June 10, 1952 M. S. COOPER ET AL 2,600,096

CUP RACK

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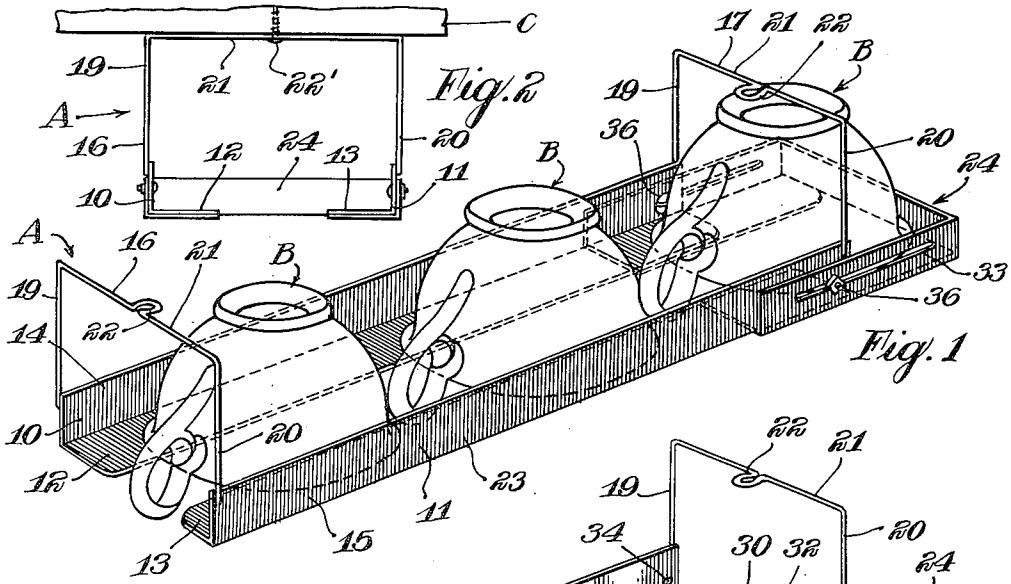


