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2,353,365

FIXTURE AND HINGE BRACKET THEREFOR

Filed July 27, 1942

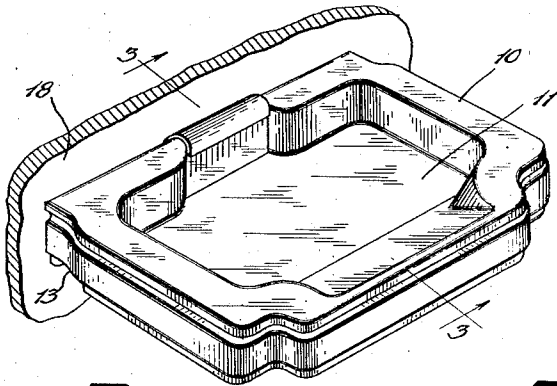


Fig. 1.

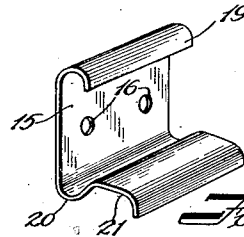


Fig. 4.

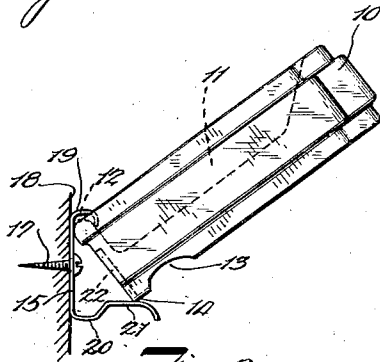


Fig. 2.

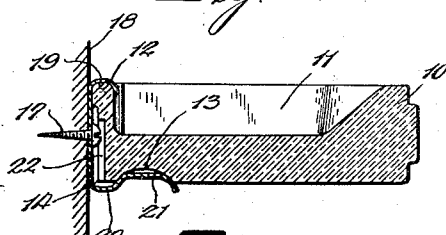


Fig. 3.

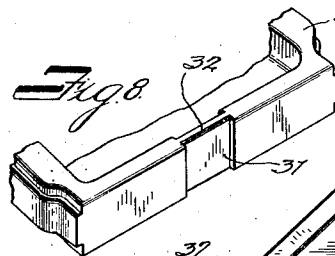


Fig. 8.

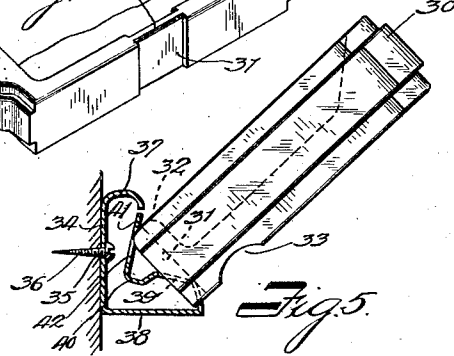


Fig. 5.

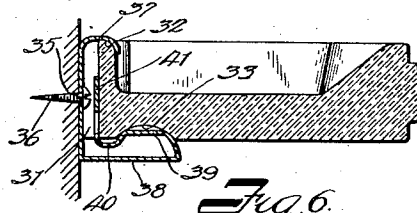


Fig. 6.

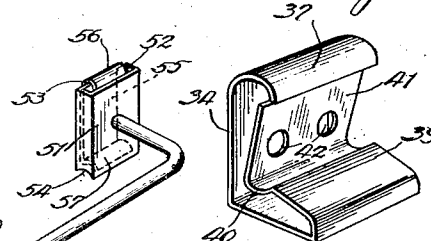


Fig. 7.

