Feb. 26, 1963 A. R. HILSINGER, JR 3,079,003

RACK SUPPORTING CONTAINERS OF SMALL PARTS

Filed Nov. 9, 1961

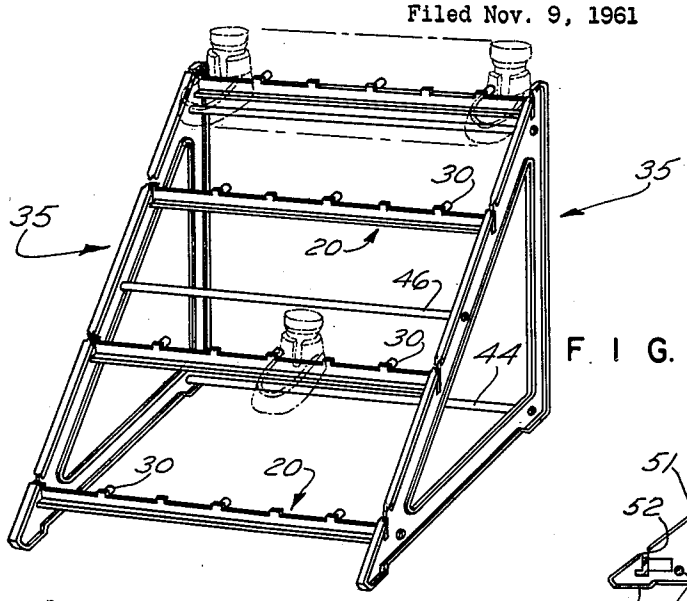


FIG. 1

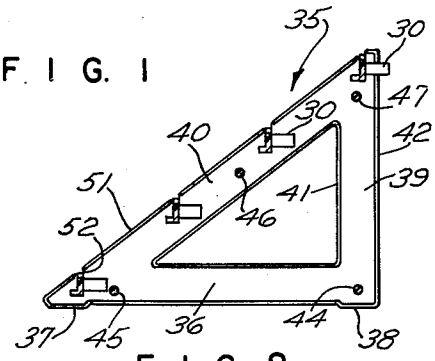


FIG. 2

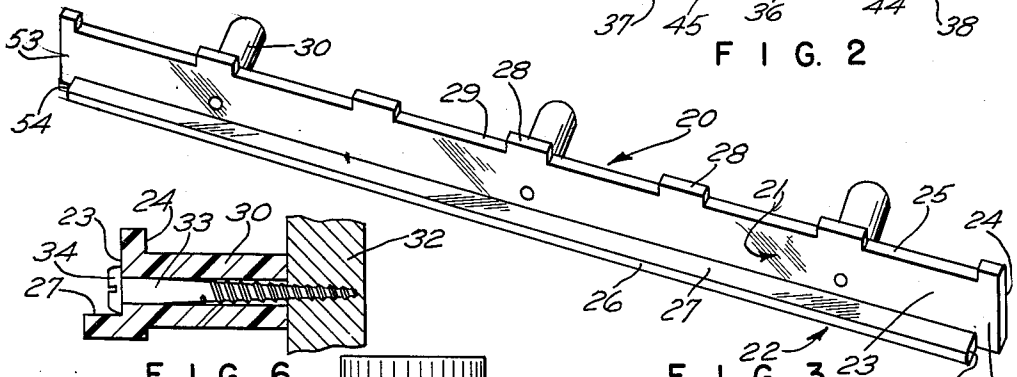


FIG. 3

FIG. 6

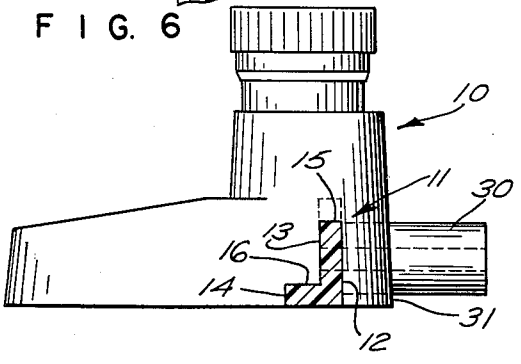


FIG. 5

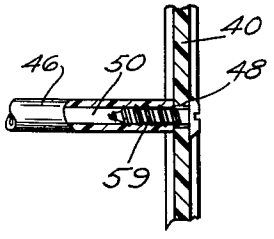


FIG. 4

INVENTOR.

