May 22, 1956 V. W. WALTZ 2,746,062

APPARATUS FOR MOUNTING CLAMP-DOWN SINK FRAMES

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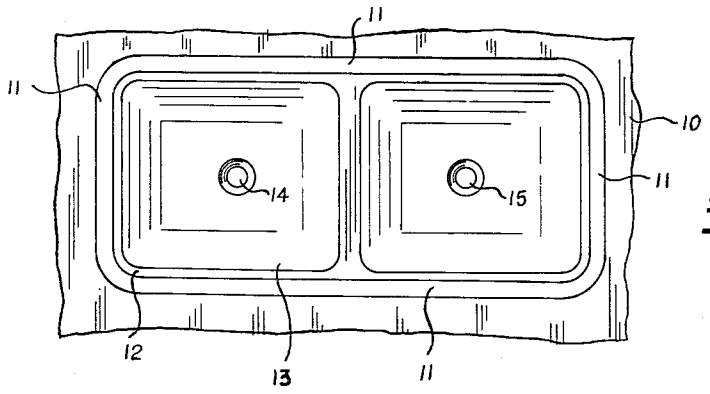


Fig-1

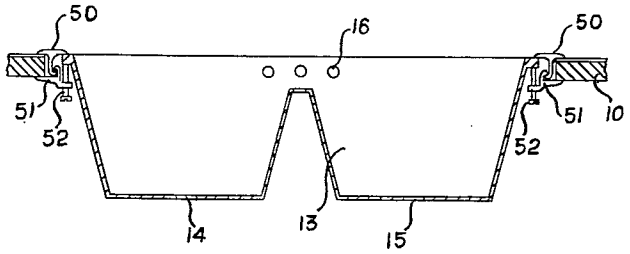


Fig-3

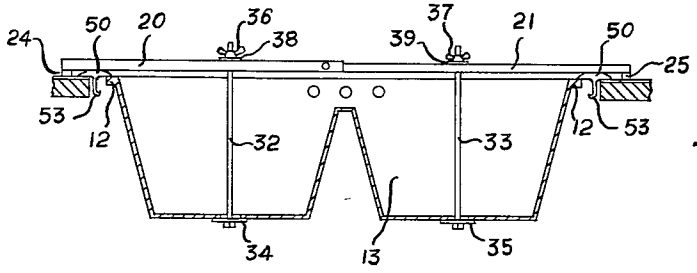


Fig-2

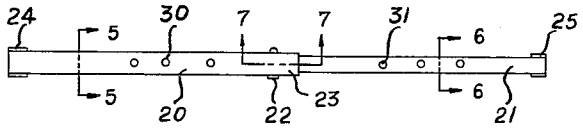


Fig-4

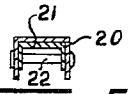


Fig-5



Fig-6

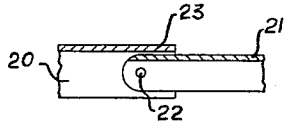


Fig-7

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APPARATUS FOR MOUNTING CLAMP-DOWN SINK FRAMES

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4 Claims. (Cl. 4—187)

This invention relates in general to an improved method and means for mounting sinks and the like employing a clamp-down type of frame or ring. In a more limited aspect it relates to an improved arrangement for forming a readily mountable sink assembly, and to the assembly so formed. Clamp-down sink frames are found to possess many desirable design features in that they form water tight joints with the surrounding cabinet work; are sanitary, since no cracks or crevices are present between the sink and drain board; may be mounted substantially flush with the surface of the drain board; and have a pleasing ornamental appearance. However, by their nature they are required to be mounted in an aperture larger than the sink itself and thus require some means for supporting the heavy sink assembly until the clamps can be positioned and tightened.

Heretofore, the mounting of such sinks has generally required the services of more than one worker and has been laborious and time consuming. As is known to those skilled in the art, the sink has to be positioned and retained in precisely the proper position in order to keep from dislodging the frame while the clamp-down means is being installed in the limited working space. In some cases the use of nails or other fasteners driven into the exposed edge of the drain board and mounting adjustable lugs, has been practiced. However, with a thin drain board insufficient adjustment often results and in addition the drain board may be split, especially when such nails are driven along the grain of a wooden structure or along the lamination of a plywood structure. Further difficulties encountered by the worker in this art will be noted as the description proceeds.

In contrast, my invention has as an object the provision of a simple and reliable means and method for mounting clamp-down sinks safely and expeditiously and which may be employed by a single worker.

A second object is to provide a readily mountable sink assembly having a clamp-down frame or ring surrounding the sink rim.

