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WALL FIXTURE SUPPORT

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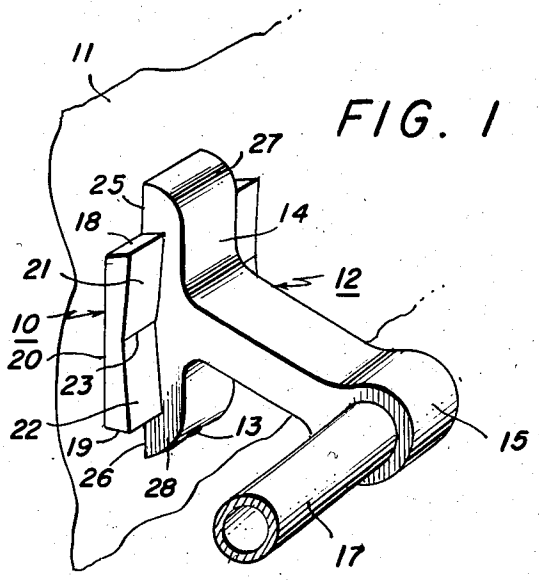


FIG. 1

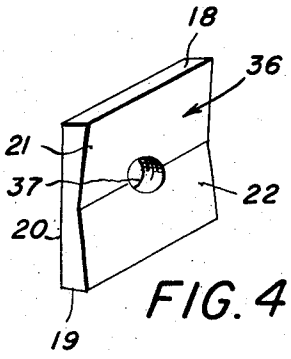


FIG. 4

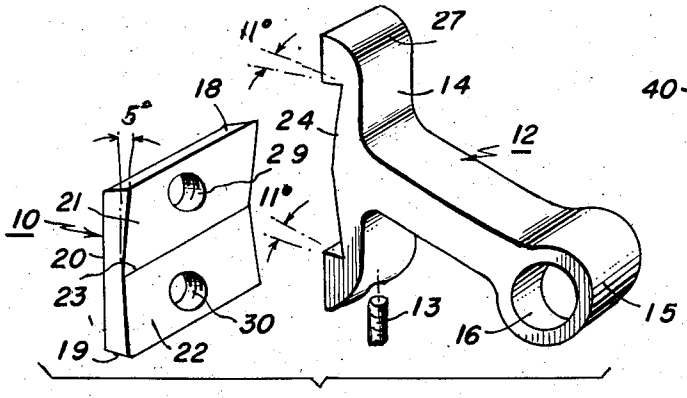


FIG. 2

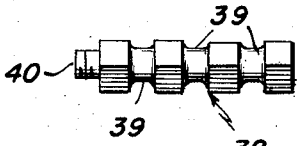


FIG. 5

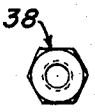


FIG. 6

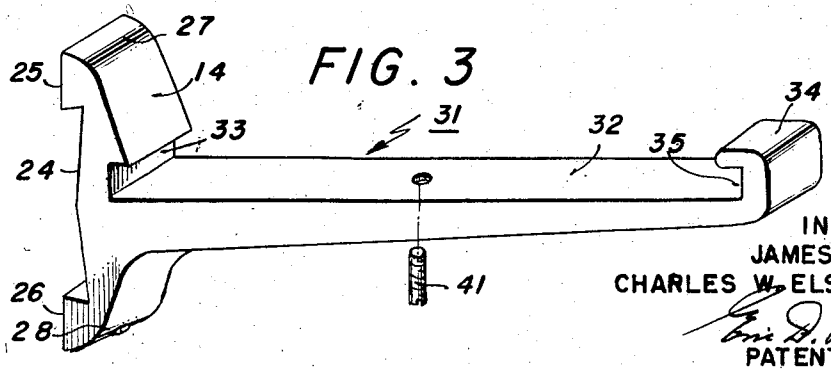


FIG. 3

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WALL FIXTURE SUPPORT

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6 Claims. (Cl. 248—225)

This invention relates to wall fixtures, such as supporting posts or brackets for towel bars, soap dishes, shelves and other or similar accessories, used in bathrooms and the like.

It is a primary object of the present invention to provide a fixture of this type comprising a minimum of parts which can be inexpensively manufactured and readily mounted, even by unskilled persons, whereby the mounted fixture has an attractive appearance.

It is a further object of the invention to provide a two-part fixture made of extruded material, for example, of pieces of light metal, such as aluminum, or any other metal or material to be extruded.

It is another object of the present invention to provide with such fixture a substantially rectangular fastening or mounting plate adapted to be secured to a wall or other rigid member. At least one of the edges of this plate is formed with a bevel having an inclination being outwardly from the rear face of the plate. The front face of the plate is slightly recessed and bordered by two surfaces slightly tapering toward a center zone of the plate where these two surfaces meet along a line which is substantially parallel with respect to the bevelled edge. In addition, the associated fixture post or bracket is provided with a channel of the profile dimensions of this fastening or mounting plate, so that this fixture post or bracket, when seated on the fastening or mounting plate, snuggly engages the faces thereof and can be held firmly thereon after tightening of a clamping means. As a result of this construction, the fixture post is safely secured to the wall or other rigid member engaged by the rear faces of the outer portions of this fixture post which straddle the plate.