ARTHUR R. HILSINGER, JR.

BY

Barlow & Barlow

ATTORNEYS

United States Patent Office 3,079,003 Patented Feb. 26, 1963

3,079,003

RACK SUPPORTING CONTAINERS OF SMALL PARTS

Arthur R. Hilsinger, Jr., Medfield, Mass., assignor to The Hilsinger Corporation, a corporation of Massachusetts

Filed Nov. 9, 1961, Ser. No. 151,367
5 Claims. (Cl. 211—71)

This invention relates to a rack for supporting containers of small parts, the containers being the subject matter of a co-pending application, Serial No. 120,815, filed May 5, 1961, assigned to the same interests.

One of the objects of this invention is to provide a means of supporting a small parts container in a position which will be readily accessible to the user of various small parts and yet which will support a large number of such containers at one location.

Another object of this invention is to support the container of small parts either from a vertical wall or from some rack which will support them.

Another object of the invention is to provide for a cooperation between the shaping of the support and the shaping of the container so that the parts may readily fit together for assembly.

Another object of the invention is to provide a rack which may be transported in knockdown form and which may be assembled to provide the support for the containers.

With these and other objects in view, the invention consists of certain novel features of construction as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings:

FIG. 1 is a perspective view of a rack showing the support for a plurality of containers, some of which are illustrated in phantom in position but most of these are removed from the rack to better show the construction of the rack;

FIG. 2 is a sectional view of the rack;

FIG. 3 is a perspective view of the bar which supports the containers;

FIG. 4 is a sectional view illustrating one end of the rack and its associated cross rod;

FIG. 5 is a side elevation of one of the containers showing in cross section the bar which supports it; and

FIG. 6 is a sectional view of one of the bars attached to a wall to provide a mounting therefor.

In proceeding with this invention, I have provided a bar of an L shape cross section and a container recessed so as to fit onto the bar. The container contacts the bar along the top of the bar and along both back and front vertical surfaces of the bar and along its L shape lower arm. The bar is then supported in some position so that its back and front faces are free for access of portions of the container on either side thereof, the bar being supported either from a wall or from a stand into which the bar may fit.

With reference to the drawings, 10 designates the container for small parts, a plurality of which containers are to be utilized. The container is recessed as at 11 in generally an L shape having a back surface 12, a front vertical surface 13 and corresponding front surface 14 of the horizontal portion of the L of the recess, while there are top surfaces 15 of the vertical portion of the recess and 16 of the lower L arm of the recess.

This recess corresponds to the shape of the supporting bar which is designated generally 20 and shown in perspective in FIG. 3. This bar is also of L shape having a vertical portion 21 and a horizontal arm 22. It is usually of a plastic construction and is all of one homogeneous piece of material of this L shape. This bar thus

provides a front side 23, a back side 24, a top edge 25 of the vertical portion of the bar, while the L shape portion 22 has a front side 26 and a top side 27. Projecting above the top edge 25 there are a plurality of spaced projections 28 which extend upwardly therefrom so as to leave portions 29 between these projections for the reception of the containers 10 above referred to. The container 10 may be mounted upon the bar 20 by the bar being received within the recess 11 of the container so that the surface 12 will contact the surface 24 along its vertical extent. Surface 13 will contact the surface 23 along its vertical extent; surface 15 will contact the surface 25 along its horizontal extent; the surface 16 will contact the surface 27 along its horizontal extent; and the surface 14 will contact the surface 26 along its vertical extent. Thus the container fits snugly upon the bar and is supported in position between the upstanding projections 28 which prevent it from sliding lengthwise of the bar.