Fig. 2

Fig. 1

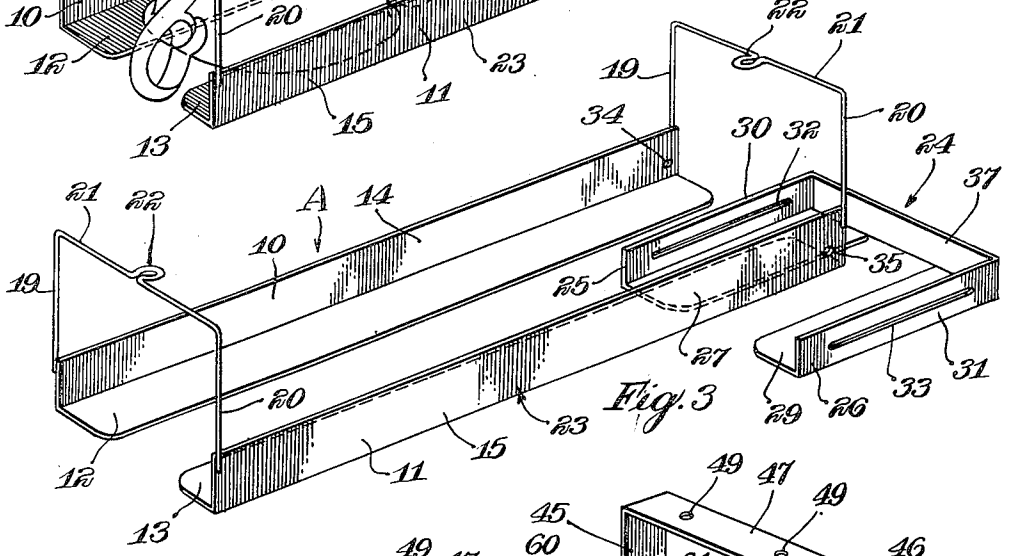


Fig. 3

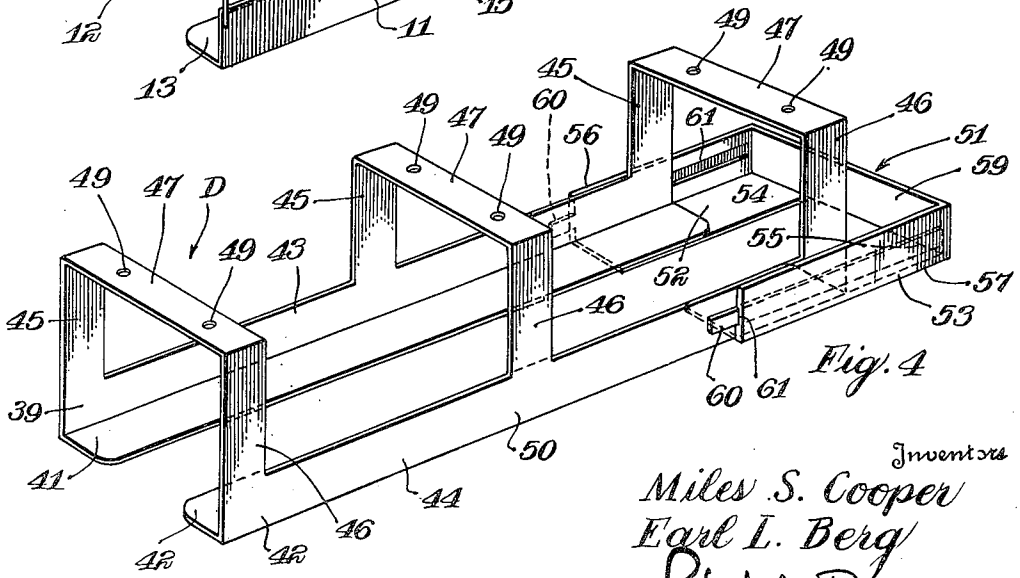


Fig. 4

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CUP RACK

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2 Claims. (Cl. 211—71)

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Our invention relates to an improvement in cup rack, wherein it is desired to provide a simple and attractive rack for supporting cups or the like.

Because of the fact that most cups are provided with handles projecting therefrom, these cups do not nest efficiently when placed one upon the other. As a result considerable shelf space is required to support a relatively small number of cups. In order to prevent this difficulty hooks are sometimes provided on the lowermost surface of the shelves from which the cups may be suspended by their handles. It is somewhat difficult to hang cups properly upon these hooks and as the cups are free to swing, damage by chipping or cracking is likely to occur, unless the cups are spaced a substantial distance apart.

It is an object of the present invention to provide an efficient means of supporting cups where they will require no shelf space and a minimum of room. This we accomplish by providing racks suspended beneath shelves in a cupboard or the like into which the cups may slide. As a result the cups may be conveniently stored in a space usually unoccupied in the average cupboard or cabinet.

A feature of the present invention resides in the provision of a pair of spaced slides upon which the upper edge of the cup may rest in inverted position, and a means of supporting these slides beneath a shelf or ledge. By spacing the slide guides apart, a space is left between the guides for accommodation of the cup handles.

A feature of the present invention resides in the provision of a cup rack which holds the cups inverted closely adjacent the under-surface of a shelf or ledge so that dust or dirt can not readily accumulate thereupon. The bottoms of the cups are close to the under-surface of the shelf supporting the rack and therefore are in the path of a minimum amount of circulating dust.

A feature of the present invention resides in the provision of a rack which is suspended from the under-surface of a shelf or the like and which is capable of supporting cups so that they may be easily and quickly removed. By providing spaced slides or guides for supporting the cups, each cup may be inserted or removed from beneath the rack by grasping the edge of the cup or the handle thereof and sliding the same longitudinally of the rack.

