

[54] **RECEPTACLE MOUNTING MEANS**

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[58] Field of Search **248/224, 311, 226 E, 316 D, 248/225, 313; 211/88, 71, 75, 81, 82; 131/231, 257**

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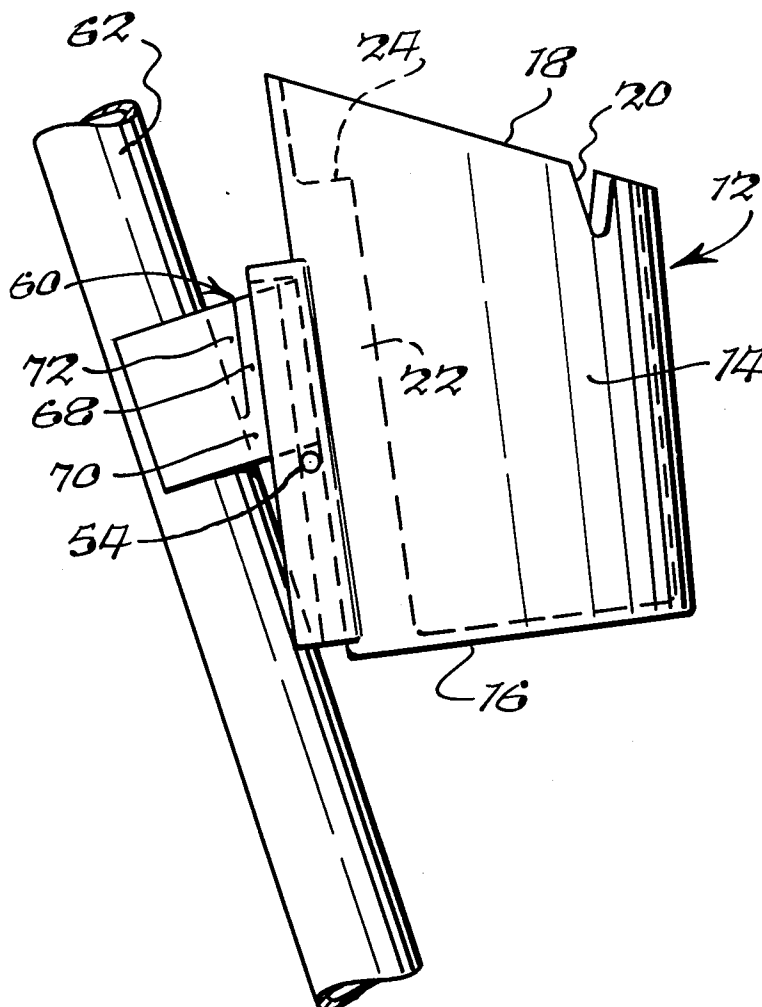