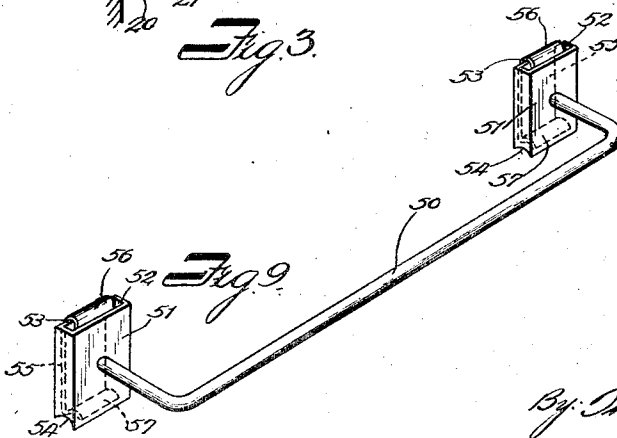


Fig. 9.

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UNITED STATES PATENT OFFICE

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FIXTURE AND HINGE BRACKET THEREFOR

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6 Claims. (Cl. 45—28)

This invention relates to bathroom fixtures and similar articles of the type adapted to be hingedly connected to a wall or similar support, more particularly to fixtures of this character and brackets therefor in which the brackets and the wall-attaching means are substantially concealed when the fixture is installed, and the invention has for an object the provision of an improved fixture and bracket of this character.

Fixtures such as soap dishes, towel bars, tumbler holders and the like, are ordinarily secured to a wall or similar support by brackets which are rigidly attached to the fixture and adapted for securement to the wall by screws or similar fasteners, the entire bracket or brackets and the heads of the screws or fasteners being exposed to view after the fixture is mounted on the wall. Constructions have heretofore been proposed wherein, after installation of the fixture, the heads of the screws or the brackets themselves, or both, are substantially concealed from view, and certain of these prior constructions have been found quite satisfactory from the standpoint of appearance and utility.

One such type of construction in which the brackets themselves are exposed but wherein the screws or securing means are concealed, is disclosed and claimed in the applicant's copending application Serial No. 324,268, filed March 16, 1940, and entitled "Hinge bracket for fixtures." In the construction therein disclosed, a hinge type bracket is provided including a supporting plate having means thereon for attachment to a support, and a cover plate rigidly attached to the fixture and hingedly connected to the supporting plate for swinging movement relative thereto. In order to secure the bracket of this copending application to a wall, the cover plate and the fixture are swung away from the supporting plate so as to expose the securing means, and after securement to the wall may be swung to a position wherein the securing means on the supporting plate are concealed by the cover plate, and latch means are provided for securing the two plates of the hinge in the latter position.

Although the two-piece hinge construction specifically disclosed in this copending application is capable of a wide variety of uses in connection with many types of fixtures, the necessity of attaching one of the plates to the body of the fixture may present difficulties when the body portion of the fixture is formed of glass, plastics, porcelain or similar nonweldable and somewhat frangible materials. Furthermore, it is desirable that the fixture be mounted for ready

removal from the wall or other supporting surface in order to provide for cleaning and sterilization thereof, this being particularly true in connection with fixtures such as soap dishes and toothbrush and tumbler holders, and accordingly it is a further object of this invention to provide a fixture and a hinge bracket therefor wherein rigid securement of the fixture to a portion of the hinge by welding or the like is eliminated; wherein the securing means for the bracket, together with a substantial portion of the bracket itself, are substantially concealed from view; wherein the fixture is readily removable without the use of tools from the supporting bracket for cleaning or sterilizing of the fixture; and wherein the bracket may comprise a one-piece stamped metal element.

In carrying out the invention in one form, a bracket is provided comprising a wall-engaging plate having means for securement to a wall or similar support, an arm extending forwardly from the plate and shaped to provide an open pivot for receiving in hinged or pivotal relation, a portion of the fixture body, and a latch arm extending forwardly from the plate, in spaced relation to the pivot arm, arranged to engage in latching relation another portion of the fixture upon insertion of the first fixture portion into the open pivot and upon pivotal movement of the fixture to a position between the arms. The fixture is provided for co-operation with the bracket, with an upper rear edge portion shaped to form a bearing surface for insertion in the open pivot when the fixture is tilted relative to the wall engaging plate, and a latch-receiving recess is provided in the bottom wall of the fixture adjacent the lower rear edge portion thereof for engagement with the latch arm when the fixture is pivotally moved from the tilted position to a position substantially perpendicular to the supporting plate. In this latter position the fixture is positioned between the arms with the plate and the securing means therefor underlying the rear surface of the fixture for concealment thereby, and with the latch arm extending beneath the bottom wall of the fixture so as to be substantially concealed from view.