It is a still further object of the invention to provide on two opposite edges of this fastening or mounting plate such bevels which, advantageously, have slight inclinations of about 11°. The wedge action of the bevels is increased due to the provision of the slightly tapering surfaces on the front face of the plate.

It is a further object of the invention to provide as clamping means a set screw threaded in one of these straddling portions of the fixture post, whereby this set screw, upon tightening, engages one of the edges of the plate and urges the opposite edge of the plate into intimate engagement with the corresponding adjacent edge in the channel of the fixture post.

It is an additional object of the invention to make the fixture post or bracket narrower than the width of the fastening plate, whereby the position of this post or bracket slid over from one side of the plate may be laterally adjusted thereto, and whereby this fixture post or bracket covers the mounting plate at least at the zone of the fastening means for the wall. Thus, the holes through the mounting plate and the heads of the anchoring bolts threaded therein are concealed by the fixture post or bracket which, nevertheless, is permitted to be displaced somewhat from its position at the center of these holes or bolt heads if such slight adjustments should be necessary. The ends of the mounting plate extend from the sides of the fixture post or bracket, whereby these unconcealed parts of this mounting plate enhance the ornamental and aesthetic appearance of the fixture support, since the sight of the slight inclinations of the bevelled edges and of the slightly tapered front surfaces of this plate please the human eye.

Still further objects and the entire scope of applicability of the present invention will become apparent from the detailed description given hereinafter; it should be understood, however, that the detailed description and specific examples, while indicating preferred embodiments of the invention, are given by way of illustration only, since various changes and modifications within the spirit and scope of the invention will become apparent to those skilled in the art from this detailed description.

In the drawings,

Figure 1 illustrates a perspective view of an embodiment of a fixture support, according to the invention, said support being adapted to hold the end of a towel bar;

Figure 2 is an exploded perspective view of the same embodiment showing the individual unassembled elements of the new fixture support;

Figure 3 is a perspective view of another embodiment according to the invention, i.e., of a bracket support adapted to hold one side or end of a glass shelf, for example, for bathroom use;

Figure 4 shows a perspective view of a fastening or mounting plate according to the invention which is slightly modified with respect to that illustrated in Figure 2;

Figure 5 is a side view of an anchorging bolt to be used to secure the plate of Figure 4 to a wall or other rigid structure;

Figure 6 is a top view of the anchoring bolt in Figure 5.

The fixture support, shown in Figures 1 and 2, comprises a fastening or mounting plate **10** of rectangular shape which can be secured to a wall **11** or any other rigid member, and a fixture post **12** mountable on this plate **10** and held or clamped thereon by means of a set screw **13** located in the foot or straddling portion **14** of this post. The plate **10** and/or the fixture post **12** can be obtained by extrusion from light metal, such as aluminum, or other materials. The free end **15** of the post **12** is formed with a cavity **16** to receive one end of a towel bar **17** in a manner known per se, the other end of which is to be supported by a second fixture post **12**, not shown, or other suitable means.

The rectangular plate **10** has two bevelled edges **18** and **19** opposite and parallel to one another, the inclination of the bevels being outwardly from the rear face **20** engaging the wall **11**. The inclination of these bevels is slight, for example, about 11°. While the rear face **20** of the plate **10** is flat, so as to snuggly engage the normally flat wall surface, the front face of this plate **10** is formed by two converging, substantailly flat surfaces **21** and **22** respectively tapering from the bevelled edges **18** and **19** toward the center zone of the plate **10**. These two surfaces, preferably tapering at the slight angle of about 5°, meet along a line **23** which is in the center of the plate and is parallel to the bevelled edges **18** and **19**. In view of the slight tapering angle of the surfaces **21** and **22**, the line **23** is actually almost invisible on the front plate face.

The foot portion **14** of the fixture post **12** has in its rear a channel or cut-out **24** of practically the same dimensions as the profile of the plate **10**, so that this foot portion **14** can be slid over from one end of the plate **10** and will straddle the latter in close contact thereto. The set screw **13**, seated in a threaded hole in one of the extremities of the foot portion **14**, is applied to the bevelled edge **19** when the screw is tightened and, thereby,

urges the opposite bevelled edge **18** in intimate engagement with its adjacent, corresponding bevelled surface of this foot portion **14**. Since the channel or cut-out **24** in the foot portion **14** has the same shape as the plate **10**, the respective tapering surfaces at the front faces of this plate and in the channel or cut-out **24** will be brought into intimate engagement upon tightening of the set screw **13**, whereby the wedge action, due to the provision of the bevelled edge **18** and of the tapering surface **21** of the plate **10**, increases the clamping force between this plate **10** and the fixture post **12**. At the same time, the rear faces **25** and **26** of the extremities **27** and **28**, respectively, of the foot portion **14** of the fixture post **12** are brought into contact with the wall **11**.