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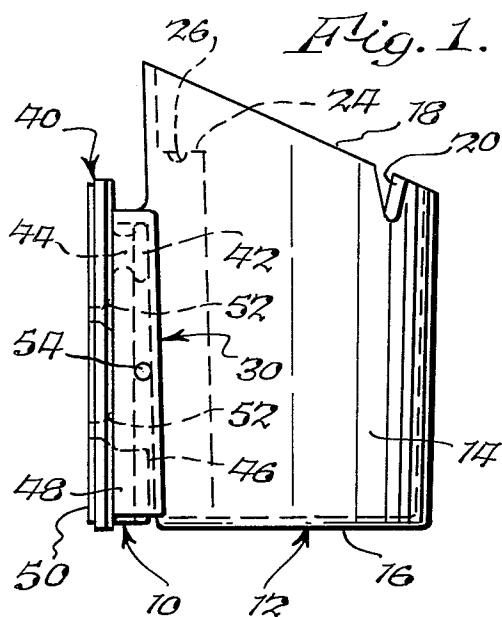
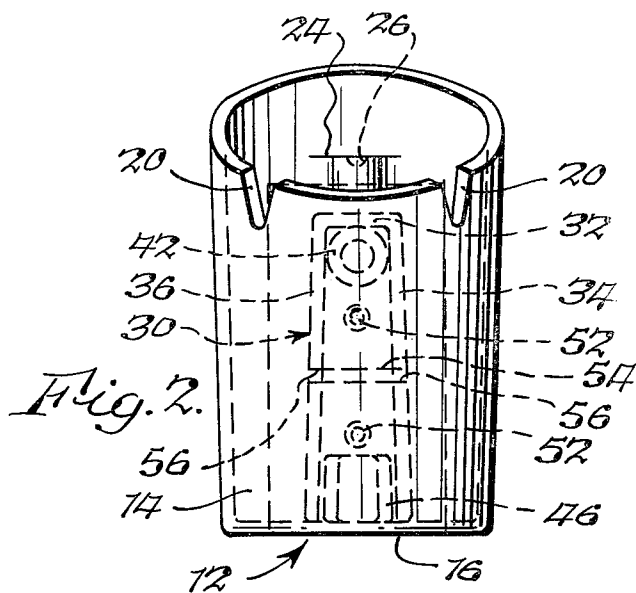
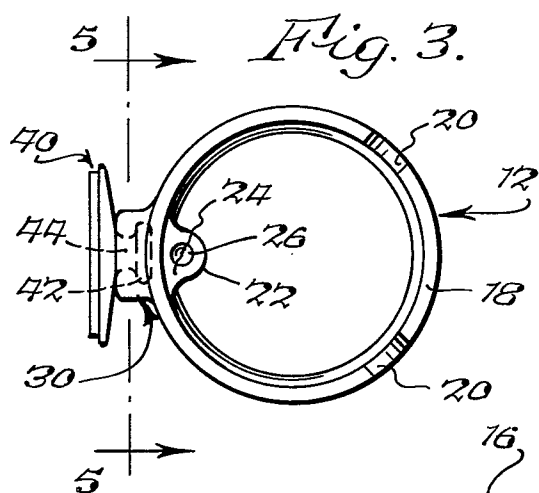
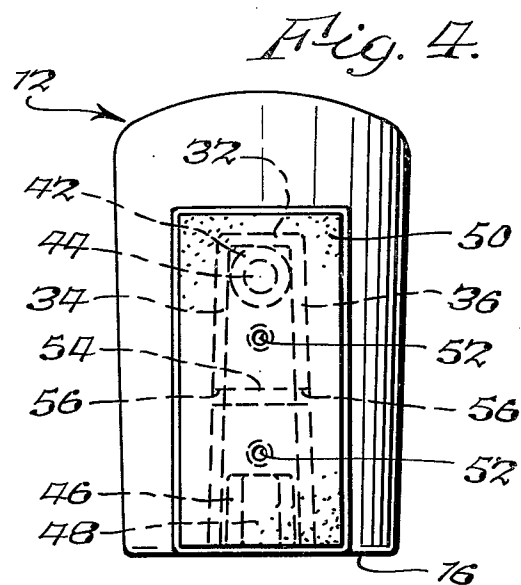
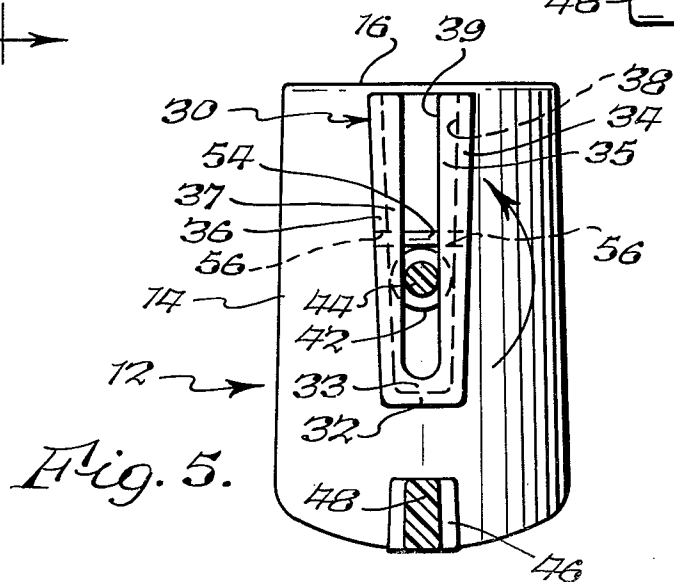
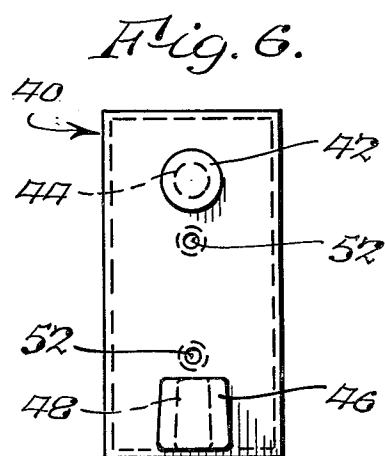
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ABSTRACT

