This invention relates to a new and improved endless dump display bin which is made of molded plastic and contains no parts so that it is capable of being made in any color desired and is impervious to any kind of rust or rot while being strong and light in weight and provided with means for receiving dividers across the same, said dividers being located in certain specific predetermined locations only along the length of the bin.

The bin construction to which the present invention relates is customarily known as a "dump display bin" because of the fact that no attempt is made in the display of the goods to orient the same. Grocery stores ordinarily stack packaged goods one on top of the other in columns, but with the display bin of the present invention this is unnecessary and the cans or other goods desired to be displayed are merely dumped into the bins and the dividers are set to accommodate in general the amount of goods of any one kind desired to be displayed.

The present invention provides an all-plastic molded display bin comprising three main body portions only, i.e., a back wall, a bottom and a front wall, the back and the front walls being unconnected except by the bottom and the bottom being provided with an upward curvature therein which yields under the weight of the goods to be displayed, causing the front wall which is rather short as compared to the back wall to be urged toward the back wall.

Another object of the invention resides in the provision of a display bin as above described made of molded plastic which has certain new and novel rib and reinforcement constructions and including corresponding grooves in the front and the back wall for the sliding reception of dividers, these grooves being spaced apart a certain predetermined distance in order to provide receptacles for goods of different kinds between dividers, the endless dump display bins being capable of being set in end-to-end relationship along an entire shelf regardless of the length of the shelf, and there may be applied thereto as many dividers as there are receiving and holding means provided for the dividers.

Other objects and advantages of the invention will appear hereafter.

Reference is to be had to the accompanying drawings, in which—

FIG. 1 is a perspective view illustrating the new bin;
FIG. 2 is a plan view thereof;
FIG. 3 is a view in front elevation;
FIG. 4 is an end view thereof, and
FIG. 5 is an enlarged view on line 5—5 of FIG. 2.

In carrying out the present invention, it will be seen that the length of plastic dump display bin shown as for instance in FIG. 5 is of a predetermined desired length.

A three foot length is convenient as such a length will ordinarily accommodate any length of shelf in multiples but obviously the same can be made in any lengths, the bins being completely open at their ends and thus capable of being aligned end-to-end along the shelf regardless of the length of the shelf.

The bin comprises in general an upright substantially vertical rear wall 10, an integral bottom 12 extending generally at a right angle thereto but being upwardly curved on an arc as is shown by the reference numeral 14 in FIG. 4. At the other edge of the bottom 12 there is provided an angularly disposed relatively short front wall 16, it being understood that these parts comprise the entire bin except for the divider to be described and the unit is made in a single piece by any convenient plastic molding method.

The rear wall as well as the front wall is preferably molded on an outline which is indicated at 18, this outline being in the nature of a wavy conformation having horizontal crests which provide for an improved degree of rigidity of the front and back walls. The forward surface of the rear wall 10 is provided with forward flanges 20 which provide a forward vertical straight line conformation 22 (see FIG. 4) and this strengthens the wall 10 and also allows for an indented upright groove construction 24 which extends upwardly into a bead or folded-over portion 26 to finish off the edge of the wall 10.

The forward wall 16 is provided with a corresponding or complementary groove construction also at the forward surface thereof as shown in FIGS. 1 and 4 by the reference numeral 28. These flanges which are integrally molded not only provide for a strengthening of the wall but also allow for the provision of the grooves 30 which extend along the rear surface of the front wall 16.

Also if desired a pair of spaced parallel gussets indicated at 32 may be provided at each side of each groove 24 in the forward surface of the rear wall 10 at its junction with the bottom, and corresponding gussets 34 may be provided at the junction of the front wall with the bottom. These gussets form an extension effect of groove 24 and 30.

The divider indicated in FIG. 4 at 36 has a rear edge inextendable in any of grooves 24 and between each pair of closely adjacent gussets 32, to extend across the bin with its forward edge located in a selected groove of the front wall opening to the selected groove 24 and between gussets 34. The dividers 36 may be of any shape or construction as long as they conform to the grooves 24 and 30 and also the dividers may be ribbed to provide for additional stiffness as may be desired or convenient.

The floor 12 is preferably ribbed and grooved as shown in FIGS. 1, 2 and 5 to provide additional strength therefor, these grooves and ribs being illustrated by the reference numeral 38, dividing the floor into squares or rectangles. This increases the rigidity of the floor but at the same time allows for flexibility of the concave bottom causing front and rear walls to tend to approach each other slightly under the weight of the goods in the bin to more closely engage and grip the various dividers 36.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but what I claim is:

1. A plastic endless dump display bin comprising a rear wall, a front wall and a bottom, the walls and bottom being integrally connected, the rear wall having a series of spaced upright grooves in the front surface thereof adjacent the bottom, said grooves facing the front wall, the front wall having a like series of equally spaced upright grooves therein at the rear surface thereof facing the rear wall, and a divider having forward and rear edges selectively received in a groove in the front wall and a corresponding groove in the rear wall and held therein, said grooves being arranged in mutually spaced parallel condition at predetermined intervals along said front and rear walls for the reception of dividers in selected complementary front and rear wall grooves providing display areas of adjustable lengths, the bottom of the display bin being concave at its lower surface so that goods placed in the bin and resting on said bottom tend to straighten the same causing the front and rear walls to be urged toward each other gripping the divider at the opposite edges thereof.

2. The display bin of claim 1 including spaced parallel gussets arranged at either side of each groove between...
the front wall and the bottom for additionally holding the dividers against lateral displacement.

3. The display bin of claim 1 wherein said rear wall is formed on a wave pattern forming strengthening ribs arranged lengthwise thereof.

4. The display bin of claim 1 including longitudinal strengthening ribs along the front wall.

5. The display bin of claim 1 including longitudinal strengthening ribs along the front wall, and flanges extending toward the forward surface of said front wall, each flange accommodating a groove.

6. The display bin of claim 1 including longitudinal strengthening ribs along the front wall, and flanges extending toward the forward surface of said front wall, each flange accommodating a groove, the forwardly extending flanges on the forward surface of the rear wall each accommodating a groove therein.

7. The display bin of claim 1 including criss-crossed grooves and ribs on the bottom.

8. An elongated plastic display bin comprising rear and front walls and a connecting bottom, a divider having front and rear edges, a plurality of means on each wall removably receiving the front and rear edges of the divider, said means being located in predetermined spaced relation along the walls for selective reception of the divider at predetermined points only along the length of the bin, and means to cause said means to grip the divider in a direction transverse of the bin.

References Cited by the Examiner

UNITED STATES PATENTS

2,020,373 11/35 Petzold
2,257,536 9/41 Roycroft
3,021,186 2/62 Immermann
3,112,143 11/63 Zacharias
3,122,238 2/64 Brunette
3,123,118 3/64 Kuyk

FOREIGN PATENTS

340,461 9/59 Switzerland.

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