As shown in Figure 2, the plate **10** is provided with two holes **29** and **30**, adapted to receive fastening or anchoring screws or bolts, not shown, by means of which this plate can be secured to the wall **11** or any other rigid structure in a manner known per se. These holes **29** and **30** are countersunk at the front face of the plate **10** to accommodate the heads of the fastening or anchoring screws or bolts, so that these heads will not project from the front face of the plate to interfere with the proper seating of the fixture post **12** on the plate **10**.

The fixture post **12** and its foot portion **14**, forming an integral part thereof, may be narrower than the length of the plate **10**, so that the end portions of the plate **10** may project from both sides of the narrow foot portion **14**, as shown in Figure 1. Due to the pleasing sight of the slightly bevelled edges and of the slight tapering angle of the front surfaces of the plate **10**, the ornamental and aesthetic appearance of the assembled fixture support, illustrated in Figure 1, is enhanced. The foot portion **14** can be displaced on the plate **10** prior to the tightening of the set screw to properly adjust its lateral position when the fixture support is mounted or assembled, i.e., the foot portion **14** is wide enough to permit slight displacements from the center position without uncovering the holes **29** and **30** or the heads of the fastening screws lodged therein, which are to be concealed by this foot portion **14**.

In the embodiment of Figure 3, showing a fixture bracket **31** adapted to support one side of a glass pane or shelf, not shown, the foot portion of the fixture bracket is constructed in the same manner as that in Figures 1 and 2, so that the same reference numerals are used for like parts in Figure 3 as in Figures 1 and 2. The middle or actual shelf-supporting portion **32** of the fixture bracket **31** has a flat upper surface upon which the glass pane or shelf, not shown, is placed. A notch or groove **33** at the foot portion **14** and a bent-over free end part **34**, forming another groove **35**, are adapted to secure the mentioned glass pane or shelf in place on the fixture bracket, so that it cannot slip off. The same kind of fastening or mounting plate **10**, as shown in Figures 1 and 2, may be used for assembling or mounting of the fixture bracket **31** in Figure 3. A set screw **41** in a threaded hole of the shelf-supporting portion **32** of the fixture bracket **31** serves to lock the glass pane or shelf, not shown.

Figure 4 illustrates a modified embodiment of a fastening or mounting plate **36** which may be used for mounting of either of the fixture supports shown in Figure 1, 2 and 3. While the fastening or mounting plate **10** in Figure 2 has two holes **29** and **30** for receiving two anchoring screws or bolts, the plate **36** in Figure 4 has a single, centrally positioned, hole **37** which is advantageously threaded, so that it can be mounted on a correspondingly threaded head of an anchoring bolt. Otherwise, the plate **36** has the same shape as the plate **10** in Figures 1 and 2 and like reference numerals are used for the same parts in Figure 4 as in Figures 1 and 2.

An anchoring bolt **38**, shown in Figures 5 and 6, may be used to secure the plate **36** of Figure 4 to a wall or other rigid supporting structure. This bolt **38** has a hexagonal cross section throughout the greater part of its length. Several circular grooves or notches **39** interrupt the hexagonal configuration to provide for increased frictional contact with the plaster or cement in which the greater part of the bolt is to be embedded. When properly anchored in a wall or the like by such embedding, known per se, the threaded head **40** of the bolt **39** is permitted to protrude from the wall or the like surface. The plate **36** is then threaded on the head **40** which is slightly shorter than the thickness of the plate **36** at the tapped hole **37**. The mounting or assembling of the fixture post or bracket on the plate **36** takes place in the same way as in the embodiments of Figures 1, 2, and 3.

Instead of a fixture post for a towel bar or a fixture bracket for a shelf, as shown and described in the foregoing, any other fixture of this general type may be designed with a foot portion according to the present invention.

We claim:

1. A fixture support comprising a substantially rectangular fastening plate having a front face and a substantially flat rear face, the latter being adapted to engage the face of a rigid member when said plate is fastened thereto, at least one edge of said plate being bevelled and the inclination of said bevel being outwardly from said rear face, said front face being formed with a slight cavity bordered by two surfaces respectively tapering from said bevelled edge and the opposite edge of said plate toward a center zone where said surfaces meet along a line which is substantially parallel with respect to said bevelled edge, a fixture post having in its rear a channel of complementary shape and of substantially the profile dimensions of said plate, and screw means in said fixture post opposite to and cooperating with said opposite edge of said plate to clamp said fixture post on said plate thereby causing a friction fit between the respectively opposite tapering surfaces on said front face of said plate and in said channel of said fixture post and also between said bevelled edge of said plate and the opposite bevelled edge in the complementarily shaped channel of said fixture post.

2. A fixture support according to claim 1, wherein said plate has two of said bevelled edges which are opposite and parallel to one another.

3. A fixture support according to claim 1, wherein the tapering angle of said surfaces with respect to said rear face is about 5°.

4. A fixture support according to claim 1, wherein said fixture post is narrower than the length of said plate so that the latter is only partly covered by said fixture post.

5. A fixture support according to claim 1, wherein means are provided on said plate to fasten it to said rigid member and wherein said means are concealed by said fixture post.

6. A fixture support according to claim 5, said fastening means including at least one hole through said plate.

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