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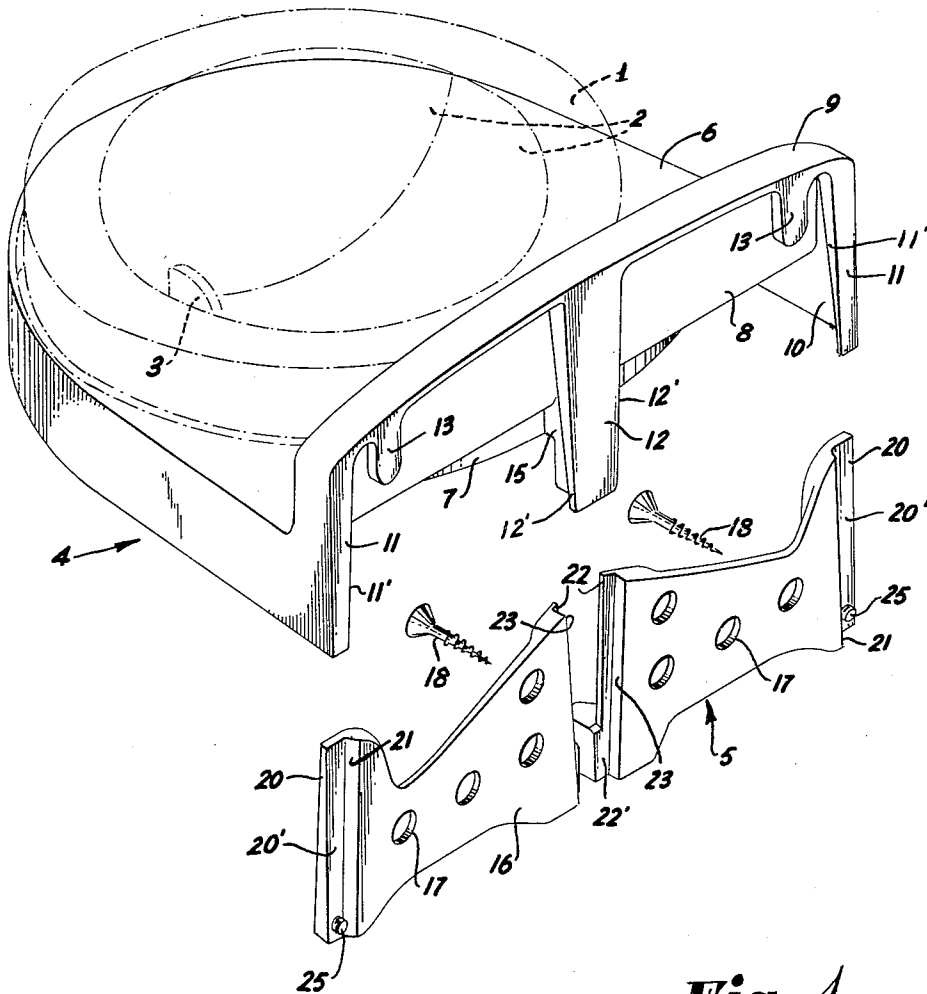
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RECEPTACLE MOUNTING ASSEMBLY

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2 Sheets-Sheet 1



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RECEPTACLE MOUNTING ASSEMBLY
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This invention relates to the mounting of receptacles on generally vertical supporting surfaces. More specifically, while it is by no means limited thereto this invention is particularly directed to an assembly for mounting large ash trays on walls and the like.

Large wall mounted urns, frequently weighing from seven to fifteen pounds, have become increasingly popular in recent years, and are being extensively utilized in the corridors and adjacent the elevators of office buildings, hospitals, and wherever a large volume of pedestrian traffic is encountered. Heretofore, such urns usually have been mounted on the wall by means of fasteners extending through the back of the receptacle and into the wall. While such fastening arrangements provide a secure anchorage, they are objectionable in that the fastening members are exposed and thereby detract from the esthetic appearance of the unit.