A feature of the present invention resides in the provision of an extensible rack which may be varied in length to better fit shelves of varying depths. This extension is so arranged that the edges of the cup can not well be chipped or cracked by engagement between the cup edges and the joint between the two extensible sections of the rack.

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A further feature of the present invention resides in the provision of a rack having an extension on one end thereof which is shorter in length than the diameter of the rim of the cup being supported. This extensible section is arranged in telescoping relation with the body of the rack in such a manner that the sliding guides of the extension are beneath the level of the slide guides of the body of the rack. As a result a portion of each cup supported rests upon the slides of the body portion of the rack, thereby preventing chipping of the cup by engagement with the joint between the two rack sections.

These and other objects and novel features of our invention will be more clearly and fully set forth in the following specification and claims.

In the drawings forming a part of our specification:

Figure 1 is a perspective view of our cup rack showing the construction thereof.

Figure 2 is an end view of the rack showing the manner in which the rack is supported from a shelf or ledge.

Figure 3 is a view similar to Figure 1, but showing the two parts of the rack in disassembled form.

Figure 4 is a perspective view of a modified form of rack construction.

The rack A illustrated in Figures 1, 2, and 3 of the drawings comprises a pair of angle members 10 and 11 arranged in substantially parallel relation. The angle members 10 and 11 include bottom flanges 12 and 13, respectively, upon which the edges of the cups B may rest. The angle members 10 and 11 also include side flanges 14 and 15, respectively, for engagement with the side edges of the cup or the cup rim to hold the cups from lateral movement in the rack. The slides 10 and 11 are of sufficient length to permit a plurality of cups B to be supported thereupon, and can be of somewhat greater length than is illustrated to hold a greater number of cups.

An inverted U-shaped supporting connection 16 is provided near one end of the slides 10 and 11, and a similar supporting member 17 is provided near the rear end of the slides 10 and 11. In the construction illustrated these supporting members 16 and 17 include vertical parallel sides 19 and 20 and a top connecting member 21 con-

necting the upper extremities of the side members 19 and 20. The lower ends of these side members are connected to the side flanges of the slides 10 and 11. The side members 19 are terminally connected to the flange 14 of the slide 10, while the side members 20 are terminally connected to the side members 15 of the slide 11.

In the construction illustrated the supports 16 and 17 are formed of wire or similar material and are provided with loops 22 therein intermediate the ends of the top members 21 for accommodation of screws 22' or other suitable means for holding the rack A to a shelf such as C.

The construction above described comprises the body portion 23 of the shelf A. Each such body portion is preferably provided with an extension member illustrated in general by the numeral 24 and best illustrated in Figure 3 of the drawings.

The extension 24 comprises a pair of angle members 25 and 26. Each comprises a substantially horizontal bottom flange 27 and 29, respectively, and a side flange 30 and 31, respectively. The bottom flanges 27 and 29 are designed to underlie the end portions of the bottom flanges 12 and 13 of the angle member 10 and the angle member 11, and to extend in telescoping relation therewith. The side flanges 30 and 31 are designed to lie outwardly of the side flanges 14 and 15 of the angle members of the body portion and to overlap the body portion an adjustable amount.

Elongated slots 32 and 33 are provided in the side flanges 30 and 31. Apertures 34 and 35 are provided in the flanges 14 and 15 near one end thereof. Bolts or other suitable connecting means 36 may extend through the apertures 34 and 35 and through the respective slots 32 and 33 to hold the body portion 23 and the extension 24 assembled. By loosening the bolts 36 the extensions 24 may be moved longitudinally relative to the body portion 23. As a result the rack A may be extended to fit shelves of varying depths.

