May 2, 1950 F. J. FOX 2,505,828

SINK RIM

Filed Sept. 3, 1947

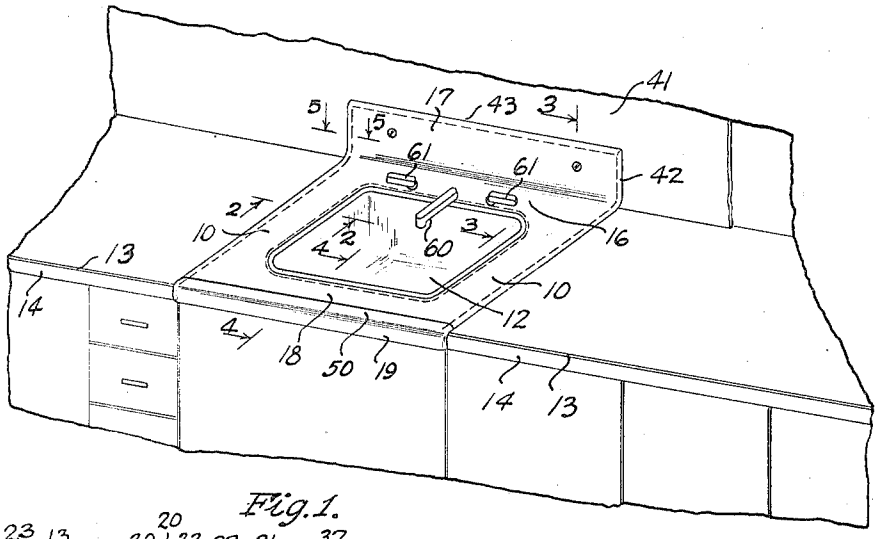


Fig. 1.

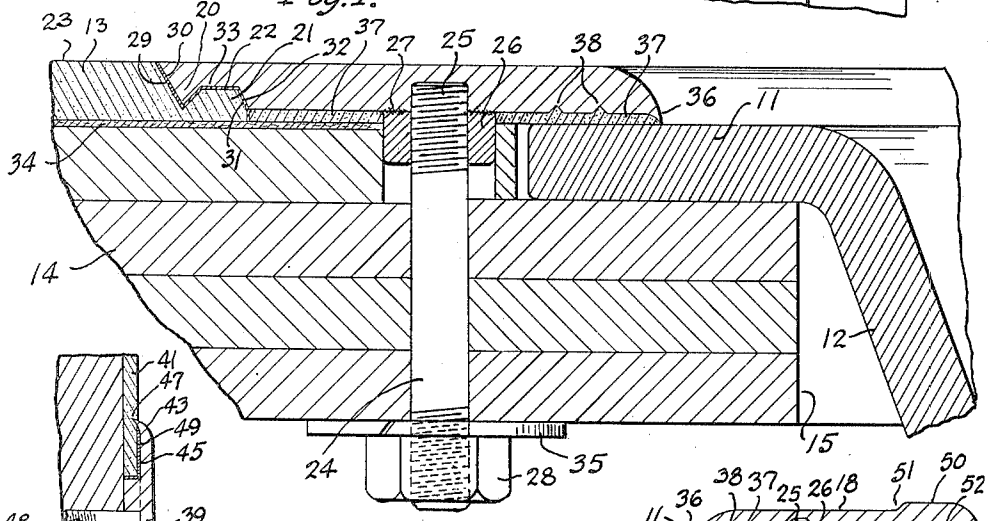


Fig. 2.

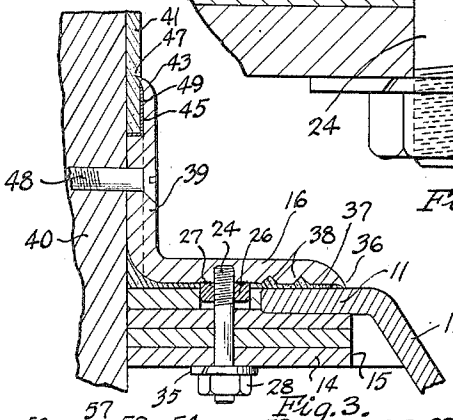


Fig. 3.

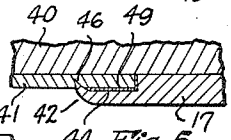


Fig. 5.

