April 28, 1953 F. C. HAAKE 2,636,709

CONTAINER SUPPORTING BRACKET

Filed Feb. 19, 1951

Fig. 1.

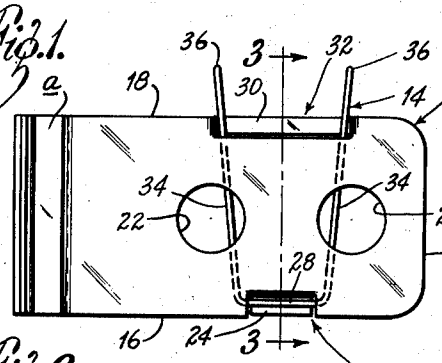


Fig. 3.

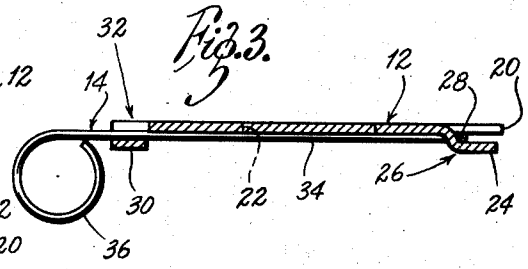


Fig. 2.

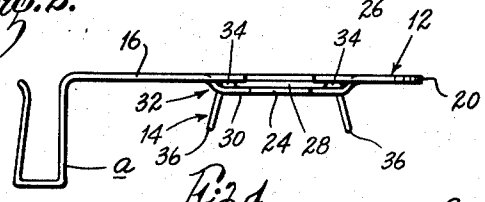


Fig. 5.

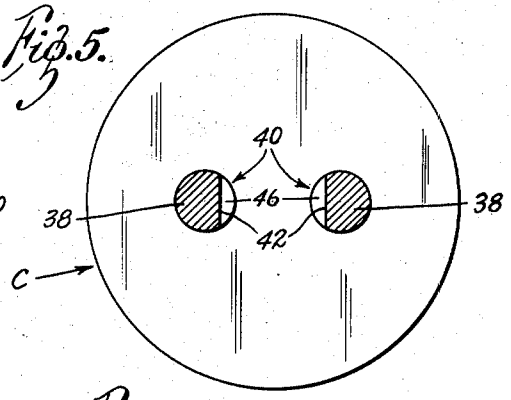


Fig. 4.

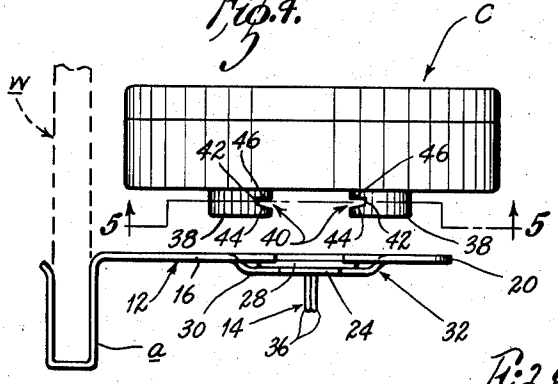


Fig. 7.

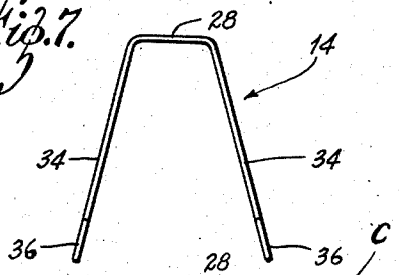


Fig. 8.

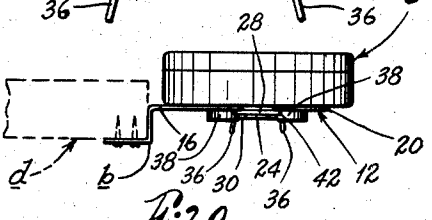


Fig. 6.

