits are formed near the top and bottom of the tube at each corner thereof and the material between each pair of slits is pressed in toward the center of the tube, thereby forming a pair of vertically spaced bands or straps projecting into the tube. The wire loop is shaped so that when properly positioned at a corner of the tube, it can be slid down between the corner of the tube and the pair of bands at that corner so that the loop is securely retained at the corner of the tube. A loop is similarly secured at each corner of the tube and the loops are retained against lengthwise movement by inwardly folded flaps at the ends of the tube.

Each leg carries a vertical series of brackets which project in toward the center of the tube. Corresponding brackets on each leg define a horizontal plane and each set of corresponding brackets supports a shelf within the tube. The positions of the brackets on the wire loops define the spacing between the shelves in the display. Thus, merchandise positioned on the shelves within the tube is framed in the window and is visible and accessible to the purchaser.

An additional shelf closing off the top of the tube serves as a support to display more merchandise and if desired, a placard or other advertising device can be attached to the top of the tube behind the merchandise thereon to promote the product or carry an appropriate message to the customer.

The subject rack is made of relatively inexpensive materials, to wit, corrugated cardboard for the most part, formed steel, wire and some plywood, and although it employs no nails, screws, or other such fastenings, it is quite sturdy and well able to support a relatively large number of the largest containers of fruit juice, wine, spirits, beer etc. presently available to the public. Thus, it does not have to be refilled very often and with reasonable care, there is little chance that it will remain empty for any appreciable period of time.

Also, because it is made of low cost materials, it is quite inexpensive to mass produce. Furthermore, it is easily installed and, in fact, it may be erected and taken down to promote different products at different times. Consequently it should be a very effective and desirable display device.

#### BRIEF DESCRIPTION OF THE DRAWINGS

For a fuller understanding of the nature and objects of the invention, reference should be had to the following detailed description taken in connection with the accompanying drawings in which:

FIG. 1 is a perspective view of a point of purchase display and storage rack embodying the features of this invention.

FIG. 2 is an exploded perspective view showing the subject rack in a partially erected condition, and

FIG. 3 is a top plan view of the corrugated cardboard blank comprising the tubular portion of the FIG. 1 rack.

#### DESCRIPTION OF THE PREFERRED EMBODIMENT

Turning now to FIG. 1 of the drawings, the subject rack is comprised of a relatively large upstanding tube 10 made of corrugated cardboard or other such relatively stiff, inexpensive paper or plastic sheet material. In the illustrated embodiment, tube 10 has a generally square cross-section. However, it should be understood that the tube may have a cross-section which is any one of a number of polygonal shapes such as triangular, pentagonal, etc. A generally rectangular window 13 is formed in the front wall of the tube. The window extends almost the entire length of the tube.

A series of legs shown generally at 12 are situated at the corners of tube 10. Legs 12 are coextensive with the tube and are secured to the tube to lend structural support to the rack. These legs 12 will be described in more detail later.

Legs 12 support one or more rectangular shelves 14 spaced one above the other within tube 10. Shelves 14 are made of plywood or other similar rigid inexpensive sheet material. They in turn support a number of product containers 16. The number and spacing of shelves 14 may vary depending upon the size of the containers 16.

An additional shelf 18 which is recessed into the upper end 10a of tube 10 serves to support an additional supply of container 16. Since the shelf is recessed into the tube, the end 10a forms a wall which retains the containers on the shelf. If desired, an upstanding placard 22 may be secured at the top of the tube at the side opposite the window 13 to display an advertisement or other consumer message.

Turning now to FIG. 3, tube 10 is formed from a single blank of corrugated cardboard. The blank consists of a front panel 32, a rear panel 34 and a pair of side panels, 36 and 38, all of the panels being connected together along vertical fold lines, 42. The free side edge of the rear panel 34 is connected along a fold line 42 to a glue flap 46 which is covered with a suitable adhesive so that it can be adhered to the free side edge of the side panel 36.

