Jan. 13, 1959 H. I. SIDES 2,868,391

DISPLAY AND BIN CONTAINER FOR SMALL, PACKAGED ARTICLES SUCH AS GROCERIES AND THE LIKE

Original Filed Feb. 2, 1954

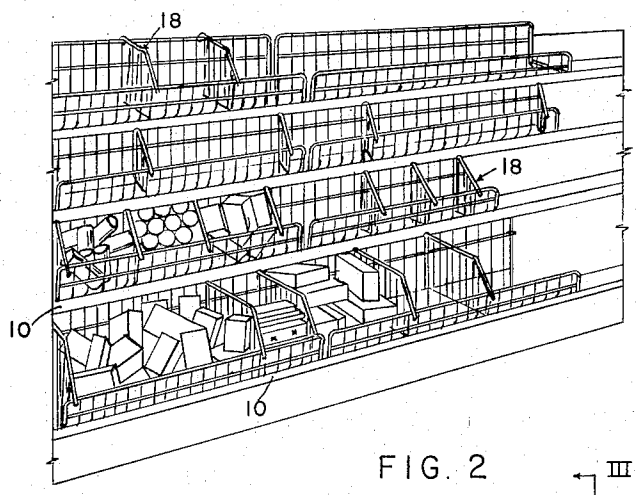


FIG. 1

FIG. 2

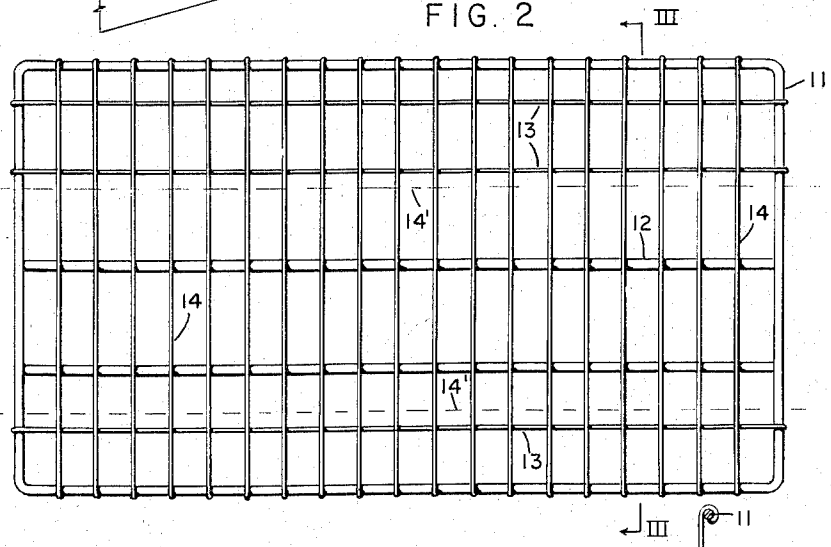


FIG. 3

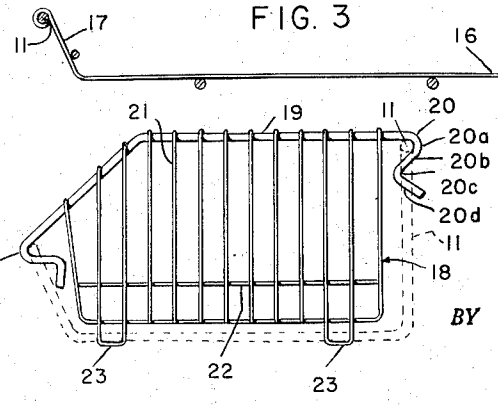


FIG. 4

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United States Patent Office

2,868,391

Patented Jan. 13, 1959

2,868,391

DISPLAY AND BIN CONTAINER FOR SMALL, PACKAGED ARTICLES SUCH AS GROCERIES AND THE LIKE

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Original application February 2, 1954, Serial No. 407,688. Divided and this application January 28, 1957, Serial No. 636,667

4 Claims. (Cl. 211—181)

This invention relates to improved means for storing and displaying merchandise in supermarkets, stores, and the like.

This application is in part a continuation of my application Serial No. 407,688, filed February 2, 1954, now abandoned, entitled Display and Storage Baskets Arrangement.

It has been found that one of the large items of overhead in a supermarket and other stores of this type is the labor involved in stacking of goods on shelves. This expense can be greatly reduced by the use of containers which provide storage bins into which the articles may be dumped. It has furthermore been found that merchandise is actually made more saleable when dumped in helter-skelter or jumbled fashion on a shelf rather than stacked.

Store shelves, however, are of various widths and lengths and therefore to provide standard size containers is impossible. The manufacturer has to substantially "custom make" these containers which requires an extremely large number of tools and dies, and a resultant very heavy inventory which results in high prices for the containers. Furthermore these custom made containers are generally usable only on the shelves for which they were made. It is oftentimes desirable to shift containers from one shelf to another and this is not feasible with these custom made containers except in those isolated instances where the shelves are all of the same width and length. In some cases baskets and other four sided containers have been provided but they have the disadvantage of not being flexible as to size and always result in considerable waste space on the shelf.

