Feb. 10, 1953 H. D. DRAIN 2,627,609

SINK MOUNTING

Filed Feb. 1, 1949 2 SHEETS—SHEET 1

Fig. 1

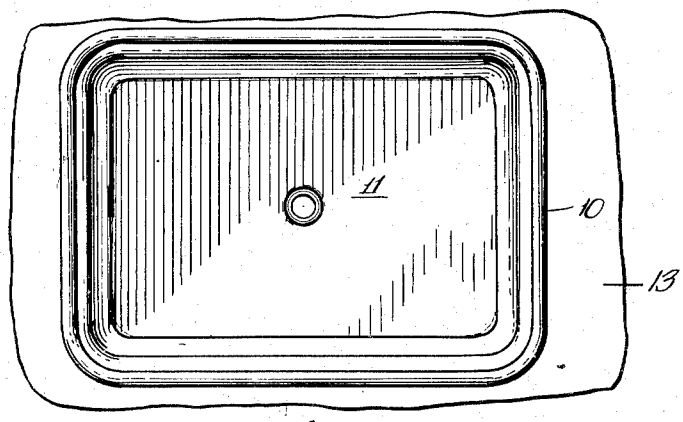


Fig. 2

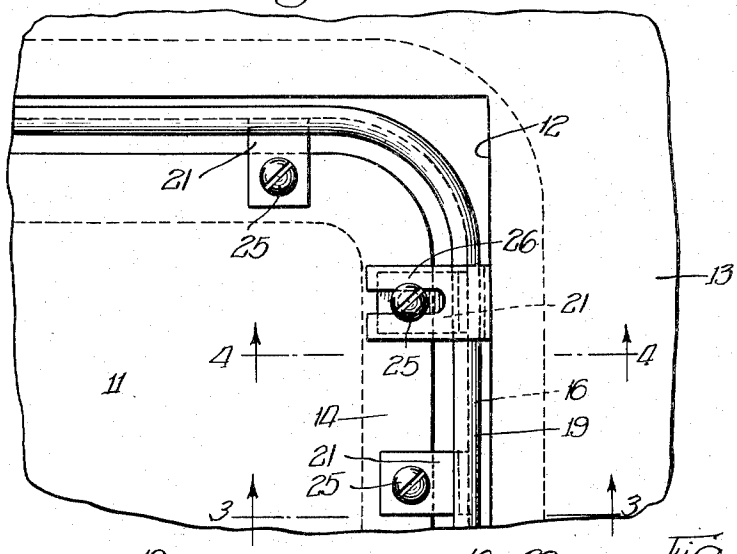


Fig. 3

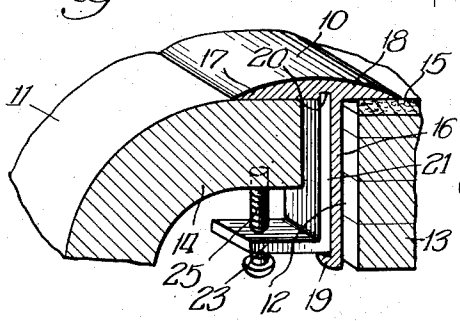
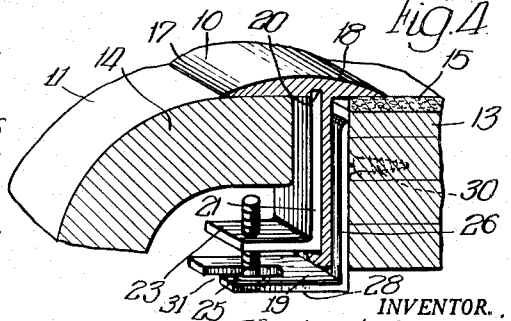