Accordingly, the primary object of this invention is to provide an invisible mounting for wall mounted receptacles, in which the mounting part directly fastened to the wall is housed in a manner providing a neat and attractive appearance.

Another object of this invention is to provide a mounting assembly enabling removal of the receptacle and its supporting bracket from the wall carried mounting, without disengaging the latter from the wall. Still another object of this invention is to provide such a unit with hidden locking means to discourage the unauthorized removal of the mounted receptacle from the wall.

In one aspect thereof, the mounting assembly of my invention is characterized by the provision of a receptacle carrying bracket having a pair of first mounting flange portions adjacent the opposite sides thereof providing downwardly diverging edge formations projecting laterally inwardly toward each other and an interposed second mounting flange portion providing downwardly converging edge formations projecting laterally outwardly away from each other, and a mounting plate having a body portion adapted to lie flat against a supporting surface and be secured thereto, the mounting plate having a pair of flange portions offset from the body portion adjacent the opposite sides thereof providing a pair of downwardly diverging first shoulders and an interposed flange portion offset from the body portion providing a pair of downwardly converging second shoulders, the bracket flange portions slip fitting behind the mounting plate flange portions and the first and second bracket flange edge formations engaging the first and second mounting plate shoulders, thereby to releasably secure the receptacle carrying bracket in mounted position on a normally generally vertical supporting surface.

The foregoing and other objects, advantages and characterizing features of the mounting assembly of this invention will become clearly apparent from the ensuing detailed description of one presently preferred embodiment thereof, taken in conjunction with the accompanying drawings illustrating such embodiment wherein like reference numerals denote like parts throughout the various views and wherein:

FIG. 1 is an exploded, rear perspective view of a receptacle mounting assembly of this invention, a portion of the supported receptacle being indicated in phantom;

FIG. 2 is a side elevational view showing the same installed on a wall; and

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FIG. 3 is a fragmentary bottom plan view thereof.

Referring now in detail to the illustrative embodiment depicted in the accompanying drawings, there is indicated a somewhat bullet shaped ash receptacle 1 normally closed at the top by a pair of hinged blades 2 adapted to be swung open by manipulating an actuating lug 3. Such receptacles are known, per se, and are illustrative of one type of receptacle which can be supported by the mounting assembly of this invention which comprises a receptacle carrying bracket, generally designated 4, and a mounting plate, generally designated 5.

The bracket 4 has a cantilevered portion 6 formed with a skirted opening 7 receiving the receptacle 1. The portion 6 projects from a bracket mounting portion comprising an upstanding back wall 8 provided with a rearwardly directed spacing flange 9 extending around the top and opposite sides thereof. The spacing flange 9 extends downwardly below the back wall 8 and merges with a skirt 10 around the outer edge of portion 6.

The spacing flange 9 terminates in a pair of inwardly directed mounting flange portions 11 at opposite sides thereof, and an intermediate, centrally positioned mounting flange portion 12 extending downwardly from the top edge thereof. Additional mounting flange portions can extend from the spacing flange 9 if desired, as indicated at 13, with all of the mounting flange portions 11, 12 and 13 having their outer faces arranged to abut the supporting wall surface 14. Where the supporting wall is flat, the outer faces of mounting flange portions 11, 12 and 13 lie substantially in a common plane with the exposed edge of spacing flange 9, as illustrated, so that the mounting portion of bracket 4 will abut and lie flat against the surface of the supporting wall 14. However, if the supporting wall surface is curved, not flat, then the exposed edge of spacing flange 9 and the outer faces of mounting flange portions 11, 12 and 13 will be of complementary configuration.

For added strength, the intermediate mounting flange portion 12 is joined to back wall 8 and skirt 7 by a supporting web 15.