Tubular posts 30 project rearwardly from the rear surface 24 of the bar a distance greater than the distance from the recess surface 12 to the rear edge 31 of the container. This bar may be mounted upon a wall 32 by passing screw 33 through the center of the tubular projection 30 with the threads passing into and holding into the wall 32, the head 34 of the screw being located against the surface 23 which serves to press the bar toward the wall and hold it in position. By reason of the spacing of the bar from the wall, the containers may be readily mounted or removed from the bar as may be readily apparent.

In some cases it is desirous to mount the bar on a stand which will be supported on some horizontal surface, and in this case a pair of stands 35 are provided which are arranged in spaced relation and are of generally triangular shape as may be well seen in FIGS. 1 and 2. Each of these stands comprises a base rail 36 having projecting feet 37 and 38 at either end. There is a vertically extending rail 39 while a diagonal arranged rail 40 joins these two rails. All of these three rails are made of a single piece of material and provided with ribs 41 along the inner edge and 42 along the outer edge of the generally triangular formation so as to stiffen the same against lateral bending. Two of these stands are held in spaced relation by rods 44 and 45 at the lower portion and rods 46 and 47 at its upper portion. These rods are of tubular construction and are aligned with openings 48 in the stand 35. A self-tapping screw 49 passes through one of the openings such as 48 and makes its own threads in the bore 50 of one of the rods such as 46 shown in FIG. 4. The rods are thus secured at each end in abutting relation with the inner surface of the triangular stand so as to hold the two parts in spaced relation.

Along the upper edge 51 of each of the diagonal rails 40, there are provided a plurality of slots 52 which have vertical walls and are about the distance apart of the thickness of the bars from front surface 23 to back surface 24. These bars 20 at their ends have the vertical surfaces 23 and 24 extending throughout their vertical dimension with no L shape projection. Thus the area 53 at the ends of the bars may fit into the slots 52 and be supported thereby. The ends 54 of the L shape portions 22 of the bars abut the inner surface of the triangular stand so as to prevent movement lengthwise of the bars and thus prevent detachment of the portions 53 of the bars from the slots 52 in the stand. I have illustrated the stand as being provided with four pairs of slots so that four of the bars may be mounted therein. It will, of course, be apparent that the number of bars may be varied in accordance with the dimensions of the stand. As each of the bars is capable of supporting six containers of small

parts and there are four such pairs, it will be apparent that twenty-four different containers may be provided in this assembly. Here again the number may be varied depending upon the length of the bars and the number of bars which are utilized.

I claim:

1. A rack for small parts comprising in combination:
(*a*) an elongated bar of L shape cross section,
(*b*) means to mount said bar on a support leaving the bar free on the top, back and front sides thereof,
(*c*) a container having a body with a bottom,
(*d*) said bottom being recessed in an L shape generally corresponding to the size of the cross section shape of the bar to fit onto said bar to be supported thereby.

2. A rack as in claim 1 wherein said bar has a plurality of containers mounted thereon, projections extending laterally from a surface thereof to extend between said containers to limit the sliding movement of the containers lengthwise of the bar.

3. A rack as in claim 1 wherein the means to mount the bar comprises a plurality of tubular projections extending from the back side thereof through which a fastening may be placed.

4. A rack as in claim 1 wherein the means to mount the bar comprises spaced stands each having a diagonal face having corresponding vertical slots with said bars in said slots to support them in spaced relation.

5. A rack as in claim 1 wherein the means to mount the bar comprises spaced stands each having a diagonal face having corresponding vertical slots, bars having at portions thereof parallel back and front wall throughout their vertical extent with said portions located in said slots to support the bars in spaced relation.

References Cited in the file of this patent

UNITED STATES PATENTS

639,549	Fitzgerald	Dec. 19, 1899
959,112	Cleary	May 24, 1910
1,041,016	Butts	Oct. 15, 1912
2,860,788	Hardman	Nov. 18, 1958