A series of bottom flaps 52, 54, 56 and 58 are connected along fold lines 62 to the bottom edges of panels 32, 34, 36 and 38 respectively. Also, top flaps 64, 68, 72 and 74 are connected along fold lines 76 to the top

edges of these same panels and these flaps are in turn connected via fold lines 78 to flap extensions 64a, 68a, 72a and 74a respectively.

Spaced-apart lateral slots 82 are formed along fold line 76 in panel 34. The slots are arranged to receive correspondingly spaced tabs 22a depending from placard 22 (FIG. 2) when the rack is erected with the flap 68 folded down as shown in FIG. 1.

Still referring to FIG. 3 a pair of vertically spaced, lateral slits 86a and 86b are centered on each fold line 42 near the top of the blank just below fold line 76. The slits 86a and 86b at the side edges of the blank are half the length of the other slits 86a and 86b so that when the carton is made up with the glue flap 46 adhered to panel 36, those two pairs of slits cooperate to form a pair of full sized slits. A similar pair of spaced lateral slits 88a and 88b are formed at fold lines 42 near the bottom of the blank just above fold lines 62.

At the manufacturer, the blank illustrated in FIG. 3 is folded as shown in FIG. 2 and the glue flap 46 adhered to the free edge of panel 36. The tube 10 can be shipped from the manufacturer to the user in flat knocked down condition packed in a corrugated folder together with its various components so that it occupies a minimum amount of space.

Turning now to FIG. 2, each leg 12 is a generally rectangular length of relatively rigid material. For example, the leg can be a long rectangular piece of plywood or plastic. Preferably, however, each leg 12 is comprised of a long rectangular loop 92 of relatively stiff steel wire. One or more laterally extending brackets 94 are secured to loop 92. In a rack with two internal shelves such as shown in FIG. 1, there are two brackets 94 distributed along the length of loop 92. In a rack with a single internal shelf, a single loop 94 is mounted midway along the loop as indicated in dotted lines in FIG. 2. Each bracket consists of a short piece of relatively stiff wire bent into a generally triangular shape with ends 94a bent down at right angles and welded or otherwise secured to the sides of loop 92.

To erect the rack, tube 10 is opened to its rectangular form, the bottom flaps 52, 54, 56 and 58 are folded under the tube and the tube is set on the floor. Next, the tube wall portions between each pair of slits 86a and 86b and 88a and 88b are pushed inward as best seen in FIG. 2 to create upper and lower inwardly-projecting bands or straps 96 and 98 at each corner of tube 10. If desired, these straps 96 and 98 can be formed at the time that the FIG. 3 blank is folded and glued so that the rack can be erected more easily by the user.

A wire loop 92 is now inserted on end through the top of the tube at each corner thereof and slid down between straps 96 and 98 and the tube wall until the bottom end of the loop rests on the inwardly folded bottom flaps as shown in FIG. 2. The inwardly folded straps at each corner define generally triangular spaces which are shaped and sized to accommodate the triangular brackets 94 as the leg 12 is slid into place.

Next, the top flaps 64, 68, 72 and 74 are folded inward so that they lie flush against the inside of the tube end wall 10a as shown in FIG. 1, and the flap extensions 64a, 68a, 72a and 74a are reverse folded so that they more or less project inward toward the longitudinal axis of the tube.

A cardboard sheet 102 of the same size and shape as the tube cross-section is placed flush against the bot-

tom flaps 52, 54, 56 and 58 to finish off the bottom of the rack as shown in FIG. 1. Next the shelves 14 are inserted into the tube through window 13 and positioned so that their corners rest on their respective brackets 94. Then the top shelf 18, which is made of wood or other similar rigid material, is inserted into the tube end 10a and rests on the tops of loops 92. If desired, a cardboard sheet 103 can be positioned flush against shelf 18 to finish off the top of the display rack. That sheet may carry an advertising message or a suggestion which can only be seen when almost all of the containers 16 have been removed from the top of the rack that the rack be refilled. Finally, placard 22 is positioned with its tabs 22a projecting down through slots 82 so any advertising message on the card is clearly visible to customers. The rack can now be filled with merchandise as shown in FIG. 1.