The second part of the mounting assembly of this invention, comprising the mounting plate 5, can be a cast unitary construction having a body portion 16 adapted to lie flat against the supporting wall surface 14 and formed with several through openings 17. Openings 17 are adapted to receive fastening screws 18 extending there-through into engagement with supporting wall 14, and provide a choice of locations for such fasteners. If the receptacle is to have a predetermined position on the supporting wall 14, the provision of multiple openings 17 makes it easier for the installer to fasten into the desired area whatever the position of the receptacle. If wiring conduits or the like are positioned behind the receptacle, the provision of multiple fastening openings enables the installer to avoid such conduits.

Mounting plate 5 has a pair of offset flange portions 20 adjacent the opposite sides of body portion 16, and these offset portions provide a pair of downwardly diverging first shoulders 21. The bracket flange portions 11 have corresponding downwardly diverging edge formations 11' which engage the shoulders 21. Mounting plate 5 also has an intermediate offset portion comprising a pair of flanges 22 which provide a pair of downwardly converging shoulders 23. The bracket flange portion 12 which comprises a pair of flanges directed outwardly from web 15, has corresponding downwardly converging edge formations 12' which engage the shoulders 23.

Body portion 16 of the illustrated mounting plate is cut away between flanges 22 except for the further offset bridge portion 24 which accommodates the supporting web 15 of bracket flange portion 12.

In use, mounting plate 5 is fastened to the supporting

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wall 14. Then, bracket 4 is slip fitted downwardly over mounting plate 5, with the bracket flange portions 11 engaging behind the mounting plate flange portions 20, and with the bracket flange portion 12 engaging behind the mounting plate flange portions 22. When this is done, bracket 4 cannot be pulled away from the wall 14 without first being lifted from mounting plate 5.

When the parts are thus assembled, the diverging edge formations 11' seat on the diverging shoulders 21, and the converging edge formations 12' seat on the converging shoulders 23, with a wedging action, whereby the bracket 4 is firmly anchored on mounting plate 5 by its own weight combined with that of the supported receptacle.

In addition, the inner faces 11'', 12'' of the bracket mounting flange portions 11, 12, respectively, taper downwardly, and the inner faces 20' and 22' of the mounting plate portions 20, 22, respectively, incline downwardly and inwardly, toward wall 14. Consequently, as bracket 4 is slip-fitted downwardly into position on mounting plate 5, the abutting tapered and inclined surfaces 11'', 20' and 12'', 22' force the outer faces of the mounting flange portions 11, 12 and 13 and the exposed edge of spacing flange 9 tightly against the supporting wall 14.

With this mounting arrangement, it will be observed that bracket 4 is supported at three points, comprising the opposite sides and center thereof. This three point suspension distributes the weight of the bracket and receptacle across the mounting plate 5, to provide a more secure anchorage. In addition it permits the use of opposed, diverging-converging, lateral shoulders, whereby the bracket can be firmly wedged into position on its mounting plate to avoid any looseness or rocking while permitting leveling of the receptacle carrying bracket 4. Further, the coating tapered surfaces cause the bracket mounting portion to be pulled firmly against the supporting wall to present a neat appearance and to facilitate cleaning around the mounted unit.

At the same time, the bracket 4 can be readily removed when desired, and then replaced, without removing or even loosening the mounting plate 5.

To impede the unauthorized removal of bracket 4, and to securely lock the receptacle bracket against rocking or shifting if that should be a problem in any instance, the offset portions 29 carry set screws 25 which engage the bracket mounting flange portions 11 and force the latter tightly against the supporting wall 14. The set screws are positioned at points below the back wall 8, but within the skirt 10, so that they are not readily visible while being accessible from beneath the bracket for manipulation by appropriate means.

Accordingly, it is seen that the mounting assembly of this invention fully accomplishes its intended objects. While only one, presently preferred embodiment has been disclosed in detail, that has been done by way of illustration only, and without thought of limitation, it being intended to cover all variations and modifications falling within the scope of the appended claims.