A receptacle mounting body comprising a clip portion detachably mounted on a chair leg or the like and a receptacle carrying portion formed at an angle relative to the axis of the socket portion in a diverging relation thereto. The body is invertible to accommodate chair legs having different angles of inclination to orient the receptacle in a desired upwardly inclined position and variously sized insert collars can be snap-fitted within the clip portion to accommodate differently sized chair legs. In another form of the invention, a mounting plate is provided for attaching a receptacle to supporting surfaces in a manner deterring unauthorized removal of the receptacle while enabling the receptacle contents to be emptied without removal thereof from the mounting plate.

13 Claims, 17 Drawing Figures





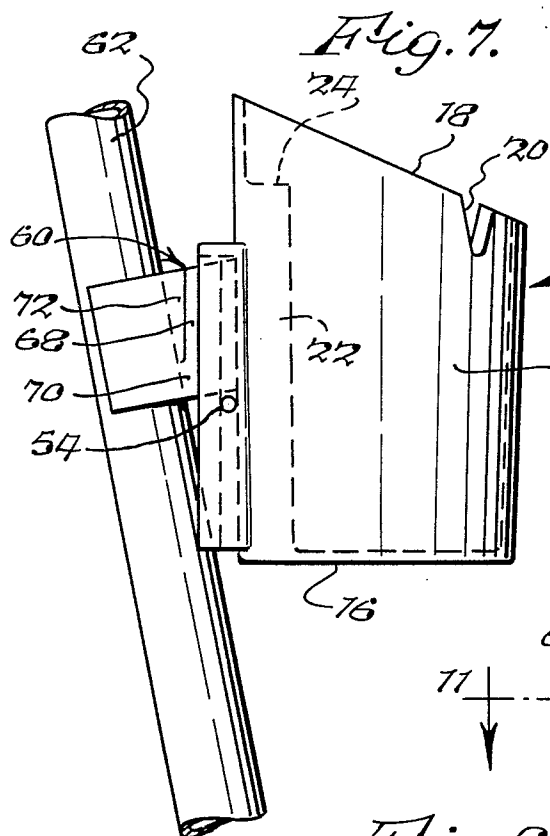
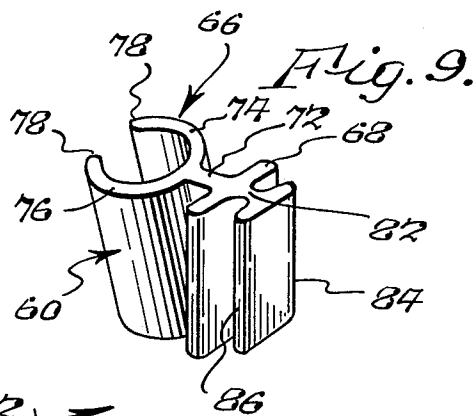
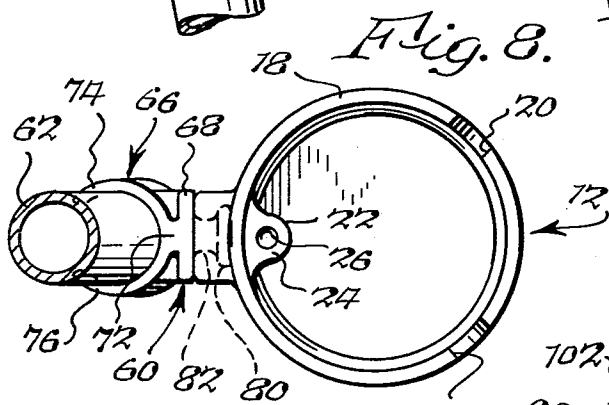
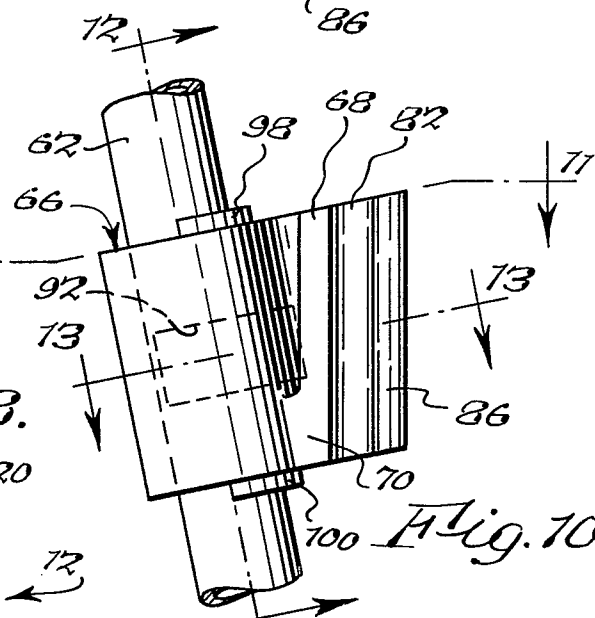
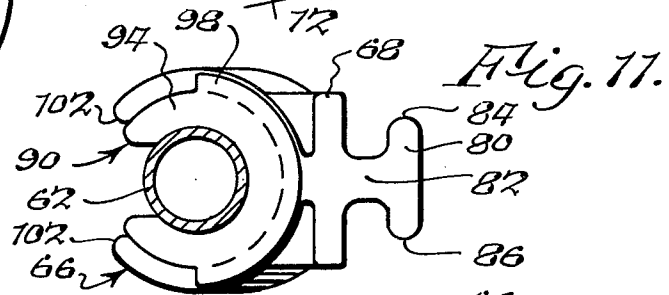
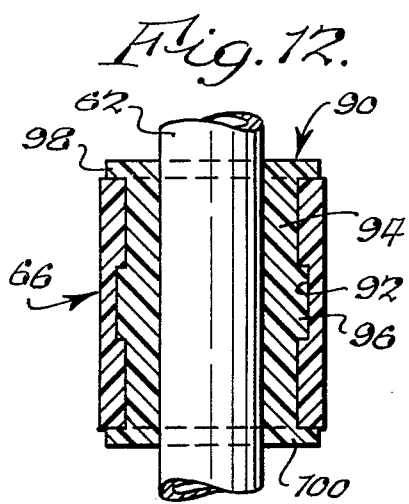
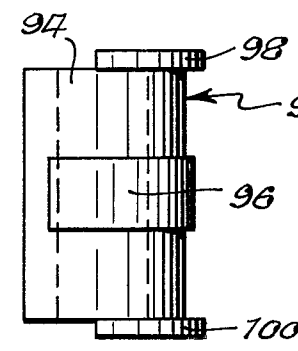
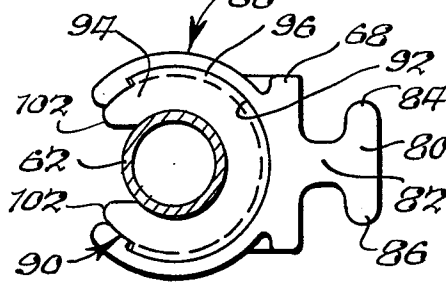


Fig. 15.

