

[54] CHAIR-ARM CUP RECEPTACLE

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211/87; 248/311; 220/18

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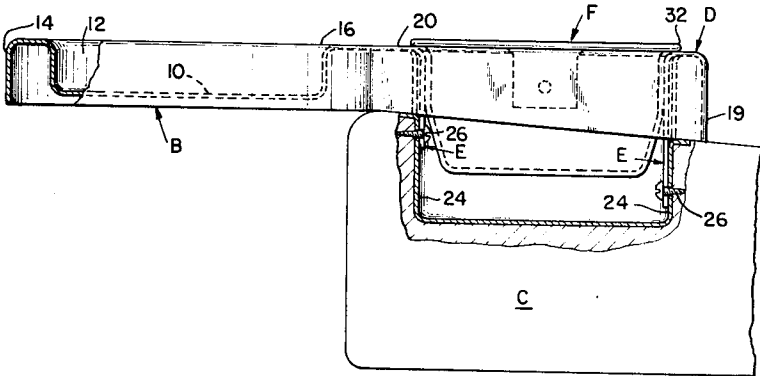
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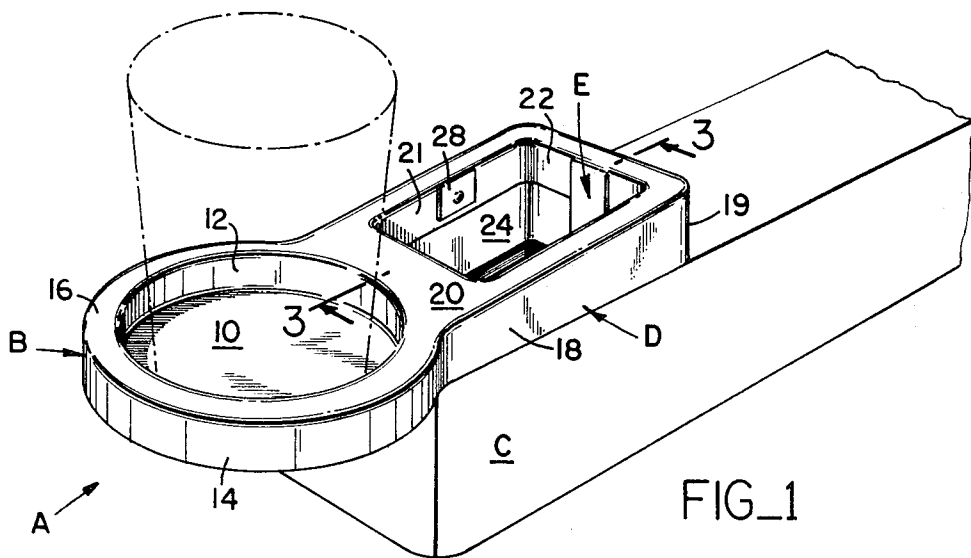
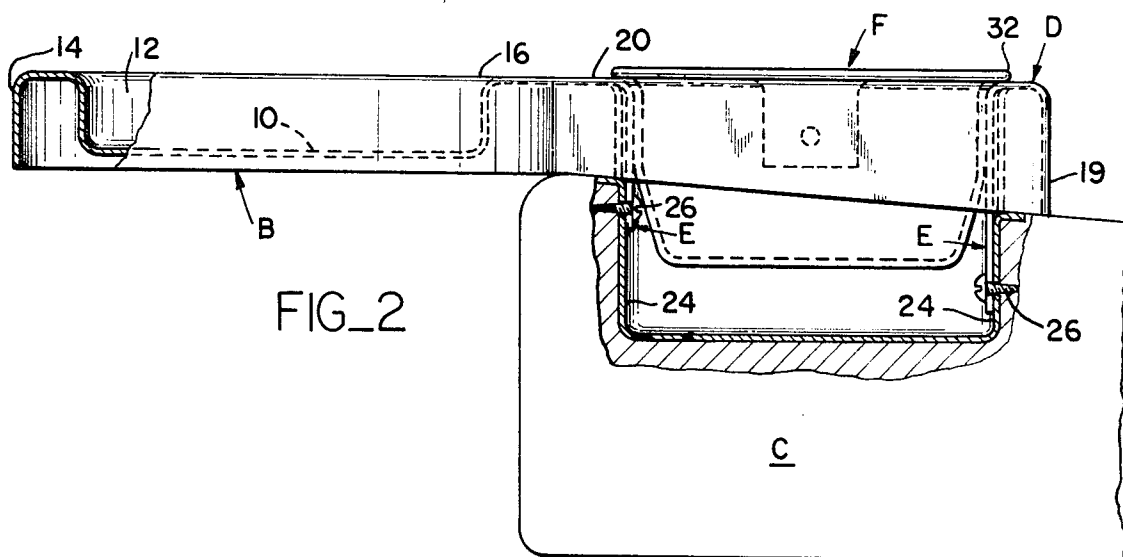
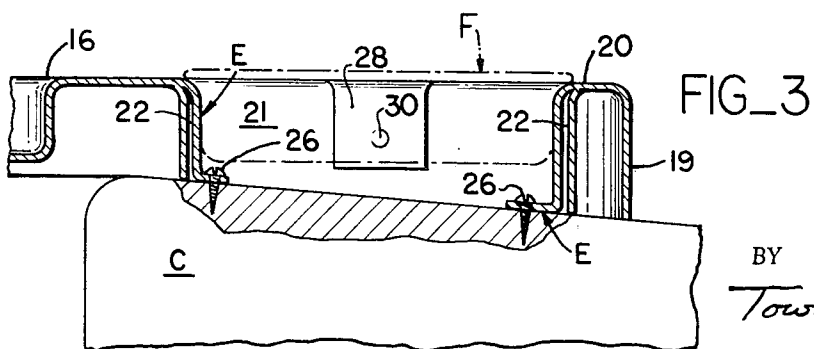
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[57] ABSTRACT