Having fully disclosed and completely described this invention, what is claimed as new is:

1. A mounting assembly for releasably securing a receptacle to a generally vertical supporting surface comprising, a receptacle supporting bracket having a pair of downwardly diverging first mounting flange portions adjacent the opposite sides thereof projecting laterally inwardly toward each other and an interposed pair of downwardly converging second mounting flange portions projecting laterally outwardly away from each other, and a bracket mounting plate having a body portion adapted to lie against and be secured to a supporting surface, said mounting plate having a pair of flange portions offset from said body portion adjacent the opposite sides thereof providing a pair of downwardly diverging first shoulders and an interposed flange portion offset from said body portion providing a pair of downwardly converging second shoulders, said bracket flange portions

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slip fitting behind said mounting plate flange portions and said first and second bracket flange portions wedging against said first and second mounting plate shoulders to releasably secure said bracket in position on a supporting surface.

2. A mounting assembly as set forth in claim 1, wherein said bracket flange portions taper downwardly and the inner faces of said mounting plate flange portions incline downwardly and inwardly thereby to wedge said bracket flange portions against a supporting surface.

3. A mounting assembly as set forth in claim 1, together with set screw means carried by at least one of said mounting plate flange portions and engaging the corresponding bracket flange portions to releasably lock said bracket in mounted position.

4. A mounting assembly for releasably securing a receptacle to a generally vertical supporting surface comprising, in combination with a receptacle carrying bracket having a supporting surface engaging mounting portion open at the bottom thereof and provided with a continuous spacing flange along the opposite side and top portions thereof, said spacing flange having mounting flange portions adjacent the opposite sides of said mounting portion with downwardly diverging first edge formations and a generally centrally disposed downwardly extending mounting flange portion with downwardly converging second edge formations, a bracket mounting plate having a body portion adapted to lie against and be secured to a supporting surface, said mounting plate having a pair of offset portions adjacent the opposite sides of said body portion providing a pair of downwardly diverging first shoulders and a generally centrally disposed offset portion providing a pair of downwardly converging second shoulders, said bracket mounting flange portions slip-fitting behind said offset mounting plate portions and said first and second bracket flange edge formations wedging against said first and second mounting plate shoulders and thereby releasably mounting said receptacle bracket in position.

5. A receptacle mounting assembly as set forth in claim 4, wherein the inner faces of said mounting flange portions taper downwardly, the outer faces of said mounting flange portions and the exposed edge of said spacing flange lying substantially in a common plane, and the inner faces of said offset mounting plate portions inclining downwardly and inwardly thereby to wedge said mounting flange portions and the exposed edge of said spacing flange against an associated supporting surface.

6. A receptacle mounting assembly as set forth in claim 4, wherein said bracket mounting portion completely covers said mounting plate when the latter is secured to a supporting surface, together with set screw locking means carried by at least one of said offset mounting plate portions and engaging the associated bracket flange portion thereby releasably locking said bracket in mounted position.

7. A mounting assembly for releasably securing a receptacle to a generally vertical supporting surface comprising, in combination, a receptacle carrying bracket having a back wall provided with a rearwardly directed spacing flange extending from the top and opposite side edges thereof, said spacing flange extending downwardly below said back wall at the opposite sides thereof, and inwardly directed mounting flanges extending from said spacing flange, said mounting flanges including opposite side flange portions with downwardly diverging first edge formations and an interposed flange portion with downwardly converging second edge formations, and a mounting plate having a body portion adapted to lie against and be secured to a supporting surface, said mounting plate having offset portions adjacent the opposite sides of said body portion providing downwardly diverging first shoulders and an interposed offset portion providing downwardly converging second shoulders, said bracket

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mounting flange portions slip-fitting downwardly behind said offset mounting plate portions and said first and second edge formations engaging said first and second shoulders, thereby wedging said bracket on said mounting plate, the inner faces of said bracket mounting flange portions tapering downwardly and the inner faces of said offset mounting plate portions inclining downwardly and inwardly, thereby wedging said bracket mounting flanges against an associated supported surface, and set screw means carried by said offset mounting plate portions adjacent the opposite sides of said body portion at points below said bracket back wall and behind said spacing

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flange, said set screw means engaging the associated bracket flange portions thereby to releasably lock said bracket in position on said mounting plate.

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