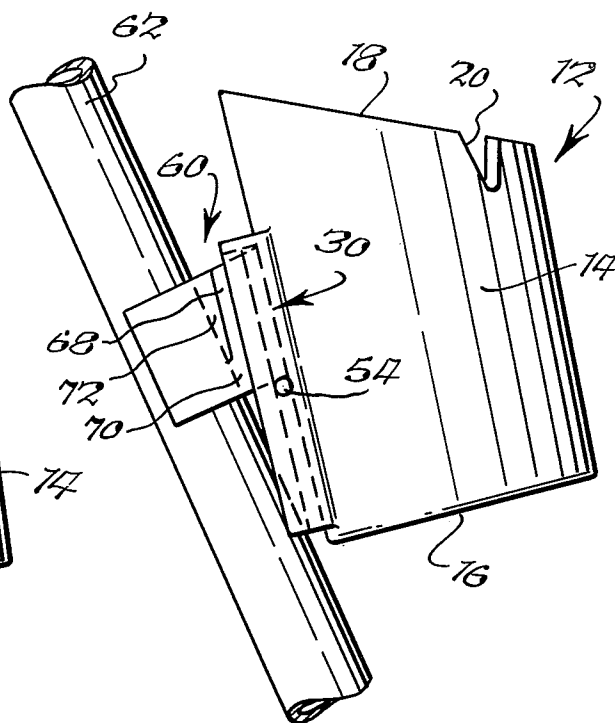


Fig. 16.

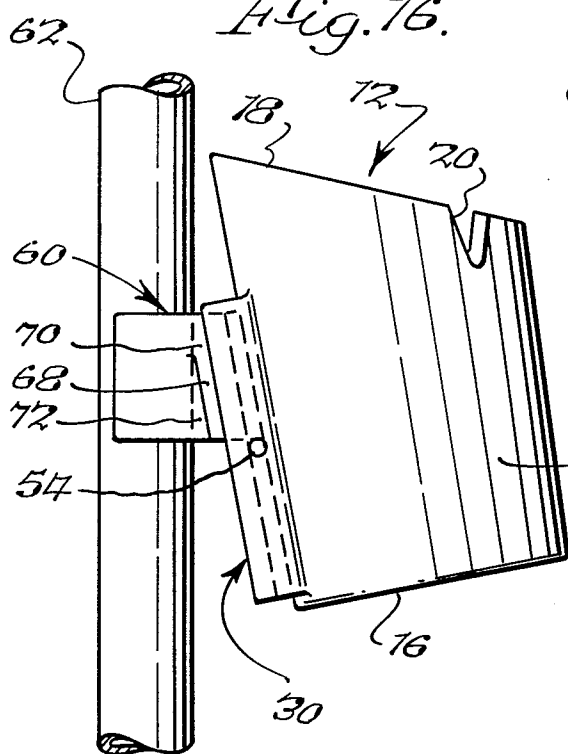
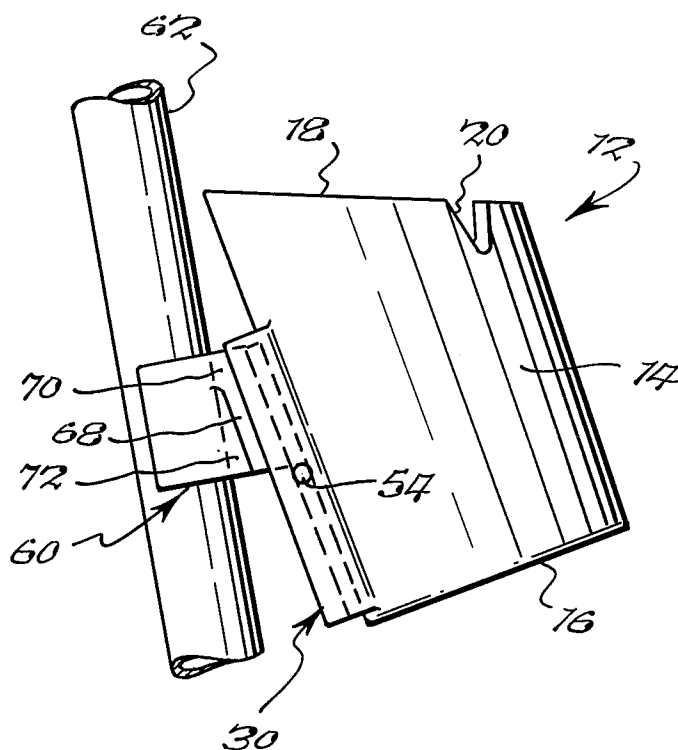


Fig. 17.