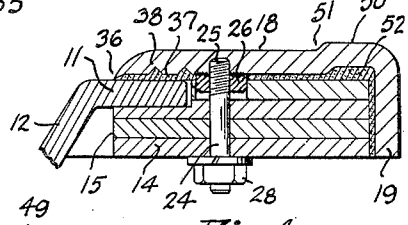


Fig. 4.

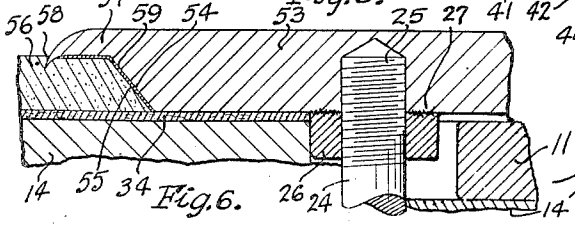


Fig. 6.

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SINK RIM

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7 Claims. (Cl. 4—187)

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This invention relates to a sink rim, particularly one that is to be used between the flanges of a sink mounted in a shelf or similar support covered with linoleum or like material, and forms an improved means for joining the sink with the linoleum.

It has for an object to provide an improved means for joining the sink with the linoleum and making a waterproof connection between them.

It is also an object to provide an improved construction of rim for this purpose, which not only forms a water-tight joint at the sides of the sink but may also be extended up over the back-splash and form a waterproof joint therewith, and will also have an improved front edge construction at the forward edge of the sink and shelf.

It is a further object to provide an improved construction of this type of device which will permit the use of ledge type faucets for supplying water to the sink, and these faucets may be mounted on this metal rim structure to produce a much improved appearance and prevent possibility of moisture seeping through the openings around the faucets or the pipes leading to them.

A further object is to provide an improved construction of this type of device which will provide means for clamping down the linoleum or similar covering adjacent to the sink in such a manner that it will not pull away or creep back from the rim or the sink, and also one that will maintain indefinitely a watertight joint between this covering and the rim of the sink.

Another object is to provide an improved means for mounting the rim structure, and one that may be mounted in such a way as to permit removal of the sink if desired, with a minimum of difficulty, and without having to remove or disturb the linoleum or other surface finishing material adjacent the sink.

With the foregoing and other objects in view, I have devised the construction illustrated in the accompanying drawing forming a part of this specification. It is, however, to be understood the invention is not limited to the specific details of construction and arrangement shown, but may embody various changes and modifications within the scope of the ivention.

In this drawing:

Fig. 1 is a perspective view of the device installed with a sink in a shelf or other similar arrangement;

Fig. 2 is an enlarged section of a side edge structure taken substantially on line 2—2 of Fig. 1;

Fig. 3 is a detail section through the back-splash facing structure, taken substantially on line 3—3 of Fig. 1;

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Fig. 4 is a detail section of the front edge structure taken substantially on line 4—4 of Fig. 1;

Fig. 5 is a detail section through the upright edges of the splash portion taken substantially on line 5—5 of Fig. 1; and

Fig. 6 is a section similar to a portion of Fig. 2 showing a slight modification.

The device comprises a metal rim structure preferably of relatively soft metal, including side portions 10 joining the rim flange 11 of a porcelain or enamel covered sink 12 with the adjacent linoleum or other finishing covering 13, the whole assembly being supported by a plywood or similarly constructed shelf or other suitable structure 14 provided with an opening 15 in which the sink is mounted, the flange or rim 11 of the sink resting on this shelf or supporting structure around the periphery of the opening 15, as shown in the drawing. The rim structure also includes a rear horizontal portion 16 at the back of the sink, and this is extended upwardly at its rear edge to form an upright splash portion 17. At the forward edge of the sink it includes a forward horizontal portion 18 terminating in a downwardly extending flange 19 at the front of the shelf and sink. The whole rim comprising these different portions is preferably formed in one integral piece or structure as this eliminates joints and facilitates mounting, as well as giving a better and more attractive appearance, but it will be understood it may be made in different sections if desired.