Fig. 4



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Fig. 6

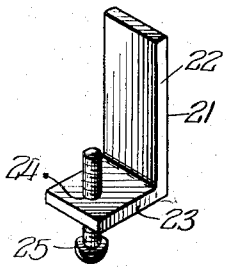


Fig. 5

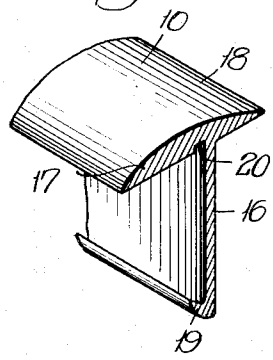


Fig. 7

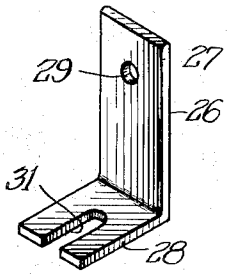


Fig. 8

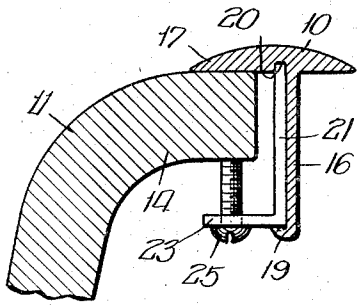


Fig. 9

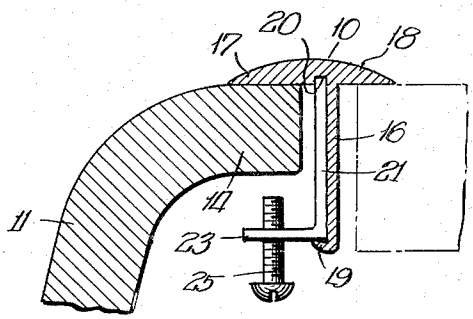


Fig. 11

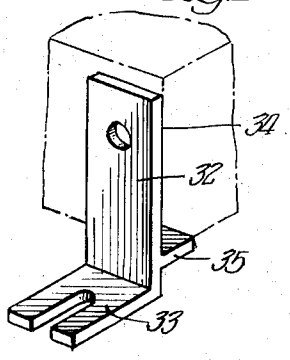
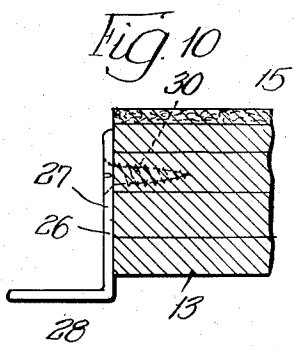


Fig. 10



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SINK MOUNTING

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Application February 1, 1949, Serial No. 73,913

14 Claims. (Cl. 4—187)

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This invention relates to improvements in sink mountings for installing a standard flat flange type sink in an opening in a drainboard or the like.

It is an object of the invention to provide improved mounting means particularly adapted for rigidly securing a sink of the flat flange or flat rim type in an opening in a linoleum covered drainboard or the like and providing a watertight seal between the sink and the drainboard.

It is a more specific object of the invention to provide a sink mounting for the purpose described which comprises a generally T-shaped sealing member having a top portion which covers the space between the edge of the sink and the drainboard and having a downwardly extending web portion which is positioned between the edge of the sink and the drainboard, a plurality of angular clamping elements adapted to be detachably interengaged with the sealing member in spaced relation around the edge of the sink which clamping elements have adjustable clamping screws in their inwardly projecting legs and a plurality of angular securing lugs having one leg adapted to be rigidly attached to the drainboard and having the other leg slotted for receiving in clamping relation the clamping screws in a predetermined number of the clamping elements, the clamping screws in the remaining clamping elements being adapted to engage the sink rim in clamping relation.

It is a further object of the invention to provide a sink mounting comprising a generally T-shaped sealing member of the type described wherein an inwardly directed narrow ledge formation is provided on the bottom thereof and wherein a slot is provided in the bottom surface of the top thereof and cooperating L-shaped clamping elements adapted to be positioned with one leg in interengaging relation with the bottom ledge formation and the slotted top of the sealing member.