Thus the savings in labor cost resulting from dumping the goods into bins have been greatly offset by the cost of the bins or the sacrifice of space or both.

An object of the invention is the provision of containers for goods of this type which may be made of a few standard sizes thereby greatly reducing their cost and which will at the same time eliminate waste space on the shelves.

The above object has been accomplished by providing containers having a base, an upstanding back and front but no end pieces. Instead of end pieces the invention contemplates the use of a plurality of dividers adapted to be clamped over the top of the front and back of the container at any place along the containers and to extend below the bottom of the container so that the clamp portions of the divider and the lower ends thereof act as stop members to prevent substantial lateral movement of the dividers. Preferably the containers and dividers are made of wire but can be made of other material.

These containers may be of three or four lengths and a like number of widths and are thereby adapted to fit onto substantially all existing store shelves or counters. These shelves normally run from ten to twenty inches in width but are of lengths varying from a few feet to fifty or one hundred feet. The storekeeper, by buying the required number of feet of containers of the required

width and of various lengths, can normally fit each of his shelves with these containers by placing the containers end to end to provide a continuous bin on his shelves. He is then in a position, by using the dividers, to provide a plurality of bins of the size he wants. As the containers have no end pieces, the dividers may be placed at any intermediate point of a container and the actual ends of adjacent containers may be intermediate the ends of each such pin. In fact, in actual practice the dividers are rarely at the ends of the containers except at the outer edge of the end container on each shelf. Furthermore the sizes of the bins may be readily changed by merely removing the dividers to other positions on the shelf. Additionally the containers may be moved from shelf to shelf as the needs of the store dictate.

Another feature of the invention is the fact that these containers may nest within each other which greatly facilitates packing, shipping and storage expenses.

Another object of the invention is to provide a clamp for the divider which is adapted to be sprung over the top edge of the back or front, or both, of the container and which will then automatically spring into place to act as a stop member to prevent substantial lateral movement of the divider.

Other and further features and objects of the invention will be readily apparent from the following description and drawings, in which:

Figure 1 is a perspective view of a shelf arrangement equipped with applicant's display and storage containers;

Figure 2 is a view of one form of flat wire formation prior to forming thereof into a container;

Figure 3 is a sectional view on the line III—III of Figure 2, after the flat wire arrangement of Figure 2 has been bent along the dotted lines shown in Figure 2; and

Figure 4 is a wire partition or divider used for dividing up the containers into bins and showing the container in dotted lines.

While this invention is susceptible of embodiments in many different forms, there is shown in the drawings and will herein be described in detail one specific embodiment, with the understanding that the present disclosure is to be considered as an exemplification of the principles of the invention and is not intended to limit the invention to the embodiment illustrated. The scope of the invention will be pointed out in the appended claims.

Considering the drawings, similar designations referring to similar parts, numeral **9** refers generally to a display arrangement of goods in a supermarket or similar establishment wherein a number of shelves **10** are positioned one above the other, as is usually employed. However, instead of stacking the merchandise in orderly close compacted form, the shelves here are equipped with applicant's removable and adjustable sectional containers, the construction of which will now be described.

Referring to Figures 2, 3 and 4, applicant uses a simple wire arrangement in which a peripheral wire **11** serves as a sturdy frame support for the whole section.

A T-bar **12** spans the whole length of the section. While one such T-bar is shown, applicant normally uses as many as may be necessary depending upon the width of the section, and also upon the character of support to be provided by the bin into which this section will be formed.

Support wires **13**, of any desired gauge, also span the length of the section to provide required strength.

A plurality of wires **14** run from front to back to provide strength as well as to enable the section to hold merchandise, as does a basket, when it is placed in practical use. The flat section is then bent along the dotted lines **14'** with the result that the formation shown in Figure 3 is then produced, with substantially vertical

back portion **15**, bottom **16** and front **17**. It will be noted that the front portion **17** may be inclined outwardly to provide a more pleasing effect as well as a more practical display device.

Section part or divider **18** shown in Figure 4 consists of a relatively heavy top frame wire **19** with the opposite ends thereof **20** formed as S-hooks. Vertical wires **21** and cross strut wire **22** provide a practical sturdy divider and U-shaped or hairpin forms **23** fit between two adjacent wires **14** of the basket or bin section to retain the divider in desired vertical position when the S-hooks are clamped over peripheral frame **11**, when formed as shown in Figure 3. Only one of the hooks, preferably the back hook, needs to be of S-shape, the other may be in the shape of a semi-circle or other formation if desired.