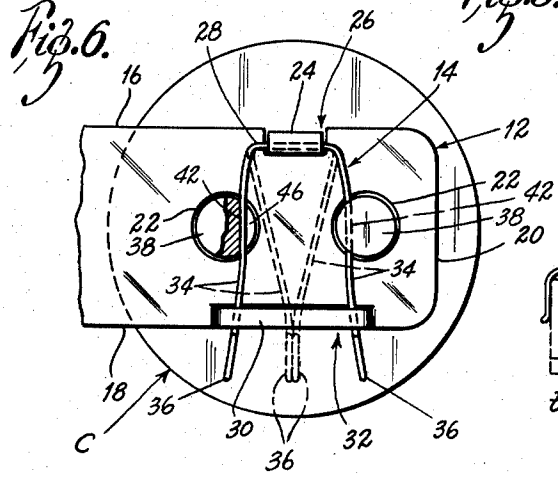
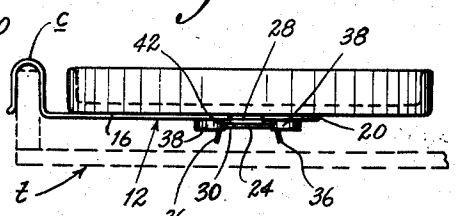


Fig. 9.



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CONTAINER SUPPORTING BRACKET

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6 Claims. (Cl. 248—229)

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The present invention relates generally to improvements in brackets for supporting containers or receptacles, particularly though not exclusively of the type which require frequent cleansings, for example ash trays, dishes, bowls, and the like.

More particularly, the invention relates to a bracket provided with means whereby removal and replacement of such container is a simple matter, but at the same time, fortuitous displacement of the container is obviated.

Means are provided on one end of the bracket for attaching it, either temporarily or permanently, to a stationary support. No claim is made herein however, to any particular securing means, since any well known clamping or attaching means may be incorporated in the bracket, as will appear.

When the bracket has been mounted in place, that portion thereof which incorporates the present invention is disposed in a horizontal plane, or at least approximately so, and projects into space.

It includes a shelf or plate of metallic or plastic material, provided preferably along its longitudinal centerline, with a pair of spaced circular openings or holes, a manually operable spring wire member, and means for retaining the latter in operative position thereon.

The container to be supported, is provided on its underside with a pair of depending circular lugs or projections, of such size and so spaced as to permit easy entry thereof into the openings of said shelf, upon manipulation of said spring member, as will be described.

Release of the spring member thereafter, automatically produces a locking action whereby the container is releasably held in position.

Objects, features and advantages of the invention will be readily apparent from an inspection of the accompanying drawing, and from the description to follow with reference thereto. Although the drawing illustrates the preferred embodiment thereof, it is to be understood that the invention contemplates such modifications as may fall within the scope of the appended claims.

In said drawing:

Fig. 1 is a top plan view of a bracket embodying the present invention, a suitable clamp being shown formed on one end thereof;

Fig. 2 is a front elevational view thereof;

Fig. 3 is a vertical sectional view on an enlarged scale, and taken approximately on line 3—3 in Fig. 1;

Fig. 4 is a front elevational view of the bracket mounted on an automobile window of the indirect ventilation type, with an ash receptacle shown suspended in proper position to be lowered onto the bracket;

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Fig. 5 is a view, partly in section and partly in elevation, taken on line 5—5 in Fig. 4;

Fig. 6 is a bottom plan view of the invention applied to the container of Fig. 5, the attaching means of the bracket being broken away;

Fig. 7 is a detail bottom plan view of the spring wire member per se;

Fig. 8 is an elevational view on a reduced scale, illustrating the container of Fig. 4 in locked position on the bracket, the latter being shown provided with conventional means for attaching it to a table or desk top;

Fig. 9 is a similar view illustrating the bracket provided with conventional means for attaching it to the upstanding rim of the food tray of a baby's high chair, and supporting a food plate or similar dish.

Referring now particularly to Figs. 3, 6 and 7, the bracket construction of the present invention is seen to include but two parts. One of these is a flat substantially rectangular plate constituting a shelf member generally designated 12, the other a substantially U-shaped spring wire member generally designated 14.

The contour of shelf member 12 is defined by what will be termed the front edge 16, the rear edge 18, and the end edge 20. That end of the shelf opposite the edge 20 may be formed as desired to provide means for mounting said shelf on a support so that it occupies a horizontal, or at least an approximately horizontal plane.

Thus for example, in Figs. 1 through 3, such mounting means is illustrated in the form of a U-shaped clamp portion *a* adapted to engage the lower marginal portion of an automobile window *w* of the well known indirect ventilation type, the latter suggested by broken lines.