RECEPTACLE MOUNTING MEANS

BACKGROUND OF THE INVENTION

This invention relates generally to the mounting of receptacles and, more particularly, to means for mounting ash receptacles in a generally upright and inclined orientation.

Many problems are encountered in attaching ash receptacles to substantially vertically extending supports, such as chair legs, walls and the like. In attaching receptacles to chair legs for example, orienting the receptacle in the desired position to provide convenient access into the receptacle and to prevent spillage of the receptacle contents can pose problems because of the different angles of inclination of the chair legs relative to a true vertical. Also, the sizes of the chair legs vary, thereby requiring separate mounting arrangements for the differently sized chair legs, respectively.

In mounting ash receptacles on walls or other vertical supporting surfaces, a common expedient is to use fasteners extending through the back of the receptacle and into the wall. While such fasteners provide satisfactory anchorage, they often are exposed and detract from the esthetic appearance of the assembly. Sometimes, the ash receptacles are detachably mounted on wall brackets securely fastened to the wall. In such arrangements, the ease of detachability of the receptacle from its associated bracket renders it susceptible to pilferage.

SUMMARY OF THE INVENTION

Accordingly, an object of the present invention is to provide an improved receptacle mounting apparatus obviating the above disadvantages and offering versatility in mounting the receptacle in a desired orientation on tubular supports having different angles of inclination.

Another object of this invention is to provide the foregoing mounting apparatus with means for accommodating differently sized tubular supports.

A further object of the present invention is to provide a simple and improved mounting plate for supporting a receptacle on a vertical supporting surface in a manner providing a neat and attractive appearance and discouraging pilferage.

In one aspect thereof, the receptacle mounting means of this invention is characterized by the provision of a body having a clip portion detachably mounted on a tubular support member and a receptacle carrying portion formed at an angle relative to the axis of the clip portion in a diverging relation thereto. The body is invertible to accommodate different angles of inclination of the support member for positioning the receptacle in a desired vertical or inclined orientation. Also, variously sized insert collars can be snap-fitted within the clip portion to accommodate differently sized support members. In another form of the invention, a mounting plate is provided for attaching the receptacle on vertical supporting surfaces in a manner inhibiting unauthorized removal of the receptacle from the mounting plate and enabling the receptacle contents to be emptied without detachment thereof from its mounting plate.

The foregoing and other objects, advantages, and characterizing features of the present invention will become clearly apparent from the ensuing detailed description of certain illustrative embodiments thereof,

taken together with the accompanying drawings wherein like reference characters denote like parts throughout the various views.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevational view of one form of a mounting apparatus of this invention, shown supporting an ash receptacle in an upright position;

FIG. 2 is a front elevational view of the assembly of FIG. 1;

FIG. 3 is a top plan view thereof;

FIG. 4 is a rear elevational view thereof;

FIG. 5 is a vertical sectional view, taken about on line 5—5 of FIG. 3, showing the ash receptacle in a rear elevational view in an inverted position;

FIG. 6 is a front elevational view of the receptacle mounting apparatus of FIG. 1;

FIG. 7 is a side elevational view of another form of mounting apparatus of this invention, shown supporting an ash receptacle in a generally upright position;

FIG. 8 is a top plan view of the receptacle mounting apparatus of FIG. 7;

FIG. 9 is a perspective view, on an enlarged scale, of the receptacle mounting apparatus of FIG. 7;

FIG. 10 is a side elevational view of still another form of a receptacle mounting assembly of this invention;

FIG. 11 is a transverse sectional view, taken about on line 11—11 of FIG. 10;

FIG. 12 is a longitudinal sectional view, taken about on line 12—12 of FIG. 10;

FIG. 13 is a transverse sectional view, taken about on line 13—13 of FIG. 10;

FIG. 14 is a side elevational view of an insert collar used in conjunction with the form of the invention shown in FIG. 10;

FIG. 15 is a view similar to FIG. 7, but showing the mounting apparatus attached to a support member inclined at a greater angle than that of FIG. 7;

FIG. 16 is a view similar to FIG. 7, but showing the mounting apparatus in an inverted position; and

FIG. 17 is a view similar to FIG. 16, but showing the mounting apparatus attached to a support member inclined at a greater angle than that of FIG. 16.

DETAILED DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS

Referring now in detail to the illustrative embodiments depicted in the accompanying drawings, there is shown in FIG. 1 one form of a mounting apparatus of this invention, generally designated 10, especially adapted for mounting an ash receptacle 12 on walls or other generally vertical supporting surfaces.

Receptacle 12 is a bowl comprising a body of tubular shape having a side wall 14 closed at its lower end by a bottom end wall 16 formed integral therewith and open at its upper end. The open, upper end is defined by an inclined upper edge 18 formed with a plurality of V-shaped notches 20 to provide holders or rests for cigarettes, cigars and the like. Of course, the number of grooves 20 formed in receptacle upper edge 18 can vary, as desired. The terms, top, bottom, upper, lower, upwardly, downwardly, and the like, as used herein, are applied only for convenience of description with reference to FIGS. 1 and 2 and the normal position of use of such receptacles, and are not used in a limiting sense.