A cup receptacle for attachment to the end of the arm of a chair is provided. A cup tray is cantilevered beyond the end of the chair-arm from a mounting on the end of the chair-arm. The mounting is in turn secured to the chair by bendable tabs from the mounting arm.

17 Claims, 3 Drawing Figures





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CHAIR-ARM CUP RECEPTACLE

This invention relates to a receptacle for cups, and more particularly to a receptacle for supporting a cup in a cantilevered fashion beyond the end of the arm of a chair.

Heretofore, chair-arm receptacles for cups including those comprising a recess in the chair-arm for receiving a cup, have been positioned near the forward end of the chair-arm. As the length of a chair-arm is typically coextensive with the length of the forearm and hand of an average person sitting in the chair, a cup supported in such a chair-arm receptacle may easily be tipped over by inadvertent movement of the chair occupier's arm. Further, the positioning of the cup in the arm of the chair causes discomfort and interferes with the rest and relaxation of the occupant; movement of his arm must constantly be restricted if he is to avoid disturbing the cup.

It is therefore an object of this invention to provide a cup holder for supporting a cup in space beyond the end of the arm of a chair.

As an advantage of this invention, the cup is positioned beyond the normal reach of the chair occupant. Carried out of harm's way, the cup is less likely to be upset by inadvertent movement of the occupier's arm.

As another advantage of this invention, the comfort of the chair occupant is increased because he no longer need restrict movement and placement of his arm over the chair-arm in order to avoid spilling the cup.

It is another object of this invention to provide a cup receptacle having a cup tray supported in space beyond the end of the chair-arm by an arm mounting contiguous with the cup tray and overlying the end of the chair-arm. The arm mounting comprises an apertured rectangular rim, the aperture exposing the chair-arm beneath. Flexible mounting tabs extending through the aperture are fastened to the chair-arm to secure the cup receptacle in place.

As an advantage of the arm mounting of this invention, the cup receptacle may be readily mounted to the flat surface at the end of a chair-arm by bending the flexible tabs into an L-shaped configuration, and then securing the tabs to the top surface of the chair-arm with screws.

As a further advantage of the present invention, easy installation of the cup receptacle is afforded to chair-arms having preexisting receptacles in their arms. The aperture of the rectangular ring is aligned above the existing cavity; and thereafter the flexible tabs bent downwardly to extend through the aperture into the chair-arm cavity. The tabs are secured to the sidewalls of the chair cavity by means of screws.

As yet another advantage of the arm mounting of this invention, a cigarette ash tray of low silhouette may be received by and supported within the aperture of the arm mounting rim. The chair cup receptacle thus serves not only as a support for the cup, but also as a support for an ash tray. Because of its low profile, the ash tray, though mounted on the chair-arm, does not interfere with the comfort of the chair occupant.

The present invention will now be described by reference to the following drawings wherein;

FIG. 1 is a perspective view of the chair-arm cup receptacle of this invention, the arm to which it is attached shown in fragmented perspective;

FIG. 2 is a partially cut-away side view of the chair-arm receptacle of FIG. 1; and

FIG. 3 is a fragmented, side view of the chair-arm cup receptacle of FIG. 1 secured to the top surface of a chair-arm.