Again, in Fig. 8, the mounting means is portrayed in the form of a depending angular portion *b* adapted to be secured by screws to the marginal edge of a table or desk *d*, the latter also suggested by broken lines.

In Fig. 9, the mounting means shown is in the form of an inverted U-shaped clamp portion *c* adapted to engage the upper marginal rim portion of a food tray *t* on a baby's high chair.

In other words, as previously noted, the invention contemplates the provision of suitable mounting means on that end of shelf 12 opposite edge 20, but no claim is made to any particular configuration or design of such means, as is understood.

On the longitudinal centerline of shelf 12, there

is provided a pair of spaced holes or openings 22, each preferably of circular contour as shown. On an imaginary transverse line intermediate the openings 22, a segment 24 of the shelf is cut out and depressed as at 26, to provide an anchoring recess or notch for the reception and retention of the bight portion 28 of the member 14.

Opposite segment 24, a segment 30 of the shelf is depressed as at 32 to provide with the body portion of said shelf what will be termed an elongated loop portion for the reception and retention of the leg portions 34 of the member 14.

The configuration of spring wire member 14, and the approximate spread thereof if it were removed from its position on the shelf, are portrayed in Fig. 7. When the device 14 is compressed to the position it occupies in Fig. 1, it is seen that portions of the legs 34 form chords across the circular openings 22.

The free ends of these legs project beyond the rear edge 18 of the shelf, and preferably terminate in rebent or loop portions 36, as shown particularly in Fig. 3.

A typical container C is illustrated in Figs. 4 through 6 in the form of an ash receptacle with a removable cover. The containers may assume other configurations than circular, as is understood. Also the size may vary, it being only necessary to lengthen the attachment-including end of the shelf, if for example the periphery of a container is larger than the ash receptacle illustrated, or vice versa.

By way of clarification, attention is directed to Fig. 9, where a relatively larger container, in the form of a baby's plate or the like, is seen to require a relatively longer shelf 12.

Regardless of the peripheral size or contour of the container, the bottom wall thereof is provided with a pair of depending, preferably circular projections or lugs 38. These lugs are spaced about the center of the container to correspond with the spacing of the openings 22 in the bracket shelf 12, as is understood. The diameter of each lug 38 is slightly smaller than that of each said opening.

It is here noted, that for explanatory purposes, it will be assumed that the more fully illustrated container C is considered to be exemplary.

In other words, the lugs 38 may thus be said to be spaced correspondingly with the openings 22 on a diametrical line, and preferably equidistant from the center of said container, as shown in Fig. 5.

The inner diametrically opposed peripheral portions of the lugs are notched or cut away as at 40 to provide recesses 42 for the reception of the chord portions of legs 34, as will appear. The lower surface 44 of each recess is preferably, though not necessarily, bevelled as portrayed in Fig. 4.

From the foregoing, it should be evident that the present invention provides a novel device for releasably supporting, in a horizontal or in an approximately horizontal plane, a container of the character described. It should also be manifest, that the invention comprises an assembly of only two elements, and suitable means for attaching the assembly to a stationary support.

Although it is believed that the manner in which the invention attains its objectives should be understood from the preceding description and reference to the drawing, a few brief explanatory statements may be advisable.

Thus, assuming that the invention is mounted, for example as in Fig. 4, and it is desired to lower container C into releasably supported position thereon, the loops 36 are first grasped between the thumb and forefinger, and then pressed together. The resulting disposition of said loops is illustrated in full lines in said Fig. 4, and in broken lines in Fig. 6.

The latter view also depicts in broken lines the resulting withdrawal of legs 34 from the chord-like positions these occupy relative to openings 22, so that the container may now be lowered onto shelf 12 with the lugs 38 projecting through and below the underface of said shelf.

With the container lowered into the only possible position it may occupy on shelf 12, manual release of loops 36 automatically causes legs 34 to spring laterally into engagement with recesses 42, thereby to lock the container against fortuitous displacement, as Fig. 6 abundantly clarifies.

It is noted that the peripheral portion of each lug, above the recess 42 therein, is coextensive with the thickness of shelf 12, so that the upper surface 46 of each recess, lies flush, or at least substantially flush with the underside of shelf 12. As a result, and facilitated by the bevelled surfaces 44, entry of the leg portions into the recesses is assured, immediately following release of loops 36.