For a more complete understanding of the invention, reference may now be had to the drawing, in which:

Fig. 1 is a perspective view showing a soap dish fixture and a hinge type bracket therefor embodying the present invention, mounted on a wall or similar support;

Fig. 2 is a side elevational view of the fixture

and bracket shown in Fig. 1, showing the fixture in tilted position for insertion of a portion thereof into the open pivot of the bracket;

Fig. 3 is a sectional elevational view taken substantially along the line 3—3 of Fig. 1, showing the fixture and supporting bracket in their final assembled position;

Fig. 4 is a detail perspective view of the one-piece bracket illustrated in Figs. 1 to 3, inclusive;

Fig. 5 is a side elevational view somewhat similar to Fig. 2 but illustrating a modified form of fixture and bracket embodying this invention;

Fig. 6 is a sectional view similar to Fig. 3 of the modification shown in Fig. 5;

Fig. 7 is a detail perspective view of the bracket employed in the embodiment of Figs. 5 and 6;

Fig. 8 is a detail perspective view showing the rear wall of the fixture illustrated in Figs. 5 and 6; and

Fig. 9 is a perspective view of a towel bar fixture embodying the present invention.

Referring now to the drawing, the invention is shown in Figs. 1 to 4, inclusive, as embodied in a soap dish fixture having a body portion 10 which is formed of glass, but which may of course be formed of any suitable material such for example as plastics, porcelain or the like. The body portion 10 is provided, as shown, with a central depression or recess 11 for receiving articles to be supported in the fixture, and a rear edge portion of the fixture intermediate the ends of the body portion is shaped, as shown, to provide a bearing portion 12 having a substantially cylindrical or uniformly curved surface. Formed in the bottom wall of the soap dish, as shown best in Figs. 2 and 3, is a longitudinally extending latch-receiving recess 13 which is located adjacent the lower rear edge of the body portion 10.

As shown best in Fig. 4, the fixture supporting bracket comprises a wall-engaging, substantially vertically extending plate 15 which is provided with apertures 16 for receiving screws 17 (Figs. 2 and 3) or other suitable fasteners, by means of which the wall-engaging plate is secured to a suitable wall or support 18. Adjacent its upper edge, the plate 15 is provided with a forwardly and downwardly extending arm 19 which is curved, as shown, so as to provide an open bottomed pivot into which the bearing portion 12 of the fixture 10 may be inserted by tilting the fixture 10 to the position shown in Fig. 2.

Extending forwardly from the lower edge of the wall-engaging plate 15 is a second arm which includes an upwardly curved portion 20 and a downwardly curved latching portion 21, the upper surface of which is substantially flat, as shown best in Figs. 2 and 3. When the soap dish or fixture 10 is in the tilted position shown in Fig. 2 for insertion of the bearing portion 20 thereof into the open bottomed pivot arm by the arm 19, the lower rear edge portion 14 of the soap dish rests on the flat upper surface of the latch portion 21. Upon the downward swinging or pivoting movement of the soap dish 10 from the position shown in Fig. 2 to the position shown in Fig. 3 wherein the soap dish extends substantially perpendicular to the supporting wall 18, the lower edge portion 14 rides on the flat upper surface of the latching portion 21. This flat portion forms a camming and guiding surface which retains the bearing surface 12 in the open sided pivot and guides the soap dish during pivotal movement into the position shown in Fig. 3, the lower arm of the bracket being depressed during this movement of the soap dish so that when

the soap dish reaches the position shown in Fig. 3 the latch portion 21 will snap into the latch-receiving recess 13 and the rear edge portion 14 of the soap dish will be received within the curved portion 20 of the latch arm.