These and other objects of the invention will be apparent from a description of the preferred form thereof which is shown by way of illustration in the accompanying drawing, wherein:

Fig. 1 is a top plan view of a sink installed in a drainboard with a mounting means embodying the principles of the invention;

Fig. 2 is a bottom view of a corner of the sink installation to an enlarged scale;

Fig. 3 is an enlarged isometric sectional view taken generally on the line 3—3 of Fig. 2;

Fig. 4 is an enlarged isometric sectional view taken generally on the line 4—4 of Fig. 2;

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Fig. 5 is a perspective view of a portion of the sealing ring member;

Fig. 6 is a perspective view of one of the clamping elements;

Fig. 7 is a perspective view of one of the drainboard attaching elements;

Fig. 8 is a section illustrating the sealing member attached to the sink rim;

Fig. 9 is a section similar to Fig. 8 showing one of the clamping elements in position for engagement with an attaching element on the drainboard;

Fig. 10 is a section illustrating one of the attaching elements rigidly secured to the drainboard; and

Fig. 11 is a perspective view of a modified form of the drainboard attaching element.

In the form of the invention which is illustrated in Figs. 1 to 10 of the drawings there is provided a mounting and sealing ring member 10 for securing a sink 11 in position in an aperture 12 in a drainboard 13. The sink 11 is a standard type having an outwardly directed top rim or flange 14 and the drainboard 13 is a conventional plyboard structure having a linoleum top 15. The drainboard 13 may be of any depth since the fixture is adapted to be used in drainboards of varying thicknesses. The aperture 12 is larger than the periphery of the sink 11 to provide space for the sealing member 10.

The sealing member 10 is preferably constructed of an extruded section of metal such as aluminum or similar material having sufficient resiliency to permit bending in order to install the same on the flange 14 of the sink 11. The member 10 is formed into a split ring to surround the four sides of the sink and is T-shaped in cross section providing a vertically positioned web portion 16 terminating at the top in an inwardly extending flange 17 which is positioned over the edge of the sink rim 14 and an outwardly extending flange 18 which is positioned over the linoleum top 15 of the drainboard 13. The edges of the flanges 17 and 18 may be rounded or feathered as desired to insure a relatively smooth surface between the sink 11 and the drainboard 13. The vertical web portion 16 of the member 10 terminates at the bottom in an inwardly directed flange or abutment ledge or shoulder 19 the upper surface of which slants inwardly and upwardly to provide a somewhat hook-shaped formation. At the top of the web portion 16 a groove or channel forming slot 20 is provided in the bottom surface of the flange 17 immediately adjacent the web to provide a downwardly ex-

tending abutment surface in opposed relation to the upper portion of the web 16. The recess or groove formation 20 extends throughout the length of the member 10 and may also be formed by any downwardly projecting ridge or shoulder formation on the bottom of flange 17.

A plurality of angular clamping elements or lugs 21 are provided for cooperation with the member 10. Each clamping element 21 is L-shaped to provide a vertical leg 22 (Fig. 6) and and a somewhat shorter horizontal leg 23. The leg 23 is provided with a threaded aperture at 24 which is adapted to receive in threaded engagement a bolt 25. The bolt 25 is inserted from the bottom and projects upwardly. The clamping elements 21 are interengaged with the member 10 by positioning the leg 22 against the inner face of the web portion 16 with the upper end of the leg 22 extending above the abutment formation provided by the groove 20 in the bottom surface of the flange 17 and with the lower surface of the leg 23 engaging in abutting relation on the top edge of the abutment shoulder 19. The lower surface of the leg 23 may be grooved or provided with a shoulder to more positively engage with the hook-line formation 18 on the bottom edge of the web 16, the elements being, of course, free to slide along the vertical web 16 of the frame 10. The leg 23 is directed inwardly of the member 10 and the bolt 25 may be adjusted upwardly to engage the lower surface of the rim 14 of the sink 11 as shown in Fig. 8.

A plurality of angular drainboard fastening or attaching elements 26 are provided each of which is also L-shaped to provide a vertical leg (Fig. 7) and a somewhat shorter horizontal leg 28. The vertical leg 27 is provided with an aperture 29 which is adapted to receive a wood screw 30 for rigidly fastening the element 26 to the drainboard 13 as illustrated in Fig. 10. The horizontal leg 28 is provided with an outwardly opening slot 31.