Each of the side portions 10 of the rim, as shown more clearly in Fig. 2, is so constructed that it is provided with a downwardly directed knife edge rib or protrusion 20 at or near the outer edge of this portion 10, which joins the linoleum or other covering 13. The adjacent edge of the covering 13, which may be of "linoleum," "Formica," "martite," "wall board" or the like, is bevelled and rabbeted in such a way that it has a thinner edge portion 21 with its top surface 22 below the top surface 23 of the main body of the covering 13 to receive the knife edge or rib 20. Thus, as will be seen from Fig. 2, when the portion 10 is forced or pulled downwardly against the linoleum or other covering, this edge or rib 20 will bite or be forced into the material forming the covering 13 at the point of the joining of the thicker portion of the covering and the thinner portion 21. The clamping means is preferably a bolt, any number of which found desirable may be used, indicated at 24, secured at its

upper end to the under side of the portion **10**. In the structure shown, this upper end is threaded at **25** into the metal of the rim structure **10** and may be soldered to prevent its loosening. Also, a nut or heavy washer **26** may be welded to the under side of the portion **10**, as indicated at **27**, and tapped to receive the bolt, thus insuring a stronger and more reliable connection between the bolt and the rim. Or, if preferred, this reinforcement for securing the bolt could be cast as a lug or boss on the under side of the rim. It will be understood that by tightening the nut **28** on the lower end of this bolt the rim may be clamped firmly against the linoleum or other covering and the sharp rib or portion **20** will be forced into or bite into this material, providing a very tight connection between the covering and the metal rim and one that will prevent the covering from receding or drawing away from the metal rim. It is also preferred to bevel or incline the opposed faces **29** and **30** so that the base **29** is overlapped by the rim and the surface **30** will be tightly clamped over the surface **29**. The inner edge **31** is also similarly inclined, as well as the opposed surface **32** of the metal rim to provide a similar clamping effect when the rim is pulled down by the bolt. These inclined or bevelled surfaces can be pressed together or against the sealing material **33** to insure a water-tight bond or joint between the rim and the covering material.

It is also preferred that the covering **13** be laid on a layer of felt or similar material **34** placed between this covering and the supporting structure **14**.

In order to maintain a constant grip on the covering **13** by the rim, even after the unit has been assembled in place for some time, it is preferred to provide a large split spring or lock washer **35** on the bolt between the nut and the supporting structure **14**. As this washer is a large one it provides an increased contact surface with the supporting structure, and as it is a split spring or lock washer it keeps tension on the bolt and rim at all times, so that even after being in place for some period of time the rim is still securely forced against the covering **13** to maintain the tight joint between them. In addition, the lock washer prevents the nut from loosening.

To insure that the other or inner edge of the metal rim will fit snugly against the flange **11** of the sink, this edge is shaped into a downwardly directed knife edge or sharp flange **36**, and when the rim or frame **10** is made of relatively soft metal, if the surface of the flange **11** of the sink is irregular this rim **36** may be tapped lightly with a hammer to make it conform to the surface of the flange **11** and insure a tight connection between them.

In order to insure that a water-tight or waterproof seal is made, when the unit is assembled a sealing compound or cement **37**, such, for example, as damp proof paste mastic, is applied between the metal rim and the other surfaces against or opposed to it. Also to increase the cohesive action between the rim and the sealing compound, linear or longitudinal grooves **38** may be cut in the under surface of the rim, thereby making the under surface of the rim irregular and also increasing this surface area by which the mastic paste is held in place. It also permits the use of a greater amount of sealing material to prevent water seepage.

In this new construction of rim or frame, the horizontal surface **16** at the back of the sink is

a continuation of the side surfaces **10**, and this rests on the rear portion of the flange **11**, as shown in Fig. 3, the same as the side portions **10**, it being provided with the same inner knife edge or sharp flange **36** to engage the surface of the sink flange, and also having the grooves **38** for the sealing material **37**, and it is clamped in the same way by the bolts **24**. The rear edge of this portion **16**, however, is extended upwardly as shown at **39**, over the face of the back wall **40**, and the back splash **41** of linoleum or other suitable material is inserted in back of this extension, as shown in Figs. 3 and 5. For this purpose the upright edges **42** and the top edge **43** are rabbeted or recessed, as indicated at **44** and **45**, to receive the edges of this covering, and the edges **42** and **43** are rounded and directed rearwardly, terminating in knife edges **46** and **47**, which are pressed into and bite into the surface of the linoleum or other covering when the device is clamped against the back wall by the securing means, such as the screws **48**. These sharp edges securely grip the covering and hold it in place and prevent it from drawing away from the metal rim structure. It also insures a water-tight joint between the metal rim and the covering, and this may be further insured by placing a layer of sealing material **49** between the overlapped portions of the covering and the metal rim structure.