As shown in Figure 4, the S-hook **20** of the divider is curved as shown at **20***a* in an arc of about 180°, this arc being of a size adapted to receive the top rail **11** of the back portion **15**, from which it extends in a straight line **20***b* rearwardly at an angle of about 45° for a distance of about an inch and then is bent sharply, at **20***c*, at an angle of about 90° and extends in the opposite direction in a straight line **20***d* for approximately ½ inch. In placing the divider on the container the front end is first attached thereto by anchoring the hook **20** around the top rail of the front end portion **17**. The divider is so proportioned that the portion **20***d* of the S-hook on the back of the divider will then contact the top rail of the back portion **15**. By pushing down upon the back portion of the divider a camming action results whereby the adjacent portion of the back of the container is forced inwardly by the S-hook until the angle portion **20***c* of the hook slides past the top rail and the hook then springs inwardly to anchor the arcuate part of the hook on the top rail of the back portion (as shown in dotted lines in Figure 4). This hook **20** may be placed between any two of the vertical wires of the back and front portions of the containers. When in position it extends inwardly beyond the plane of the back and front portions whereby to act as stop members preventing lateral movement beyond either of said wires. The hooks cooperate with the portion **23** of the divider (see Figure 4) which extend below the base of the container and also prevent lateral movement of the divider beyond the wires between which the portions **23** extend.

As shown in Figure 1, applicant may position the containers along a shelf (or on the floor if desired) with dividers **18** at any desired points in the section with the result that each shelf is provided with small or large bins of any prescribed capacity.

In the event, for example, it is desired to store large bulk goods, it will be possible merely to place dividers at each end of a shelf with the result that a large bin or storage space is formed. On the other hand, by using a number of dividers close together, as is also shown in Figure 1, it is possible to segregate, in small bins, a large number of different packages or products which it is desired to maintain separate from one another and without regard to where each of the containers terminate.

Also, as is readily seen, the use of applicant's sectional containers enables easy dumping from a carton so that in a matter of minutes, a large number of bins may be filled with unskilled labor and yet produce an effective display.

While these containers are normally positioned on shelves as shown in Figure 1, applicant may readily secure the back portion **15** of his arrangement to a wall or other vertical support, the container structure being heavy enough to support its quota of merchandise even though it may not be resting upon a shelf. When a back wall is used, simple hanging upon hooks, for example, will enable the containers to be positioned virtually anywhere without necessity for a more expensive shelf arrangement, which may not perhaps be available or desirable in some display or storage areas. When so mounted upon a back wall, the dividers act as strengthening elements to provide against buckling or sagging of the containers.

Thus, it will be apparent that applicant has invented a simple, relatively inexpensive, display and storage arrangement which enables him to provide any amount of display space, in bin form. The front and back portions of the containers may be of any desired height and inclination. The dividers may provide small or large bins. The wire structures are rugged yet attractive inasmuch as all parts are normally chromium plated or otherwise suitably finished. When made of wire they will not collect dust and dirt. In effect, a sanitary, good looking and easily mounted arrangement is provided at economical cost.

Further, the sections may be taken down and put up in different locations without loss of investment; and hence may be readily moved about to different display areas as required. Similarly, the bin sizes are rearranged easily, at minimum expense, and with inexperienced help. Furthermore, in shipment and in storage the containers may be closely nested together to occupy a minimum of space. This is of great importance in connection with shipping charges, ease of handling and saving of storage space when not in use. Further, the use of applicant's sections results in complete elimination of waste shelf space as is the case when individual baskets of conventional design are placed side by side with consequent useless space between them.

The foregoing and other features, as shown and described, may readily be employed in the structures described in the specification, but it is obvious that numerous adaptations may be made to take care of different needs. Thus, no limitations are made with respect to the precise arrangements illustrated, and applicant reserves to himself the full protection of the claims, with such equivalents as will occur to those skilled in the art.

I claim:

1. A display and bin container for small packaged articles such as groceries and the like comprising a plurality of container sections placed end to end, each container section consisting only of a base, an upwardly extending back portion, an upwardly extending front portion, and at least one readily removable divider which is adapted to be placed anywhere between the front and the back portions of a section to separate the container into compartments, said divider having means to anchor it in position at any desired location, said container sections and said divider both being of wire construction.

2. The container of claim 1 in which the divider includes wires of greater length than the depth of the container and which extend below the other wires of the divider so that when the divider is placed on the container said longer wires will extend sufficiently below the plane of the base to prevent substantial lateral movement of the divider.

3. The container of claim 1 in which the anchoring means for the divider is provided with an S-shaped member adapted to be forced over the top of the back of the container and to be snapped in place over said back and when in place having a portion extending through the plane of the back to act as a stop member to prevent substantial lateral movement of the divider.

4. In a display and bin arrangement for small packaged articles such as groceries and the like the combination of a plurality of wire construction container members placed end to end, each wire construction container member consisting only of a substantially vertically extending front wall, a substantially vertically extending rear wall spaced from the front wall and a substantially horizontal base connecting said walls; and at least one readily removable divider extending between the front wall and the rear wall and adapted to provide a barrier to separate the members into compartments, said divider

having means for attachment to both the front and rear walls.

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