The plastic or other suitable material forming receptacle 12 is formed to provide a vertical rib 22 extending upwardly from bottom wall 16 along the rear portion of receptacle 12 and terminating in a shoulder 24. For purposes of this description, the rear portion of receptacle 12 is taken to be the left side thereof as viewed in FIG. 1, or that portion having the longest dimension. A dimple 26 is formed in shoulder 24 for snuffing out cigarettes, cigars and the like.

A bracket, generally designated 30, is formed integral with the outer surface of side wall 14 along the rear end thereof. Bracket 30 has a generally inverted U-shaped body comprising a short, horizontally extending bight portion 32 and a pair of legs 34 and 36 extending from the opposite ends of bight portion 32 downwardly in a diverging relation. Portion 32 and legs 34 and 36 are provided with inturned flanges 33, 35 and 37, respectively, defining a groove 38 coextensive with portion 32 and legs 34 and 36 for a purpose that will presently become apparent. The opposed edges of flanges 33 and 35 define a vertical slot 39 for receiving portions of a mounting assembly, as will presently appear.

Mounting assembly 10 comprises a generally rectangular shaped mounting plate or backplate 40, preferably formed of a non-metallic material, such as phenolic plastic for example. The front face of plate 40 is provided with a projection in the form of a knob 42 connected to plate 40 by a reduced diameter neck portion 44. Also, a tongue 46 projects forwardly from plate 40 and is connected thereto by a neck portion 48. Tongue 46 is located below knob 42 in substantially vertical alignment therewith. Knob 42 and tongue 46 can be formed integral with plate 40 by a suitable injection molding process.

Mounting plate 40 can be secured to a vertical supporting surface by means of a suitable adhesive 50 applied to the rear face of plate 40. Alternatively, a pair of vertically space countersunk holes 52 can be formed in mounting plate 40 for securement thereof by suitable screws (not shown) insertable through holes 52.

In use, mounting plate 40 is fastened to a vertical supporting surface by means of adhesive 50 or screw fasteners received in holes 52. Then, receptacle bracket 30 is slip fitted downwardly over knob 42 with groove 38 receiving knob 42 and flange portions 35 and 37 engaging therebehind. Receptacle bracket 30 is moved further downwardly so that the lower ends of legs 34 and 36 engage about tongue 46 with groove 38 receiving the latter and flange portions 35 and 37 engaging therebehind. Downward movement of bracket 30 is limited by the engagement of bight portion 32 with knob 42. When this is done, receptacle 12 cannot be pulled away from the supporting surface without first being lifted from mounting plate 30.

When the parts are thus assembled, the bight portion 32 of bracket 30 seats on knob 42, and the diverging legs 34 and 36 bear against the sides of knob 42 and tongue 46 with a wedging action whereby bracket 30 is firmly anchored on mounting plate 40 by the combined weight of bracket 30 and receptacle 12.

In order to prevent removal of receptacle 12 from mounting assembly 10 while enabling the receptacle contents to be emptied, a roll pin 54 is press fitted into a pair of aligned openings 56 formed in diverging legs 34 and 36 and is interposed between knob 42 and tongue 46. When it is desired to empty the receptacle contents, receptacle 12 is lifted vertically to disengage

the lower ends of legs 34 and 36 from tongue 46. When legs 34 and 36 are clear of tongue 46, receptacle 12 is inverted 180° about knob 42 into the inverted position shown in FIG. 5 to discharge the receptacle contents. Also, roll pin 54 serves to lock receptacle 12 to its mounting 10, thereby discouraging pilferage and the unauthorized removal of receptacle 12.

FIG. 7 illustrates another form of a mounting apparatus comprising a body, generally designated 60, for attaching ash receptacle 12 to a tubular member 62, such as the leg of a chair or the like. Body 60 is provided with a C-shaped clip portion 66 and a rear or base receptacle engaging portion 68 formed at an angle relative to the axis of clip portion 66 and joined thereto at one end thereof at a common juncture 70. The remainder of clip portion 66 is connected to base portion 68 by a central web 72 extending from juncture 70 to the other end of clip portion 66.

Body 60 preferably is formed of a resiliently yieldable plastic material, such as polyethylene for example, and can be formed in a unitary, one-piece construction by any suitable molding process. Such a material is virtually unaffected by deleterious chemicals and moisture and will not score or scratch the surfaces engagable thereby.

Clip portion 66 comprises a pair of curved flanges 74 and 76 extending arcuately from juncture 70 and web 72 for snap-fit, gripping attachment about tubular member 62. The leading edges of arcuate flanges 74 and 76 are rounded, as at 78, to facilitate slip fitted engagement about tubular member 62. The inside diameter of clip portion 66 can vary as dictated by the size of member 62. Also, the specific cross sectional configuration of flanges 74 and 76 and thereby clip portion 66 can vary to conform to flat sided or, otherwise differently configured members 62.

An elongated tongue 80, extending substantially lengthwise of base portion 68, is connected thereto by a web portion 82 formed integral with base portion 68. Tongue 80 is provided with laterally projecting flanges 84 and 86 extending on opposite sides of web portion 82 and adapted to be received within receptacle bracket groove 38 in the assembled relation therewith.