At the forward edge of the sink the flat surface of the side portions is continued in the flat surface **18**, and at its inner edge this surface terminates in a downwardly directed knife edge or sharp flange **36**, this being a continuation of the knife edge or flange **36** of the side portions, and it is clamped against the forward portion of flange **11** of the sink by the securing bolts **24**, as shown in Fig. 4, the same as are the side portions **10**, and the joint is also filled with the sealing material **37** and the under side is provided with the same grooves **38**. At its outer edge, however, this front portion is raised somewhat above the surface **18**, as shown at **50**, forming a rim across the front of the frame or rim structure, and this provides a stop wall **51** to prevent liquids on the rim running over the front edge. The outer portion of the rim is extended downwardly, as shown at **19**, over the outer edge of the shelf or supporting structure **14**, to protect it and provide a neater and more attractive appearance, and the space between this rim structure and the shelf or supporting structure, both at the top and at the outer edge of the shelf, may be filled with the sealing or mastic material **37**, as indicated at **52**.

As will be seen from Fig. 2, the joint between the rim **10** and the covering **13** is such that the top surfaces of these two elements are substantially flush or on the same level, but a slightly different joint between the rim and this adjoining material is shown in Fig. 6, the other or inner edge clamping portion on the rim **11** of the sink being the same as that shown in Fig. 2. As shown in this Fig. 6 the metal rim **53** corresponding to the rim **10** is partially bevelled at its edge **54** to meet the similarly inclined or bevelled edge **55** of the linoleum or other covering **56**, similar to the inclined or bevelled edges **31**, **32** of the structure of Fig. 2. A flange or lip **57** is formed on the outer edge and is turned down into a knife edge **58**, but protrudes from the bevelled surface **54**, as indicated at **57**, and overlaps the covering **56**. This is similar to the knife edge **20** of Fig. 2 and grips and holds the covering **56** in the same manner. Thus in this

form, when the rim 53 is forced downwardly by the securing means, such as the bolt 24, this sharp edge 58 will bite into the top surface of the covering 56, forming a tight joint. This may also be sealed by sealing compound or cement 59, the same as shown at 22 in the first form.

With this construction also, the ledge type of faucets for supplying water to the sink may be employed, as shown in Fig. 1. In this view, the single combined adjustable outlet spout for both faucets is shown at 60, with the usual control handles 61 for the control valves, the discharge outlet and the handles being located above the rear wall 16. This gives a very much improved appearance and permits sealing of the openings for these elements in the rim structure to prevent seepage of water through to the wooden supporting structure, or the linoleum or other covering.

It will be seen from the above that the whole rim structure surrounding the sink can be made in one unitary structure, including the upright back or splash wall 17, and that it provides a sealed watertight joint with the linoleum or other covering entirely around the sides and back of this rim structure, preventing the entrance of moisture under the rim structure at any point, and thus maintaining dry, sanitary conditions in the assembly at all times. Also, the linoleum or other covering for the shelves or other supporting structure, including the back or splash wall, are tightly gripped and held by this rim structure, so that there is no chance of its drawing away from it to open up the joint between them to permit entrance of water or other liquids.

If used with stainless steel or all metal sinks, this rim could be welded or soldered to the sink flange 11 at edge 36 if desired. This would insure a watertight joint and eliminate use of paste in the joint between the rim and the sink. This would also make the rim and the sink in one piece so that they could be installed in one piece in one operation.

Having thus set forth the nature of my invention,

I claim:

1. A mounting for a sink of the character described comprising a shelf provided with an opening and a rear wall rising from the rear edge of the shelf, a sink mounted in the opening provided with a flange resting on the shelf about said opening, a covering of linoleum or similar material on the shelf and rear wall, a metal clamping rim overlapping the adjacent edges of the covering and the flanges of the sink and provided with a downwardly directed relatively sharp edge embedded in the upper side of the shelf covering, said rim also including an upward extension at its rear edge over the rear wall and overlapping the covering on said wall, the upright extension being provided with a rearwardly directed relatively sharp edge embedded in the covering of the rear wall, and means for clamping the metal rim on the coverings and the sink flange.