The extension 24 is purposely made of such a length relative to the width of the rack so that a cup B cannot rest entirely upon the extension even when the rack is in fully extended position. The purpose for this arrangement lies in the fact that the flanges 12 and 13 of the body portion are slightly above the level of the flanges 27 and 29 of the extension 24. As a result if a cup rested entirely upon the extension, movement of the cup forwardly along the rack would cause the rim of the cup to engage against the rear ends of the flanges 12 and 13. In order to prevent injury to the cups, it has been found desirable that the forward edge of the rear-most cup rest partially upon the flanges 12 and 13.

The angle members 25 and 26 of the extension 24 are connected by an end strip 37. This strip 37 holds the angles 25 and 26 in proper relation and acts as an abutment to limit movement of the cups in the rack.

In Figure 4 of the drawings, we disclose a modified form of construction which is quite similar to that previously described. The rack D, illustrated in Figure 4, is designed for manufacture entirely from sheet material or plastic. The rack D comprises a pair of spaced angles 39 and 40 including bottom flanges 41 and 42 and side flanges 43 and 44. Integrally extending upward straps 45 and 46 project upwardly from the side flanges 43 and 44 at intervals throughout the lengths of the angles. Obviously two or more sets of projections 45 and 46 are usually desirable for supporting the rack. Integral connecting

strips 47 connect the upper extremities of the projections 45 and 46 to hold the angles 39 and 40 in proper spaced relation.

One or more apertures 49 are provided in each strip 47 to accommodate screws or other fastening means by which the rack may be secured, and suspended from a shelf such as C. The manner in which the rack is supported is similar to that described in connection with the rack A.

The body portion 50 of the rack thus described is preferably provided with an extension, indicated in general by the numeral 51. The extension 51 includes spaced angles 52 and 53, each including a bottom flange 54 or 55 and a side wall flange 56 or 57. The angles 52 and 53 are connected by a rear connecting strap 59 which holds the angles in proper relationship. The angles 52 and 53 are designed to embrace portions of the ends of the angles 41 and 42, as illustrated.

The extension 51 is slidably connected to the rack body 50 in any suitable way such as has been illustrated in connection with the rack A, or such as is illustrated in Figure 4. In Figure 4, we disclose a rib 60 on each of the side wall flanges 43 and 44 projecting longitudinally from the exterior surface thereof. The side walls 56 and 57 of the angles 52 and 53 of the extension are each provided with a groove 61 extending longitudinally thereof for accommodation of the rib 60. Thus it will be seen that the extension may be slidably adjusted relative to the body portion 50.

The extension 50 may be adjusted within certain safe limits and while no means is shown limiting the extension, such means is not entirely essential, as when in place the rear end of the rack usually abuts a cabinet wall. Accordingly once the rack is in place no further extension thereof is possible. The extension 51 is so arranged that it may not safely support an entire cup, requiring that at least a portion of the rim of the cup rest upon the angles 41 and 42. As a result there is no danger of chipping the cup by sliding the rim thereof into engagement with the rear ends of the angles 39 and 40.

In accordance with the patent statutes, we have described the principles of construction and operation of our cup rack, and while we have endeavored to set forth the best embodiment thereof, we desire to have it understood that obvious changes may be made within the scope of the following claims without departing from the spirit of our invention.

We claim:

1. A cup rack including a pair of spaced opposed angle members, the spaced angle members forming a slot therebetween open at one end, inverted substantially U-shaped connecting members connecting the sides of said angle members, said connecting members including substantially parallel sides and a bridging portion extending therebetween, said sides being secured to said angle members and being substantially in the plane thereof, said bridging portion having aperture means therethrough, and a strip at the end opposite said open end of said angle members connecting the same.

2. A cup rack including a pair of spaced opposed angle members having vertical parallel flanges and coplanar horizontal flanges, the spaced angle members forming a slot therebetween open at one end, inverted U-shaped connecting members connecting said angle members at spaced points throughout their length, said connecting members having parallel sides and a

connecting portion, said sides being secured to the outer surfaces of the vertical flanges of said angle members and substantially coplanar therewith, the bases of said connecting portion having aperture means therethrough.

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