To install a sink using the fixture described the sealing ring 10 is positioned around the periphery of the sink flange 14. A plurality of the clamping elements 21 are then engaged with the member 10 in spaced relation around the edge of the sink 11 and the bolts 25 are advanced to engage the sink rim 14 and secure the member 10 in rigid relation on the sink, the upper ends of legs 22 being prevented from moving inwardly any substantial distance away from the web 16 by the abutment formation provided by the groove 20. A plurality of drainboard attaching elements 26 are then secured at desired points, preferably at the corners around the opening 12 in the drainboard 13. The sink 11 with the sealing ring 10 secured thereon is then positioned in the opening with additional clamping elements 21 associated with the sealing ring 10 at points corresponding to the location of the attaching elements 26, the bolts 25 on these elements 21 being positioned in the respective slots 31 in the attaching elements 26. The bolts 25 may then be advanced to clamp the sealing ring 10 to the drainboard 13 as illustrated in Fig. 4. In this manner the sealing member 10 is rigidly clamped to the sink flange 14 and the drainboard 13.

In Fig. 11 there is illustrated a modified form of drainboard attaching element 32 which comprises a slotted inwardly extending lower leg 33 and an apertured vertical leg 34 of the same construction as incorporated in the element 26 and in addition an outwardly extending flange or shoulder member 35 which may be spaced somewhat above the leg 33 and which is adapted to be positioned in engagement with the lower surface of the drainboard 13. The flange member 35 facilitates positioning the element 32 on the drainboard and also relieves the fastening screw of some of the vertical stress caused by the bolt 25 which engages the slotted leg 33 of the element.

It will be appreciated that while the mounting structure is herein specifically disclosed for use in securing a sink in a drainboard it is capable of being used in mounting or securing any device of a similar character in an apertured drainboard or other top member where installation conditions are similar and that while specific reference is made in the claims to a sink and a drainboard other devices of an equivalent nature are intended to be included in the scope thereof.

While specific details of construction and materials have been referred to in describing the form of the invention illustrated herewith, it will be understood that other details of construction and other materials may be resorted to within the spirit of the invention.

I claim:

1. In a fixture for mounting a flat flange type sink in an opening in a drainboard, a frame of generally T-shaped cross section which is adapted to be positioned with its vertical leg between the edge of the drainboard and the edge of the sink and with its top overlying the adjacent edges of the drainboard and the sink, said frame having a longitudinally extending abutment ledge adjacent the lower edge of the vertical leg and a relatively narrow longitudinally extending slot adjacent the upper edge of said leg, and clamping lugs each having a plate-like vertical portion adapted to be positioned against the vertical leg of said frame with one end interengaged in said slot and with the other end in abutting relation with said ledge, said lugs having inwardly directed portions provided with adjustable clamping members for clamping engagement with the sink rim.

2. In a fixture for mounting a flat flange type sink in an opening in a drainboard, a frame of generally T-shaped cross section which is adapted to be positioned with its vertical leg between the edge of the drainboard and the edge of the sink and with its top overlying the adjacent edges of the drainboard and the sink, said frame having a relatively narrow inwardly directed ledge extending along the lower edge of the vertical leg and a relatively narrow recess extending along the upper edge of said leg, and a plurality of spaced clamping lugs each having an end portion adapted to be interengaged in said recess and an intermediate portion adapted to be positioned in abutting relation with said ledge, said lugs having inwardly extending end portions provided with adjustable clamping members for clamping engagement with the sink rim.

3. In a fixture for mounting a flat flange type sink in an opening in a drainboard, a frame of generally T-shaped cross section which is adapted to be positioned with its vertical leg between the edge of the drainboard and the edge of the sink and with its top overlying the adjacent edges of the drainboard and the sink, said frame having an inwardly directed abutment ledge extending throughout its length adjacent the lower edge of the vertical leg and a shallow relatively narrow slot extending throughout its length adjacent the upper edge of said leg, and a plurality of clamping lugs each having a vertical leg portion

adapted to be positioned in interengaged relation in said slot and in abutting relation with said ledge, said lugs having inwardly directed bottom portions provided with adjustable clamping members for clamping engagement with the sink rim.