In use, the curved flanges 74 and 76 of clip portion 66 are spread apart and snap-fitted around tubular member 62 with base portion 68 and tongue 80 in a substantially vertical direction, as shown in FIG. 7. Then, receptacle bracket 30 is slip fitted downwardly over tongue 80 with slot 39 receiving web portion 82 and groove 38 receiving laterally projecting flanges 84 and 86 and flange portions 35 and 37 engaging therebehind. When the parts are thus assembled, the bight portion 32 of receptacle bracket 30 seats on the top of tongue 80, and the diverging legs 34 and 36 bear against the opposite tongue flanges 84 and 86 with a wedging action whereby receptacle 12 is firmly anchored in place on mounting clip 60.

To securely lock receptacle 12 to body 60, roll pin 54 is press fitted into aligned openings 56 and 58 in legs 34 and 36 and extends transversely beneath tongue 80, as shown in FIG. 7, to prevent lifting of receptacle bracket 30 relative to tongue 80. If desired, receptacle 12 can be conveniently attached to body 60 prior to the attachment of the latter to tubular member 62. When it is desired to empty the receptacle contents or otherwise temporarily remove receptacle 12 from member 62, the entire assembly is pulled laterally away from tu-

bular member 62 causing the resiliently yieldable, arcuate flanges 74 and 76 to be withdrawn from engagement with member 62.

To accommodate different angles of inclination of the supporting tubular member 62, base portion 68 is formed at an angle of approximately 10° relative to the axis of clip portion 66. Thus, when assembling body 60 to a chairleg oriented at a slight angle of inclination, say 10° to a true vertical plane such as shown in the illustrative embodiment of FIG. 7 for example, body 60 is attached to tubular member 62 in a manner orienting juncture 70 at the bottom of body 60 so that receptacle 12 will be slip fitted downwardly over that end of tongue 80 remote from juncture 70. This causes receptacle 12 to be positioned in a true vertical orientation when attached to the inclined chair leg.

While FIG. 7 illustrates one mode of utilizing body 60 in attaching receptacle 12 to an inclined chair leg, it should be understood that receptacle 12 preferably is oriented at a slight rearward angle of inclination relative to a true vertical so as to provide convenient access to shoulder 24 within receptacle 12 for extinguishing cigarettes, cigars and the like. To this end, FIG. 17 illustrates the body 60 inverted on a tubular member 62 inclined at the same angle as that shown in FIG. 7 so that juncture 70 is positioned at the top of body 60. Receptacle 12 is slip fitted downwardly over the end of tongue 80 adjacent juncture 70, causing receptacle 12 to be positioned at a rearward angle of inclination of approximately 20° to a true vertical when attached to tubular member 62. The final 20° disposition of receptacle 12 results from the summation of the angles of inclination of tubular member 62 and body base portion 68 relative to clip portion 66. In such an arrangement, snuffing shoulder 24 is readily accessible for the extinguishment of cigarettes and the like.

Where tubular member 62 is disposed in a true vertical plane as shown in FIG. 16, body 60 again is inverted to orient receptacle 12 in a rearward angle of inclination of approximately 10° relative to a true vertical. For use with a chair leg or tubular member 62 having a relatively large angle of inclination, such as 25° relative to a true vertical for example, body 60 is attached thereto in an upright position whereby juncture 70 is located at the bottom of body 60, as shown in FIG. 15. This positions receptacle 12 at a rearward angle of inclination of approximately 15° to provide convenient access to snubbing shoulder 24. Thus, body 60 can be applied to chair legs of different angles of inclination and selectively inverted to orient receptacle 12 in the desired slightly rearwardly inclined position. While the preferred 10° angle formed between clip portion 66 and base portion 68 of body 60 offers optimum versatility in mounting receptacle 12 at the desired orientation on variously angled chair legs and the like, it should be understood that this angle can vary, if desired, within the purview of this invention.

Still another form of a receptacle mounting of this invention is shown in FIGS. 10-14 wherein differently sized insert collars 90 are adapted to be selectively snap fitted within clip portion 66 of body 60 to accommodate chair legs and the like of different diameters. In this form of the invention, clip portion 66 is formed with an arcuately extending recess 92 along the inner wall surface thereof for receiving a complementary formation on insert collar 90, as will presently be described. In all other respects, body 60 is identical in

construction and operative in the same manner as the mounting body previously described and illustrated in FIGS. 7-9 and 15-17.

Insert collar 90 comprises a cylindrical, C-shaped body 94 formed of a resiliently yieldable synthetic plastic material, such as polyethylene for example, and is formed in a unitary, one-piece construction by any suitable molding process. An arcuately extending rib formation 96 is formed integral with the outer surface of body 94 for snap fitter engagement within recess 92 in the assembled relation with body 60, as shown in FIG. 12. Locking lug portions 98 and 100 are formed on the opposite ends of body 94 and project slightly radially outwardly therefrom for seating engagement on the opposite ends of clip portion 66 of body 60. Formation 96 locks insert collar 90 against rotation in body clip portion 66 and, together with lugs 98 and 100, locks collar 90 against relative axial movement therein.