A third object is to provide a readily mountable self-levelling sink assembly with a clamp-down frame or ring caulked to the sink rim.

A fourth object is to proivde a simple and inexpensive, reusable mounting attachment for use in mounting sinks having clamp-down frames.

Other objects and advantages will become more apparent as the following description is considered in conjunction with the accompanying drawings in which—

Fig. 1 is a plan view showing the relation of the sink to be mounted with respect to the apertured supporting drain board.

Fig. 2 is a sectional view showing the mountable sink assembly in place within the supporting framework and before attachment of the clamping means.

Fig. 3 is a sectional view showing the completed installation.

Fig. 4 is a plan view of one form of mounting device.

Fig. 5 is a section taken on line 5—5 of Fig. 4.

Fig. 6 is a section taken on line 6—6 of Fig. 4, and

Fig. 7 is a section taken on line 7—7 of Fig. 4.

Referring first to Fig. 1, there is shown a typical drain board 10 having an aperture cut therein with a substantially uniform space 11 provided between the edge of the aperture and the periphery of a flat rim 12 on the domestic type sink 13 which is to be mounted upon the drain board. The sink may be of any conventional type, a two basin sink being used for illustration and having drain holes 14 and 15 and the usual back wall openings 16 for attachment of the water pipes and faucets. In some cases, when using the larger size enamelled iron sinks, the weight of the sink alone may be in the order of 175 pounds and a formidable problem is presented to a single worker when attempting to mount the sink without assistance from another worker. Moreover, even with two workers a laborious procedure is required to mount the sink in a conventional manner.

In the patent to Drain—2,440,741 the suggestion is advanced that such a sink may be rested upon adjustable supporting lugs fastened to the edge of the drain board. Experience, however, has shown that this solution has many drawbacks. Since the space 11 must be small enough to be spanned by the clamp-down frame, it normally is not more than two inches wide. As a consequence the worker must be extremely careful in depositing the heavy sink upon any supporting lugs lest his fingers be trapped between the edge of the sink rim and the edge of the drain board.

Moreover, it is customary in building the framework supporting the drain board to provide cabinets under the drain board with a cabinet wall closely spaced to the edge of the aperture in order to give a substantial support to the heavy sink, and to avoid any sagging of that drain board. The presence of the cabinet wall in close proximity to the downwardly extending side of the sink results in very limited working space for adjusting of the necessary sink levelling means employed with the supporting lugs.

Furthermore, it is desirable to have the sink rim and clamp-down frame substantially level with respect to the drain board prior to attaching the clamp-down fastening members or clamps. Frequently a caulking compound is used under the edges of the sink frame to provide a sanitary water tight joint between that frame and the drain board as well as between the frame and the sink rim. When using such a compound an improved joint can be provided if the several parts of the assembly are level prior to beginning the clamping operation and are not disturbed during the clamping operation.

With these considerations in mind, reference is made to Figs. 4 and 7 showing one form of a suitable sink mounter for use in my invention. This mounter may conveniently consist of two elongated channel iron bars 20 and 21 pivoted adjacent one end as by means of a transverse pin 22. Bar 21 preferably is smaller in cross section than its companion bar and is adapted to nest therein when not in use. At the point of junction of the two bars the pin 22 is preferably so located as to permit bar 21 to turn downwardly, Fig. 7, without engagement with the enclosing bar 20, but when turning upwardly to engage with the bar 20 along an appreciable length 23 in order to provide a rigid structure.

At its extreme ends the sink mounter is provided with cushion members 24 and 25 of any suitable material and configuration. Preferably these members are composed of a somewhat resilient material such as rubber, plastic or the like and serve a dual purpose during the mounting of the sink assembly. Firstly, they are so dimensioned as to rest upon the drain board and to level the supported sink assembly with respect to that drain board as shown in Fig. 2. Secondly, they are of a material which will not scratch or mar the surface of the drain board.

Each of the bars of the sink mounter are provided with a series of apertures **30, 31** adapted to receive one of a sink connecting means **32, 33** respectively. These means conveniently may comprise simple elongated carriage bolts adapted to pass through large washers **34, 35** disposed beneath the sink drain holes **14** and **15**. For demountably fastening the bolts to the mounter, conventional wing nuts **36, 37** may be employed, backed by small washers **38, 39** respectively. It will be understood that when the sink has only one drain hole a single bolt will be used.

Furthermore, it is intended that other types of sink mounters may be used without departing from the broader aspects of the invention, provided a self-levelling feature and an attachment to the sink interiorly of the peripheral clamp-down frame is utilized. For example, in lieu of the single elongated member **20—21**, as shown, a spider member or a member having transverse supporting means so as to engage the drain board at three, four or more points of suspension may be used.