4. A sink and drainboard assembly comprising an apertured drainboard, a flat flange type sink positioned in the aperture in said drainboard, a substantially T-shaped sealing ring having a downwardly directed portion positioned between the sink and the drainboard, a plurality of L-shaped clamping elements each having one leg in interlocking engagement with said sealing ring and having the other leg provided with adjustable clamping members, said clamping elements being spaced around the periphery of said sink, and a plurality of L-shaped attaching elements each having one leg rigidly secured to the drainboard and having the other leg extending inwardly and provided with an open slot, said attaching elements being positioned to receive in said slots the clamping members on predetermined clamping elements, the remaining clamping members being adapted to engage in clamping relation with the sink flange.

5. A sink and drainboard assembly comprising an apertured drainboard, a flat flange type sink positioned in the aperture in said drainboard, a substantially T-shaped sealing ring having a downwardly directed portion positioned between the sink and the drainboard, a plurality of L-shaped clamping elements each having one leg in interlocking engagement with said sealing ring and having the other leg provided with adjustable clamping screws, said clamping elements being spaced along said frame, and a plurality of L-shaped securing elements each having one leg rigidly secured to the drainboard and having the other leg extending inwardly of the same provided with a slot, certain of said clamping elements being positioned to engage the clamping screws in the slots in said attaching elements and the remainder of said clamping elements being positioned to engage the clamping screws in clamping relation with the sink flange.

6. In a sink and drainboard assembly wherein a flat flange type sink is mounted in an aperture in a drainboard, a sealing ring having laterally extending flange portions engageable over the sink rim and adjoining top surface of the drainboard, said sealing ring having an integral web portion extending downwardly between the edge of the sink and the edge or the drainboard, an inwardly directed bottom flange on said web portion, an abutment shoulder adjacent the top of said web portion, spaced L-shaped clamping lugs having portions of one leg thereof in abutting relation with said bottom flange and another portion thereof in abutting relation with said top abutment shoulder and adjustable clamping screws in the other leg of said clamping elements.

7. In a sink and drainboard assembly wherein a flat flange type sink is mounted in an aperture in a drainboard, a sealing ring having laterally extending flange portions engageable over the sink rim and adjoining top surface of the drainboard, said sealing ring having an integral web portion extending downwardly between the edge of the sink and the edge of the drainboard, an inwardly directed bottom flange on said web portion, an abutment formation in the bottom surface of the inner flange portion adjacent the top of said web portion, an L-shaped clamping lug having one leg thereof in engagement with said bottom flange and with said abutment formation and an adjustable clamping screw in the other leg of said clamping element.

8. In a sink and drainboard assembly wherein a flat flange type sink is mounted in an aperture in a drainboard, a sealing ring having laterally extending flange portions engageable over the sink rim and adjoining top surface of the drainboard, said sealing ring having an integral web portion extending downwardly between the edge of the sink and the edge of the drainboard, an inwardly directed flange on the bottom of said web portion, an abutment shoulder in the flange portion adjacent the top of said web portion, spaced angular clamping elements each having a vertical leg in engagement with said flange and said shoulder and having an inwardly extending horizontal leg provided with a clamping screw therein and spaced angular attaching lugs each arranged with a vertical leg rigidly secured to the drain board and with a horizontal leg extending inwardly in generally parallel and aligned relation with the horizontal leg of certain of said clamping elements, said inwardly extending legs each being provided with an aperture whereby the clamping screws in said aligned clamping elements may be engaged in clamping relation therein.

9. In a sink and drainboard assembly wherein a flat flange type sink is mounted in an aperture in a drainboard, a sealing ring having laterally extending flange portions engageable over the sink rim and adjoining top surface of the drainboard, said sealing ring having an integral web portion extending downwardly between the edge of the sink and the edge of the drainboard, a plurality of angular clamping elements having one leg thereof in interengaged abutting relation with said web portion and having the other leg extending inwardly beneath the sink flange, a plurality of angular attaching elements having one leg thereof rigidly attached to the drainboard and having the other leg extending inwardly beneath said web portion and said sink flange, and clamping means adjustably mounted in the inwardly extending legs of said clamping elements, said clamping means being adapted to selectively engage with the sink flange or with the inwardly extending legs of said attaching elements.