With reference to the figures wherein like numerals represent like elements throughout the several views, a chair-arm cup receptacle A is illustrated having a cup tray B supported in a cantilevered fashion beyond the end of a chair-arm C by a rectangular arm mounting D. Arm mounting D has a central rectangular ash tray aperture through which a pair of oppositely opposed flexible tabs E extend, these tabs secured to the walls of an existing cavity in the arm of the chair. Ash tray F of low silhouette is received within the central rectangular ash tray aperture of the arm mounting.

Cup tray B includes a circular cup support disc 10. Cylindrical wall 12 extends upwardly a short distance from disc 10, circumscribing the perimeter to define a shallow, circular, disc-like cup tray. Cylindrical wall 14, concentric with wall 12, delimits the outer boundary of the cup tray. Wall 14 extends from the first corner at one end of the rectangular arm mounting rim to the opposite corner at the same end of the rim. Doughnut-shaped surface 16, defining a concentric circular aperture coextensive with disc 10, extends across the annular opening between cylindrical walls 12 and 14.

The rectangular rim of arm mounting is contiguous with and extends from cup tray B. Rim D is bounded by paired vertical sidewalls 18 and a vertical rear wall 19. Walls 18 and 19 are bounded at their top edge by rectangular, apertured surface 20 which is coplanar with doughnut-shaped surface 16. From a central rectangular ash tray aperture in surface 20, interior sidewalls 21 and interior end walls 22 extend perpendicularly downwardly.

It is often the case that the chair-arms are sloped downwardly from the front to the back of the chair, as illustrated in the FIGS. 1-3. To maintain the cup tray in a horizontal plane, rim D is constructed having a bottom slope complementary to the top slope of the average arm. Experience has shown that an angle of 4° 30' is average for most sloped chair-arms.

Arm mounting D is designed at its bottom surface to attach to the top surface of a chair arm. Mounting is provided by flexible tabs E. These flexible mounting tabs E extending from surface 20 are bent downwardly through the ash tray aperture in the rectangular surface to lie flat against the inner walls 24 of an existing cavity in the chair-arm C. Screws 26, passed through a hole adjacent the end of tabs E are threaded into the arm of the chair to secure the receptacle in place.

The arm of the chair to which the chair-arm cup receptacle is attached may not have an existing opening. In such a case, the flexible mounting tabs E can be bent into an L-shaped configuration as illustrated in FIG. 3 and fitted flush against the top surface of the arm C. Screws 26 are then passed through the hole adjacent the end of each tab and threaded into the arm of the chair to secure the chair-arm receptacle in place.

A pair of oppositely opposed flanges 28 extend downwardly from surface 20 and across sidewalls 21. These flanges have a raised dimple 30. Ash tray F having an outwardly annular collar 32 is received within the aperture in the arm mounting. Dimples 30 press inwardly against the outer surface of the walls of the ash tray to provide a friction fit, thus stabilizing the ash tray within the ash tray aperture. Annular collar 32 overlies surface 20 to support the ash tray within the aperture.

As can be seen from FIG. 2, concentric cylindrical walls 12 and 14, and surface 16 form a ring having a U-shaped cross-section. Such a cross-section imparts increased rigidity to the cup tray. The chair occupant, is less likely to accidentally bend or twist the tray by the exertion of pressure thereon as he sits down in or raises from the chair.

To install the chair-arm cup receptacle of this invention, it is first positioned over the end of the arm of the chair. If the arm has an existing cavity, the ash tray therein and its mounting ring are removed and the aperture in the arm mounting is superimposed above this cavity. With the chair-arm receptacle properly positioned, the mounting tabs E are bent downwardly into the cavity. Screws 26 are passed through the tabs and threaded into the sidewalls of the cavity. The previously removed ash tray F may then be inserted into the aperture in the arm mounting.

If the chair does not have a preexisting cavity, the mounting tabs are bent to an L-shaped configuration, the bottom leg of the L set flush against the upper surface of the chair-arm C. Screws 26 are then passed through holes provided at the end of the mounting tabs and threaded into the chair-arm. With the cup receptacle secured to the chair-arm, an ash tray F can then be inserted into the ash tray aperture of the arm mounting.

The chair-arm receptacle of this invention may be formed out of any suitably strong material. It is preferred to use chrome-plated or stainless steel because of the strength of these materials and the ease by which the flexible mounting tabs may be integrally formed with the receptacle. It is also contemplated that the chair-arm receptacle of this invention be formed of plastic and made of any desirable color. The surface of the plastic receptacle may be modified to simulate the appearance of upholstery or leather.