In this position the soap dish will be securely held in the desired relation to the supporting bracket between the pivot arm 19 and the latch arm 21, the opposite edges of the latch portion being shaped so as firmly to engage the walls of the latch-receiving recess 13. In this position the rear surface of the soap dish overlies the plate 15 and substantially conceals it from view, suitable slots 22 in the rear wall of the soap dish being provided for receiving the heads of the screws 17. The latch arm comprising the portions 20 and 21 extends forwardly beneath the soap dish and is consequently substantially concealed from view, so that when the soap dish is properly mounted on the wall in its bracket only the upper surface of the forwardly extending arm 19 is exposed to view.

Preferably the wall-engaging plate and its forwardly extending arms are formed from sheet metal of relatively thin gauge so as to provide sufficient resilience to accomplish the above-described latching, and accordingly it will be apparent that the rear wall of the soap dish 10 is supported in its bracket substantially flush with the wall or similar support 18 upon which it is mounted. Of course, if the body portion of the soap dish 10 is formed of transparent or translucent material, the heads of the screws 17, together with the wall-engaging plate 15 and the portions 20 and 21 of the latch arm, will be visible therethrough, and if desired the corresponding portions of the rear and bottom surfaces of the body 10 may be plated or coated with an opaque material so as to conceal these supporting members from view and provide a pleasing decorative effect. Furthermore, it may be desirable in some constructions to provide a metal insert shaped to extend across the rear wall of the soap dish and provide the desired bearing and latching surfaces on the upper and lower edge portions respectively. Such an insert could of course be readily molded into the material of the body portion at the time the body portion is formed.

In the embodiment of this invention shown in Figs. 5 to 8 inclusive, the soap dish 30 is substantially identical with the soap dish 10 of the previously described embodiment except that the rear surface thereof is substantially flat and is provided, as shown best in Fig. 8, with a vertically extending slot 31 which terminates at its upper edge in a bearing surface 32, and the lower edge of which is spaced a desired distance from a latch-receiving recess 33 formed in the bottom of the soap dish 30. In this embodiment of the invention, the bracket for receiving this soap dish comprises a wall-engaging plate 34 similar to the plate 15 which is provided with suitable apertures 35 for receiving screws or similar fasteners 36 in order to provide for securement of the bracket to a wall or similar support.

Adjacent its upper edge the plate 34 is provided with a curved arm 37, similar to the arm 19, which provides an open bottomed pivot, and at its lower edge the arm 34 is provided with a substantially flat forwardly extending latch arm 38 which is reversely bent, as shown in Figs. 5, 6, and 7, to provide a rearwardly extending latch portion 39 and a curved edge-receiving portion 40 similar

to the portions 21 and 20, respectively, of the previously described embodiment.

In this embodiment of the invention the curved portion 40 is provided with an upwardly extending terminal portion 41 which extends in front of the plate 34 and is provided with suitable apertures 42 through which access may be had to the heads of the screws 36. When the portions 39, 40, and 41 of the supporting bracket are in the relative positions shown in Figs. 5 and 7 prior to insertion of the soap dish into the bracket, a screw driver or similar tool may be inserted through the apertures 42 so as to drive the securing screws 36 into the supporting wall and thus properly secure the plate 34 to the wall. By tilting the soap dish 30 the bearing portion 32 formed at the upper edge of the slot 31 may be positioned for insertion, as shown in Fig. 5, into the open bottomed pivot formed by the arm 37, and moved inwardly and upwardly so as to move the portion 41 rearwardly, whereupon the lower edge portion of the slot 31 will rest on the flat upper surface of the portion 39 of the latch arm 38. Tilting or pivotal movement of the soap dish 30 from this inserted position will cause the lower edge portion of the slot 31 to ride inwardly over the portion 39 of the latch arm and depress the portions 39, 40 and 41 until the soap dish 30 reaches the position shown in Fig. 6, whereupon the latch portion 39 will snap into the latch-receiving recess 33 so as securely to latch the soap dish in the position shown. It will be observed that downward movement of the portion 41, upon insertion and pivoting of the soap dish, causes the apertures 42 therein to move to a position wherein they are offset from the heads of the screws 36, as shown in Fig. 6, and accordingly even though the body portion of the soap dish 30 is formed of transparent material, the heads of the screws will be concealed from view, the apertures 42 being relatively inconspicuous inasmuch as the plate 34 and the portion 41 will be formed of the same material.

