

March 12, 1940.

W. J. WEISSERT

2,193,680

SINK BOWL CONSTRUCTION

Filed Aug. 20, 1938

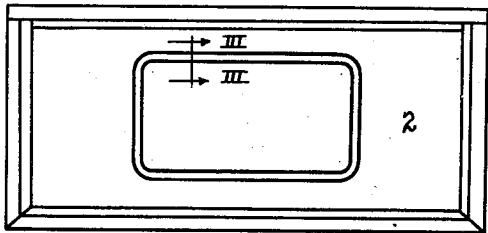


Fig. I.

Fig. II.

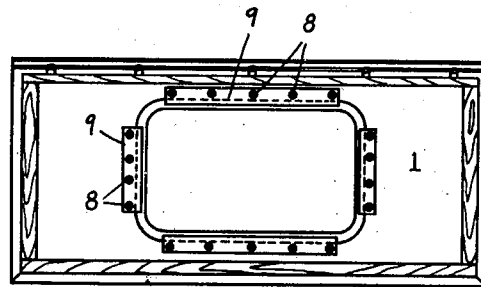


Fig. III.

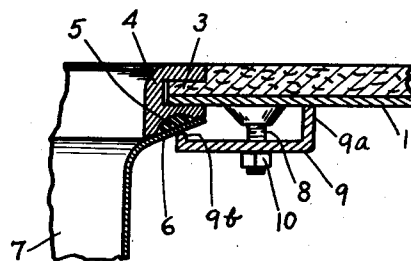
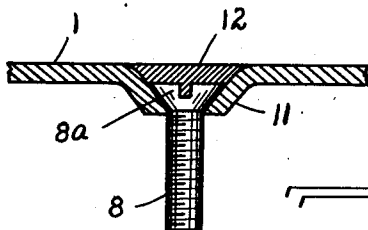


Fig. IV.

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UNITED STATES PATENT OFFICE

2,193,680

SINK BOWL CONSTRUCTION

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Application August 20, 1938, Serial No. 225,919

2 Claims. (Cl. 4—189)

This invention relates to an improvement in the drain boards of sinks.

The object of the invention is to improve the attachment of a sink basin in dependent position with respect to the opening in the body of the drain board at which the basin is mounted.

In the drawing, Fig. I is a plan view of a sink drain board, showing the drain board proper, and a basin mounted thereon; Fig. II is a bottom plan view of the drain board assembly, showing the attachment of the basin to the body of the drain board; Fig. III is a cross-sectional detail view taken on the section line III—III of Fig. I, and showing the basin-attaching means on an enlarged scale; Fig. IV is a cross-sectional detail view, showing in further enlargement one of the elements of the basin-attaching means which are secured directly to the body, or base, of the drain board.

The general assembly herein shown and described is that of United States Patent No. 2,038,638, issued April 28, 1936, to Eugene E. Brey. In the general assembly reference numeral 1 designates the base of the drain board, which preferably is sheet metal, or other relatively rigid material, covered on its upper surface by a facing 2 of linoleum, or other suitable non-metallic material less rigid than the material of the drain board base, cemented to the base. The non-metallic covering is rabbetted at 3, and a U-shape metallic bar 4 lies in the rabbetting, and embraces both the covering 2 and the base 1. This bar is channeled on its under surface, and contains packing 5 against which the flange 6 of the basin 7 lies.

My improvement to the drain board assembly resides in the means for engaging the sink basin in mounted position. Such means comprise bolts 8, so integrated with the base 1 that their shanks project beneath the under surface thereof. As will be seen in Fig. II of the drawing, a row of bolts 8 lies along each side of the basin, in a position adjacent the edges of the base. In assembly, perforate angle bars 9 are so positioned that the edge of the flange 9a of the bar lies against the under surface of the drain board base, with the body of the angle bar bearing at its edge against the under surface of the basin flange 6. As shown, one of the angle bars is placed along each row of bolts, with the bolt shanks projected through the perforations of the angle bar. Desirably, as shown, a short up-turned flange 9b is formed at the edge of the angle bar body, and makes direct contact with the basin flange. Nuts 10 run on the shanks

of the bolts projected through the angle bars 9, and may be tightened to cause each of the angle bars to bear vertically against a flange 6 of the basin.