The width of the arm mounting portion can be coextensive with the width of the end of the chair-arm to which it is mounted. By so sizing the arm mounting, worn portions of the chair-arm upholstery are concealed beneath the arm mounting when the chair-arm receptacle is secured in place.

It should be apparent that while the mounting tabs have been described as extending from surface 20, they can extend from any point along the side walls 21 or 22 of the arm mounting, such as from the bottom of these walls. Likewise, other modifications will be readily apparent to those of ordinary skill in the art, and are deemed to be within the scope of this invention as defined by the following claims.

I claim:

1. A cup holder for mounting to a chair-arm comprising: a receptacle defining a concavity for receiving and holding a cup; a mounting connected to said receptacle at one end for the cantilevered support of said receptacle from said one end; said mounting defining a lower surface resting on the upper surface of a chair-arm; and at least one flexible tab attached to said mounting at the upper end and extending substantially vertically downward to the surface of said chair-arm at the lower end for attachment to the upper surface of said chair-arm.

2. The invention of claim 1 and wherein said tab is formed from bendable material.

3. The apparatus of claim 1 and wherein said cup receptacle is designed to support said cup in a first plane and said defined surface at the bottom of said mounting is within a second plane.

4. The invention of claim 3 wherein said surfaces are inclined with respect to one another at an angle of $4^{\circ} 30'$.

5. In combination, the elements comprising: a chair having at least one arm; a receptacle defining a concavity for receiving and holding a cup; a mounting connected to said receptacle at one end for the cantilevered support of said receptacle from said one end, said mounting defining a lower surface resting on the upward portion of said chair-arm; and at least one flexible tab attached to said mounting at the upper end and extending downwardly to the surface of said chair-arm at the lower end for attachment to said chair-arm, said mounting secured to said chair-arm at its end to support said receptacle in space beyond the end of the arm of the chair.

6. The invention of claim 5 and wherein the flexible tab is bent in an L-shaped configuration with the bottom leg of the L attached to the top surface of the chair-arm.

7. The invention of claim 5 and wherein the chair-arm defines a preexisting cavity adjacent its end, the bendable mounting tabs extending downwardly into said cavity in the

chair-arm and attached to the walls of said cavity.

8. The invention of claim 5 and wherein the top surface of the arm of the chair is sloped, and the mounting has a sloped bottom surface which is complementary to the slope of the top surface of the arm.

9. The invention of claim 8 and wherein said sloped surfaces are inclined at an angle of $4^{\circ} 30'$.

10. The invention of claim 5 and further including an ash tray with an upper annular collar; and an aperture of complementary section configured in said mounting for receiving said ash tray and supporting the lower surface of said annular collar to hold said ash tray.

11. A cup holder for mounting to a chair-arm comprising: a receptacle defining a concavity for receiving and holding a cup, a mounting at one end of said receptacle for cantilevered support of said receptacle from said one end, said mounting defining a lower surface resting on the upper surface of said chair-arm, said mounting having an aperture configured therein for receiving an ashtray with an upper annular collar and a section complementary to said aperture, the lower surface of said annular collar being supported by the periphery of said aperture.

12. Apparatus according to claim 11 wherein said chair-arm is inclined at an angle with respect to the horizontal and wherein the lower surface of said mounting is inclined at a complementary angle to support said cup on a horizontal plane.

13. Apparatus according to claim 11 wherein said mounting includes at least one tab extending downwardly to the surface of said chair-arm for attachment to the upper surface of said chair-arm.

14. Apparatus according to claim 13 wherein said chair-arm includes a cavity in the upper surface thereof, said cup holder being disposed with said aperture being in registration with said cavity to permit said ashtray to extend downwardly into said cavity and said tab extending downwardly into said cavity for attachment to said chair-arm.

14. A cup holder for mounting to a chair arm having an inclined upper surface comprising: a receptacle defining a concavity for receiving and holding a cup, and a mounting at one end of said receptacle for cantilevered support of said receptacle from said one end, said mounting defining a lower surface resting on the upper surface of said chair arm, the lower surface of said mounting being inclined at an angle complementary to the inclination of the upper surface of said chair arm to support said cup on a horizontal plane.

16. Apparatus according to claim 15 wherein said mounting includes an aperture configured therein for receiving an ashtray with an upper annular collar and a section complementary to said aperture, the lower surface of said annular collar being supported by the periphery of said aperture.

17. Apparatus according to claim 16 wherein said chair arm includes a cavity in the upper surface thereof, said cup holder being disposed with said aperture being in registration with said cavity to permit said ashtray to extend downwardly into said cavity.

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