Since the slot 31 in the rear wall of the soap dish 30 is of a width substantially equal to the length of the wall-engaging plate 34, it will be apparent that the plate will nest within this slot when the soap dish is in the position shown in Fig. 6, so that the rear surface of the soap dish will abut the supporting wall in substantially flush engagement therewith. It will of course be understood that the wall-engaging plates 15 and 34, as well as the arms extending therefrom, may be of any desired length in order to provide proper support for the fixture, and of course a plurality of supporting brackets may be employed if desired.

In the embodiment of the invention shown in Fig. 9, the fixture is in the form of a towel bar comprising a U-shaped bar 50 which is secured at its opposite ends to suitable supporting blocks 51, each of the blocks being provided with a slot 52 in the upper surface thereof and having the rear edge portion of the slot formed to provide a bearing surface 53. Likewise, each of the blocks 51 is provided with a latch-receiving recess 54 in the bottom wall thereof. Co-operating with each of the supporting blocks 51 is a one-piece hinge bracket comprising a wall-engaging plate 55 having a curved arm 56 at the upper end thereof, providing an open bottomed pivot for receiving the bearing surface 53 on the supporting block, and having a latch arm 57 extending forwardly from the lower edge for latching engagement in the latch-receiving recess 54. In order to mount the

towel bar in its supporting brackets, it is necessary only to tilt the towel bar so that the supporting blocks 51 are in tilted relation to the wall-engaging plates 55, whereupon the bearing surfaces 53 may be inserted into the open bottomed pivots and the towel bar swung or tilted to a substantially horizontal position wherein it will be retained by the latch arms 57. Removal of the soap dishes 10 and 30 or of the towel bar 50 from their respective supporting brackets for the purposes of cleaning or sterilization can, of course, be accomplished simply by exerting a sufficient upward pressure on the front edges thereof to tilt the fixture body portions upwardly, or if desired the outermost ends of the latch arms may be manually grasped and depressed so as to readily permit such upward tilting movement without the exertion of any great force on the body portion of the fixture.

While I have shown particular embodiments of my invention, it will be understood, of course, that I do not wish to be limited thereto since many modifications may be made, and I, therefore, contemplate by the appended claims to cover any such modifications as fall within the true spirit and scope of my invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A bracket comprising a wall engaging plate having means for securing said bracket to a wall, an arm extending forwardly from said plate on one side of said securing means and shaped to provide an open pivot for receiving in pivotal relation an edge portion of a fixture, and a second arm extending forwardly from said plate on the opposite side of said securing means including a reversely bent rearwardly extending resilient portion having a terminal portion extending in front of said securing means, said terminal portion having an aperture therein to permit access to said securing means, said rearwardly extending portion being engageable by an opposite edge portion of said fixture for depression thereby upon insertion of said first mentioned edge portion into said open pivot and pivotal movement of said fixture to a position between said arms, said terminal portion upon depression of said rearwardly extending portion being moved to a position wherein said aperture is offset from in front of said securing means to conceal the same, said rearwardly extending portion when depressed latching said fixture in said position between said arms.