With the mounter as described, my invention may be practiced in the mounting of clamp-down sink frames of the type exemplified by the aforementioned Drain patent, in the following manner. The bolts **32** and **33** are passed through washers **34** and **35** with the sink resting upon the floor. The peripheral clamp-down frame **50**, which generally is of one endless piece shaped to fit the sink rim, is prepared on its under sides with the desired caulking compound and is then fitted upon the sink rim **12**. Thereafter, with the sink and frame in readiness, the supporting mounter is placed diametrically across the frame with the cushions **24** and **25** extending beyond the frame. The bolts are passed through the appropriate apertures and the wing nuts tightened to place appreciable tension upon the mounter and thus to hold the frame **50** securely upon the sink rim. In so doing a rigid mountable sink assembly forming an essential part of my invention is formed. By grasping the supporting mounter, the unaided worker may then lift the assembly into the position within the drain board as shown in Fig. 2.

At this time the caulking compound contacts the edge of the apertured drain board and the sink assembly rests level with the upper surface of that drain board. With the assembly thus positioned a plurality of conventional clamps **51** having adjusting bolts **52** extending therethrough are mounted upon the hook **53** of the clamp-down frame **50** and spaced at appropriate locations along the clamp hook. As the several bolts are tightened the clamps **51** press against the lower surface of the drain board and pull the frame **50** downwardly by their engagement with the hook **53**. At the same time the bolts **52** press upwardly against the lower edge of the sink rim **12** and downwardly against the clamp **51** which is constructed so as to pivot upon the engaging hook **53**. This action clamps down the frame **50** and helps also to distribute the caulking compound to provide a tight and uniform seal.

Following completion of the above described steps, the nuts **35** and **36** are released whereupon the bolts and washers are removed and the supporting mounter is detached from the mounted sink. The mounter and associated means may then be employed for subsequent sink mounting operations and in the forming of additional mountable sink assemblies. Experience has shown that by following the above procedure a single worker can complete the mounting of an average domestic sink in about 15–20 minutes and, without danger of damaging the drain board or harming his fingers. Moreover, due to the self-levelling characteristic of the assembly it is unnecessary to spend time making an adjustment of the assembly in a limited cramped space.

As many changes can be made in the above method and apparatus, and many apparently widely different embodiments can be made without departing from the scope of the claims, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. In combination, a mountable sink assembly comprising, a sink having a drain aperture in the bottom thereof, a sink rim, a clamp-down frame resting upon said rim, a mounting member extending across the sink and resting inboard of each end upon the top of said frame, connecting means extending through said drain aperture for anchoring against the sink bottom, means for detachably anchoring said connecting means to said mounting member intermediate the ends of said member and means for exerting pressure upon said connecting means and drawing said mounting member against said frame with sufficient force to form the sink and frame into a rigid mountable assembly.

2. In combination, a self-levelling mountable sink assembly comprising, a sink having a drain aperture in the bottom thereof, a sink rim, a clamp-down frame resting upon said rim, a mounting member extending across the sink and resting inboard of each end upon the top of said frame, the ends of said member extending beyond said frame and having levelling cushions adapted to rest upon the surrounding support in which said assembly is mounted, connecting means extending through said drain aperture for anchoring against the sink bottom, means for detachably anchoring said connecting means to said mounting member intermediate the ends of said member and means for exerting pressure upon said connecting means and drawing said mounting member against said frame with sufficient force to form the sink and frame into a rigid mountable assembly.

3. For use in mounting sinks and the like having a peripheral clamp-down frame resting upon the rim of the sink, an elongated mounting member adapted to rest inboard of each of its ends upon the frame, a connecting means adapted for attachment at one end to the bottom of the sink and at the other end to said mounting member intermediate the ends of said mounting member, and means for exerting pressure upon said connecting means and for drawing said attached mounting member against said frame with sufficient force to form the sink and frame into a rigid mountable assembly.

4. For use in mounting sinks and the like having a peripheral clamp-down frame resting upon the rim of the sink, an elongated mounting member having levelling means at the ends thereof, said member being adapted to rest upon the frame inboard of said ends, a connecting means adapted for attachment at one end to the bottom of said sink and at the other end to said mounting member intermediate the engagements of said member with said frame, and means for exerting pressure upon said connecting means and for drawing said attached mounting member against said frame with sufficient force to form the sink and frame into a rigid mountable assembly.

No references cited.