The opposite leading edges of collar 90 defining the opening therebetween are rounded, as at 102, to facilitate slip fitted engagement about tubular member 62. The inside diameter of collar 90 conforms to the outside diameter of member 62. Thus, two or more collars 90 of different inside diameters can be supplied with body 60 for use with chair legs and the like of different sizes.

In attaching a receptacle 12 to a chair leg of a given size, the user chooses the appropriately sized collar 90 and inserts it in clip portion 66 of body 60 with formation 96 snap fitting into recess 92 and lugs 98 and 100 snap fitted over the opposite ends of clip portion 66. Receptacle 12 can be affixed to body 60 in the same manner hereinbefore described either before or after the assembly of collar 90 to body 60. Then, the entire assembly is slip fitted over the chair leg with body 94 of insert collar snap fitted about such leg.

From the foregoing, it is apparent that the present invention fully accomplishes its intended objects. The provision of a versatile mounting arrangement enables ash receptacles to be positioned in a desired orientation regardless of the angle of inclination of the tubular support to which they are attached. Also, the selective use of insert collars snap fitted within the clip portion of the mounting body renders it adaptable to differently sized chair legs and the like.

In another mounting arrangement, a mounting plate is provided for securing an ash receptacle thereto in a manner discouraging pilferage and enabling the ash receptacle to be emptied without detaching the same from its mounting.

Illustrative embodiments of this invention having been described and illustrated in detail, it is to be understood that this has been done by way of illustration only.

I claim:

1. Mounting means for releasably securing a receptacle to a tubular support member comprising: a body having a clip portion and a receptacle engaging portion; said receptacle engaging portion being joined to said clip portion in a diverging relation thereto; said body being selectively invertible; said clip portion being adapted for snap fit attachment to a tubular support member in either position; said receptacle engaging portion having means for detachably mounting a receptacle to said body in either position whereby said receptacle can be mounted on tubular support mem-

bers of various angles of inclination to position said receptacle in a generally upward disposition.

2. Mounting means according to claim 1 wherein said body is formed of a resiliently yieldable plastic material in a unitary, one-piece construction.

3. Mounting means according to claim 2 wherein said plastic material is polyethylene.

4. Mounting means according to claim 1 wherein said detachable mounting means comprises a tongue projecting outwardly from said receptacle engaging portion and generally coextensive therewith; said tongue having opposite flanges receivable in a groove formed in a receptacle carrying bracket.

5. Mounting means according to claim 1 including an insert collar having a body provided with means for securing said collar within said clip portion and an inner periphery complimentary to the outer periphery of said tubular support member.

6. Mounting means according to claim 5 wherein said securing means comprises a formation on the outer peripheral surface of said collar body for snap-fit attachment within a complimentary recess in the inner surface of said clip portion.

7. Mounting means according to claim 6 wherein said securing means further comprises lug portions formed on the opposite ends of said insert collar body and projecting slightly radially outwardly therefrom for seating engagement against the opposite ends of said clip portion.

8. Mounting means according to claim 4 in combination with a receptacle having a generally inverted U-shaped supporting bracket; said supporting bracket having a pair of downwardly diverging legs provided with inwardly directed flanges defining opposite grooves; said opposite flanges of said tongue being slip fitted within said grooves behind said bracket flanges to releasably secure said receptacle bracket in position on said mounting means body.

9. The combination according to claim 8 wherein said diverging legs are provided with aligned openings; and a pin extending through said openings beneath said tongue for locking said receptacle bracket to said body receptacle engaging portion.

10. Mounting means for a receptacle being in combination with the receptacle, said combination comprising:

- a. mounting means, said mounting means comprising a body having one face adapted to lie against and be secured to a supporting surface; said body having a knob projecting outwardly from the other face thereof and connected thereto by a neck portion; a tongue projecting outwardly from said other face of said body in aligned, spaced relation to said knob; and
- b. receptacle means, said receptacle having a generally inverted U-shaped supporting bracket, said supporting bracket having a pair of downwardly diverging legs provided with inwardly directed flanges defining opposite grooves; the opposite edges of said knob and said tongue being slip fitted within said grooves behind said bracket flanges, said knob carrying said bracket and serving as a pivot about which said bracket is rotatable and said tongue restraining said bracket against rotatable movement about said knob; said bracket being displaceable relative to said body for disengaging said bracket from said tongue to free said bracket for rotation about said knob to empty the contents of the receptacle carried by said bracket.

11. Mounting means according to claim 10 wherein said body is formed of a plastic material in a unitary, one-piece construction.

12. Mounting means according to claim 10 including means for adhesively securing said one face of said body to said supporting surface.

13. The combination according to claim 10 wherein said diverging legs are provided with aligned openings; and a pin extending through said openings and interposed between said knob and said tongue for locking said receptacle bracket to said mounting plate while enabling said receptacle bracket to be displaced sufficiently to disengage said diverging legs from said tongue whereby said bracket and thereby said receptacle can be rotated about said knob into an inverted position for emptying the contents of said receptacle.

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