2. In combination, a fixture comprising a body having a rear edge portion shaped to provide a bearing surface and having a latch receiving recess in the bottom wall thereof adjacent an opposed rear edge portion, the rear wall of said recess meeting said bottom wall in an abrupt edge, and a supporting bracket for hingedly receiving and for removably supporting said fixture body comprising a wall engaging plate having opposed arms extending forwardly therefrom, said opposed arms including inwardly extending portions respectively forming an open pivot on one arm and a latch portion on the other arm spaced apart a distance less than the distance between said rear edge portions of said fixture, said fixture body upon insertion of said bearing surface into said open pivot being hingedly connected to said bracket for pivotal movement therein, said opposed rear edge portion engaging said latch portion during such pivotal movement to spread said arms and permit said fixture body to swing into a position therebetween, said latch portion when

said opposed edge portion swings therebeyond snapping into said latch receiving recess over said abrupt edge firmly to support said fixture between said arms.

3. In combination, a fixture comprising a body having an upper rear edge portion shaped to provide a bearing surface and having a latch receiving recess in the bottom wall thereof in spaced relation to an opposed rear edge portion, the rear wall of said recess meeting said bottom wall in an abrupt edge, a wall engaging plate having opposed arms extending forwardly therefrom to receive said fixture body therebetween, one of said arms being shaped to form an open pivot into which said bearing surface is insertable with said fixture in tilted relation to said plate, said other arm being depressible by said opposed edge portion as said fixture is swung in said pivot to a position substantially perpendicular to said plate and having a latch portion for snapping into said latch receiving recess over said abrupt edge to support said fixture firmly on said plate in said substantially perpendicular position.

4. In combination, a fixture comprising a body having a rear edge portion shaped to provide a bearing surface and having a latch receiving recess in the bottom wall thereof adjacent an opposed rear edge portion, the rear wall of said recess meeting said bottom wall in an abrupt edge, a wall engaging plate having opposed arms extending forwardly therefrom to receive said rear edge portions therebetween, one of said arms forming an open pivot into which said bearing surface is insertable with said fixture tilted relative to said plate, the other of said arms having a cam surface engaging said opposed edge portion in said tilted position for guiding said fixture to a position between said arms as said fixture is swung from said tilted position, said other arm forming a latch for snapping into said latch receiving recess over said abrupt edge firmly to support said fixture in a desired position relative to said plate when said fixture is swung to said desired position.

5. In combination, a fixture comprising a body portion having a rear upper edge thereof shaped

to form a bearing surface and having a latch receiving recess in a bottom wall thereof adjacent a rear lower edge, the rear wall of said recess meeting said bottom wall in an abrupt edge, a substantially vertically disposed wall engaging plate having means for securement to a supporting wall, an arm extending from the upper edge of said plate shaped to form an open bottomed pivot for receiving said bearing surface, a second arm extending from the lower edge of said plate having a portion spaced from said first arm insufficiently to permit insertion of said bearing surface into said pivot except by tilting of said fixture, said portion of said second arm being depressible by said rear lower edge as said body portion is swung downwardly from said tilted position, and said second arm having a latch portion for snapping into said latch receiving recess over said abrupt edge firmly to support said fixture in a position wherein said plate and said second arm are substantially concealed by said fixture body portion upon swinging movement thereto.

6. A fixture comprising a body portion having a longitudinally extending flat rear surface, a vertical transversely extending slot in said rear surface terminating at its upper edge in a portion shaped to provide a bearing surface, a latch receiving recess in the bottom wall of said body portion adjacent the lower edge of said slot, a wall engaging plate having a width less than the width of said slot and having means for securement to a wall and an arm extending from an upper edge thereof shaped to provide an open pivot for receiving said bearing surface with the rear surface of said body in tilted relation to said plate, a second arm extending from said plate having a latch portion for releasably engaging in said latch receiving recess upon insertion of said bearing surface in said open pivot and movement of said body portion from said tilted position to a position in which said rear surface is closely adjacent said wall and said plate is substantially enclosed within said slot for concealment thereby.

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