It has been previous practice, as shown and described in the prior patent to which reference has been above made, to utilize a plurality of independent clamps to secure the basin in mounted position, each clamp being mounted on a bolt shank, and bearing against the basin flange under the influence of a nut associated with it. Such structure applies relatively great tightening force at the separated points in which the individual clamps lie, and such force tends to crack the enamel on porcelain covered basins. It is undesirable to employ any form of cushioning means between the basin flange and the clamping means in such exposed position, so that preservation of the sink basin requires the use of clamping means of such structure that clamping pressure may be uniformly distributed, firmly to engage the sink basin in its mounted position. By using elongate clamping bars, each cooperative with a plurality of bolts and nuts, and having an extended line of contact with the basin flange, it is possible firmly to secure the sink basin in mounted position by exercise of uniformly distributed pressure which is at all points moderate.

In the basin engaging structure it has been found that securing the clamping bolts to the base of the drain board by welding, or by counter-sinking a tapered bolt head merely in the thickness of the metal, does not provide security of the highest order. Nor is it wholly desirable that the heads of the bolts lie upon the upper surface of the drain board base, with the bolt shanks extending therethrough. In order both firmly, and otherwise desirably, to secure the bolts with the drain board base, the base is regionally deformed downwardly to provide rows of dependent frusto-conical nipples 11, each open at its apex. As shown in Fig. IV of the drawing, the head 8a of the bolts 8 lie in these nipples, with the bolt shanks projected therefrom. If, as is desirable, the bolt heads and the interior surface of the nipples are correspondingly tapered, the bolts heads fit closely in the nipples. In any case, however, the space surrounding and lying above the head of each bolt is filled with a filling body 12 of a bonding material, such for example as a suitable hard solder, and the upper surface of the filling is smoothed off to the plane of the upper surface of the base. This structure gives a secure integration of the clamp-

ing bolts with the base of the drain board, without projection of the bolt heads above the upper surface of the base.

While the drain board structure is shown, and 5 has been described, as being composite of a sheet metal base and a non-metallic covering therefor, it is to be understood that the basin-engaging means herein shown and described may be applied to uncovered metallic drain boards, or to 10 drain boards of various suitable materials, such as laminated wood, fiber board, plastic materials, and the like. If the drain board consists primarily of uncovered sheet metal, it is desirable that the clamping bolts be inserted and soldered in position before the upper surface of the 15 drain board has applied thereto its finishing surfacing of chromium, nickel, or the like. If the drain board base, or the drain board as a whole, consist of a non-metallic material which may not be deformed to provide the nipples 11, the nipples may be separately formed, either individually, or in a connected row, as flanged metallic 20 structures attachable to the drain board base to depend from its under surface. It should be understood that the threaded engagement between the bolt shanks and nuts, in common manner, is not necessary, as equivalent pressure exerting means may be associated with bolts the shanks of which are unthreaded.

30 In describing the advantages of a clamping bar as compared with individual clamps, the avoid-

ance of cracking the enamel from a porcelain enameled basin has been considered. The same problem exists also if the basin be formed of some molded plastic material, or formed as a whole of glass or other vitreous substance, or composition. 5

I claim as my invention:

1. In a drain board assembly for sinks the combination of a drain board having a basin opening therein, a flanged basin having its flanges positioned at the under surface of the 10 drain board surrounding the basin opening, elongate metallic clamping bars angular in cross-section and perforate for the passage of bolts bearing each at one terminal edge against the under surface of the drain board and at its other 15 terminal edge against the basin flange, and bolts projected from the under surface of the drain board through the clamping bars and spaced so closely together that pressure exerted on the clamping bars by nuts in the regions of the bolts 20 projected therethrough is distributed with approximate uniformity along the length of contact between each clamping bar and the structure of the basin flange.

2. A drain board assembly according to the 25 definition of claim 1 in which the bolts are attached to the drain board by nipples extended from the under surface of the drain board, in which nipples the heads of the bolts are bonded. 30

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