2. A mounting for a sink of the character described comprising a shelf provided with an opening and a rear wall rising from the rear edge of the shelf, a sink mounted in the opening provided with a flange resting on the shelf about said opening, a covering of linoleum or similar material on the shelf and rear wall, a metal clamping rim overlapping the adjacent edges of the covering and the flanges of the sink,

the edge of the covering and the under side of the rim being provided with opposed upwardly and outwardly inclined surfaces, the rim being provided with a downwardly directed relatively sharp edge located outwardly of said inclined surfaces and embedded in the upper side of the shelf covering, said rim also including an upright extension at its rear edge over the face of the rear wall and overlapping the covering on said wall, the upright extension being provided with a rearwardly directed relatively sharp edge embedded in the covering of the rear wall, means for drawing the rim downwardly to embed the first mentioned sharp edges in the covering on the shelf, and means to draw the rear upright extension backwardly to embed the relatively sharp edges on this extension in the covering for the rear wall.

3. A mounting for a sink of the character described comprising a shelf provided with an opening and a rear wall rising from the rear edge of the shelf, a sink mounted in the opening provided with a flange resting on the shelf about said opening, a covering of linoleum or similar material on the shelf terminating adjacent the edge of the flange, a covering of similar material on the face of the rear wall, a metal clamping ring overlapping the adjacent edges of the shelf covering and the flange and clamped against them, said rim being provided with downwardly directed outer and inner relatively sharp edges engaging the upper surface of the shelf covering and the sink flange respectively, said rim also including an upwardly extending wall at its rear edge located over the rear wall and overlapping the covering on said wall, the upwardly extending wall being provided with a rearwardly directed relatively sharp edge along its upright side and top edges engaging the covering of the rear wall, and means for clamping the said edges against the coverings and the sink flange respectively.

4. A mounting for a sink of the character described comprising a shelf provided with an opening and a rear wall rising from the rear edge of the shelf, a sink mounted in the opening provided with a flange resting on the shelf about said opening, a covering of linoleum or similar material on the surface of the shelf terminating adjacent the edge of the flange, a covering of similar material on the face of the rear wall, the edge portion of the shelf covering being rabbeted on the upper side with upwardly and outwardly inclined surfaces at the opposite edges of said rabbet, a clamping rim overlapping said rabbeted portion and the sink flange and provided with similarly inclined surfaces opposed to those of the covering, said rim being provided with a downwardly directed relatively sharp edge engaging the intermediate portion of said rabbet, said rim also including an upwardly extending wall at its rear edge located over the rear wall and overlapping the covering on said rear wall, said upwardly extending wall being provided with a rearwardly directed relatively sharp edge along its upright side and top edges engaging the rear wall covering, and clamping bolts or the like for drawing the rim against said coverings and the sink flange.

5. A mounting for a sink of the character described comprising a shelf provided with an opening and a rear wall rising from the rear edge of the shelf, a sink mounted in the opening provided with a flange resting on the shelf

about said opening, a covering of linoleum or similar material on the upper surface of the shelf terminating adjacent the edge of the flange, a covering of similar material on the front face of the rear wall, a metal clamping rim overlapping the adjacent edges of the shelf covering and the sink flange, the edge of this covering and the under side of the rim being provided with opposed upwardly and outwardly inclined surfaces, said rim being provided with a downwardly directed relatively sharp edge at its outer and inner edges engaging the shelf covering and the sink flange respectively, said rim also including an upwardly extending wall at its rear edge overlapping the rear wall covering, said upright extension being provided with a rearwardly directed relatively sharp edge along its upright side edges and top edge engaging the rear wall covering, and bolts or similar means clamping the rim against said coverings and the sink rim.

6. A mounting for a sink of the character described comprising a shelf provided with an opening and a free forward edge, a sink mounted in the opening provided with a flange resting on the shelf about said opening, a covering of linoleum or similar material on the shelf, a metal clamping rim overlapping the adjacent edges of the covering and the sink flange and provided with a downwardly directed relatively sharp edge engaging the upper side of the shelf covering, said rim also including at its front edge a downward extension extending over and covering the forward edge of the shelf, and means for clamping the rim against the covering and the sink flange.

7. A mounting for a sink of the character described comprising a shelf provided with an opening and a free forward edge, a sink mounted in the opening provided with a flange resting on the shelf about said opening, a covering of linoleum or similar material on the shelf, a metal clamping rim overlapping the adjacent edges of the covering and the sink flange and provided with a downwardly directed relatively sharp edge engaging the upper side of the shelf covering, said rim being provided along its front edge with a raised wall above the surface of the rim providing a stop for liquid and also including a downward extension outwardly of this raised wall extending downward over and covering the forward edge of the shelf, and means for clamping the rim against the covering and sink flange.

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