10. In a sink and drainboard assembly wherein a flat flange type sink is mounted in an aperture in a drainboard, a sealing ring having laterally extending flange portions engageable over the sink rim and adjoining top surface of the drainboard, said sealing ring having a continuous web portion extending throughout its length and projecting downwardly between the edge of the sink and the edge of the drainboard, an inwardly directed bottom flange on said web portion, an abutment formation in the bottom surface of the inner flange portion adjacent the top of said web portion, said abutment formation extending throughout the length of said ring, L-shaped clamping lugs each having a leg in engagement with said bottom flange and with said abutment formation, said clamping lugs being slidable along said ring and said lugs each having an adjustable clamping member in the other leg thereof.

11. In a sink and drainboard assembly wherein a flat flange type sink is mounted in an aperture in a drainboard, a sealing ring having laterally extending flange portions engageable

over the sink rim and adjoining top surface of the drainboard, said sealing ring having an integral web portion extending downwardly between the edge of the sink and the edge of the drainboard, an inwardly directed flange on the bottom of said web portion, an abutment shoulder on the flange portion adjacent the top of said web portion, spaced angular clamping element each having a vertical leg in engagement with said flange and said shoulder and having an inwardly extending horizontal leg provided with a clamping screw therein and spaced angular attaching lugs each arranged with a vertical leg rigidly secured to the drainboard and with an inwardly extending horizontal leg in generally parallel and aligned relation with the inwardly extending horizontal leg of certain of said clamping elements, said inwardly extending legs each being provided with an aperture whereby the clamping screws in said aligned clamping elements may be engaged in clamping relation therein, and said attaching lugs each having an outwardly extending horizontal flange adapted to engage beneath the drainboard.

12. In a sink and drainboard assembly wherein a flat flange type sink is mounted in an aperture in a drainboard, a sealing ring having laterally extending flange portions engageable over the sink rim and adjoining top surface of the drainboard, said sealing ring having an integral web portion extending downwardly between the edge of the sink and the edge of the drainboard, a plurality of angular clamping elements each having one leg vertically positioned in interengaged relation with said sealing ring and having the other leg extending inwardly beneath the sink flange, a plurality of attaching elements each having a vertical portion thereof rigidly attached to the drainboard and having bottom flanges extending in opposite directions beneath the sink flanges and the drainboard and adjustable clamping means in the inwardly extending legs of said clamping elements, said adjustable clamping means being selectively engaged with the sink flange and the inwardly extending bottom flange of certain of said attaching elements.

13. In a fixture for mounting a flat flange type sink in an opening in a drainboard, a frame of generally T-shaped cross section which is adapted to be positioned with its vertical leg between the edge of the drainboard and the edge of the sink and with its top overlying the adjacent edges of the drainboard and the sink, clamping lugs each having a vertical portion adapted to be positioned against the vertical leg of said frame, interengaging portions on said frame and said clamping lug portions slidably connecting said lugs with said frame for movement lengthwise of said frame, said lugs having inwardly directed portions adjacent the free edge of the vertical leg of said frame and vertically adjustable clamping members associated with said inwardly directed portions of said lugs for clamping engagement with said rim.

14. In a fixture for mounting a flat flange type sink in an opening in a drainboard, a frame of generally T-shaped cross section which is adapted to be positioned with its vertical leg between the edge of the drainboard and the edge of the sink and with its top overlying the adjacent edges of the drainboard and the sink, L-shaped clamping lugs each having a vertical leg adapted to be positioned against the vertical leg of said frame and a horizontal leg adapted to be positioned in spaced relation to said rim, interengaging portions on the vertical legs of said clamping lugs and said frame connecting said lugs and said frame in slidable relation longitudinally of said frame and clamping members adjustably mounted on said horizontal legs for clamping engagement with the sink rim.

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