Thus, the display rack can be used to advertise and dispense a number of different products. The only thing that might have to be changed for the different products would be the placard 22 carrying the specific advertising message. Also the subject rack can be taken down easily and stored in a relatively small space so that it can be used over and over as the occasion demands.

Further, even though the rack is made of cardboard and wire for the most part, it is still well able to support a large number of relatively heavy consumer products such as large size bottles of tonic and cans of fruit juice. In fact, the present rack is well able to support in excess of 250 pounds without any danger of collapse.

Since the unit is made of these relatively inexpensive materials, its total cost is not high and, in fact, the cost is far less than that of comparable point of purchase displays presently available. Also, there being no fasteners holding the various parts of the display together, it is easily erected and disassembled, and the problem of missing fittings prevalent in wooden racks is solved. In addition, there are no sharp parts or staples to injure, making this a safe rack for the ultimate user.

While we have specifically illustrated legs 12 as comprised of wire loops, each leg may just as well consist of a long rectangular relatively rigid slat made of wood or plastic. In this case, brackets 94 can be replaced by dowels projecting from the slats. Also comparable means may be employed to retain the legs in place. For example, instead of the straps 96 and 98, pegs shown in dotted lines at 105 (FIG. 2) can be inserted diagonally through suitable openings provided in the tube 10 walls adjacent its corners, with the pegs engaging behind legs 12 more or less as the straps do. Alternatively, wire strands can be inserted through similar holes and passed around behind the legs with the ends of the strands being secured together outside tube 10. Further, a cylindrical tube 10 may be used; but it is not as sturdy as a polygonal one. Also, other changes may be made in the above construction without departing from the scope of the invention. Therefore, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention described herein.

I claim:

1. A point of purchase storage and display rack comprising

- A. a tube made of relatively stiff sheet material,
  - B. a window in the tube,
  - C. a plurality of legs distributed around the tube, each said leg
    1. being relatively rigid, and
    2. extending substantially the entire length of the tube,
  - D. at least one support member secured to each leg, each such member
    1. projecting toward the longitudinal axis of the tube, and
    2. defining with corresponding members on the other legs one or more horizontal planes within the tube, and
  - E. means for securing each leg to the tube wall.
2. The rack defined in claim 1 wherein the tube is made of cardboard and has a polygonal cross-section.
3. The rack defined in claim 1 wherein the legs are comprised of long generally rectangular wire loops.
4. The rack defined in claim 3 wherein the support members are comprised of wire shapes secured to the loops and projecting out at right angles to the loops.
5. The rack defined in claim 1 and further including relatively rigid shelves seated on the support members inside the tube.
6. The rack defined in claim 5 and further including an additional shelf shaped and arranged to fit snugly inside the tube and rest on the tops of the legs so as to close off the top of the tube, and support top exterior display shelf.
7. The rack defined in claim 6 and further including an advertising placard positioned at the top of the tube and means for securing the placard to the tube wall.
8. The rack defined in claim 1 wherein the securing means comprise one or more straps formed in the tube wall by spaced parallel slits extending generally perpendicular to said tube axis, each said leg being engaged between said straps and the tube wall.
9. The rack defined in claim 1 wherein the securing means comprise dowels inserted through the tube wall and extending behind the legs.
10. A point of purchase storage and display rack comprising
- A. a corrugated cardboard tube having a generally polygonal cross-section,
  - B. means defining pairs of spaced-apart, parallel lateral slits at each corner of the tube near the ends of the tube, the tube wall portion between each slit pair being pressed inward toward the longitudinal axis of the tube to define an inwardly projecting strap,
  - C. a series of generally rectangular rigid members co-extensive with the tube, each of said members being positioned at a corner of the tube between the straps at the corner and the tube wall so as to provide relatively rigid legs at the corners of the tube.
  - D. one or more brackets secured to each leg, the brackets on each leg defining with the corresponding brackets on the other legs, one or more generally horizontal planes within the tube,
  - E. one or more shelves positioned within the tube and resting on the brackets and
  - F. a window formed in the tube wall, said window being shaped and arranged to expose objects supported by the shelves within the tube.
11. The rack defined in claim 10 and further including an additional shelf closing off the top of the tube.