Assuming now that the container should require cleansing, it is only necessary by the application of manual pressure to again bring said loops to the broken line position thereof portrayed in Fig. 6, and then elevate the container.

As previously intimated, this invention contemplates any modifications thereof which may come within the scope of the appended claims.

What I claim is:

1. In a bracket for supporting a container of the character described, said bracket including means on one end thereof for mounting same in horizontally disposed position on a support: a substantially rectangular shelf; a pair of spaced preferably circular openings on the longitudinal centerline of said shelf; a resilient spring member mounted on the shelf in operative position relative to said openings, said spring member being formed from a single length of wire into a substantially U-shaped configuration to include a pair of leg portions, a bight portion connecting one end of each leg portion with that of the other, and a reversely bent loop portion on the free end of each leg member; means integral with the shelf and adjacent the front edge thereof for anchoring the bight portion of said spring member; and means integral with the shelf and adjacent the rear edge thereof for retaining the leg portion of the spring member in a partially compressed disposition, the completely compressed disposition of said leg portions being obtainable by the application of manual pressure to the loop portions aforesaid.

2. In a bracket for releasably supporting a container of the character described, said bracket including means for attaching same to a support, the combination of a horizontally disposed shelf; a pair of spaced circular openings formed in the shelf on the longitudinal centerline thereof; a spring wire member including a bight portion and a pair of leg portions retained in operative position on the shelf by means of opposed depressed portions formed in the shelf, the free ends of said leg portions projecting beyond one edge of the shelf; and a loop formed on the extremity of each leg portion for facilitating the manual compression of said leg members.

3. In a bracket for releasably supporting a con-

tainer of the character described: the combination of a rectangular shelf member; a pair of spaced circular openings formed therein on the longitudinal centerline thereof; a substantially U-shaped spring wire member including a pair of spaced leg portions joined by a bight portion; an integral cut out and depressed segment formed adjacent one edge of the shelf for anchoring the bight portion of the spring wire member; an integral cut and depressed segment formed adjacent the opposite edge of said shelf for normally retaining the leg portions of said spring wire member in partially compressed position on the underside of the shelf, in which position a segment of each leg portion extends across one of said openings in the manner of a chord; and a loop formed on the projecting free end of each leg portion for the application of manual pressure to further compress said leg portions to a position wherein they do not extend across said openings.

4. In a bracket for supporting a container provided on its underside with a pair of spaced depending circular lugs each having a diametrically opposed horizontal recess formed therein; the combination of a substantially rectangular shelf having a front and a rear edge; a pair of spaced circular openings formed therein on the longitudinal centerline thereof; means incorporated in one end of the shelf for attaching same to a support; a substantially U-shaped wire spring member including a pair of leg portions joined by a bight portion, each of said leg portions terminating in a reversely bent loop portion projecting beyond the rear edge of said shelf; an integral cut out and depressed segment of the shelf adjacent the front edge thereof for anchoring the bight portion aforesaid of the wire member; and an integral cut and depressed segment of the shelf adjacent the rear edge thereof forming, with a portion of said shelf, a loop for retaining said leg

portions in compressed position on the underside of said shelf.

5. In a mountable shelf of the character described, means for releasably locking in position thereon a container provided with a pair of spaced preferably circular lugs each depending from the underside of said container and provided with opposed inner peripheral recesses, said means including: a pair of openings in said shelf on the longitudinal centerline thereof for receiving said depending lugs, said openings being spaced to correspond with the spacing of said lugs; and a U-shaped resilient wire member including a bight portion anchored in place on the underside of said shelf and a pair of leg portions each adapted to be sprung into engagement with one of said recesses, and to be manually withdrawn therefrom.

6. A device for releasably locking and supporting in space a receptacle including a bottom wall having a pair of spaced depending lug portions each provided with opposed recesses in the inner peripheral portions thereof, said device including: a shelf and means on one end thereof for attaching same to a support; a pair of openings formed on the longitudinal centerline of the shelf in spaced relationship corresponding to the spacing of the receptacle lugs and adapted to receive the latter; and a U-shaped resilient wire member permanently mounted on said shelf and adapted to releasably engage said recesses whereby to retain the receptacle on said shelf against fortuitous displacement thereof.

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