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2,472,685

KITCHEN CABINET STRUCTURE

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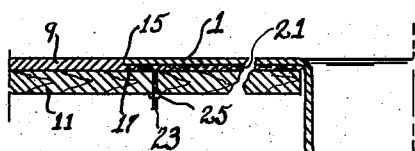
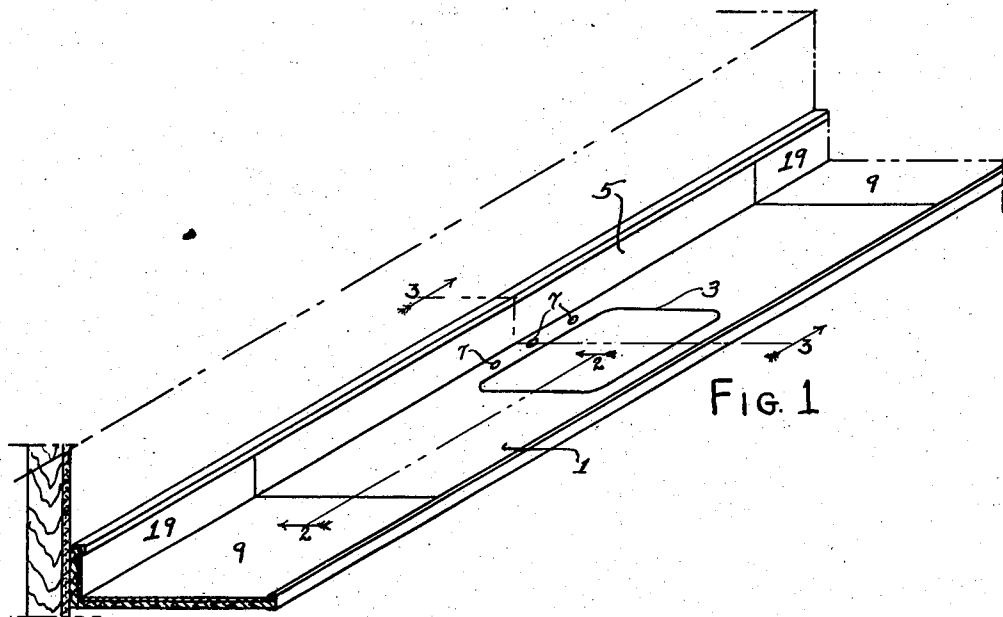


FIG. 2

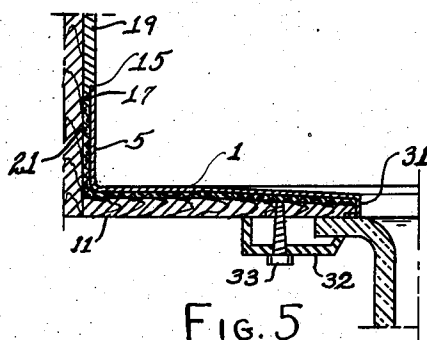


FIG. 5

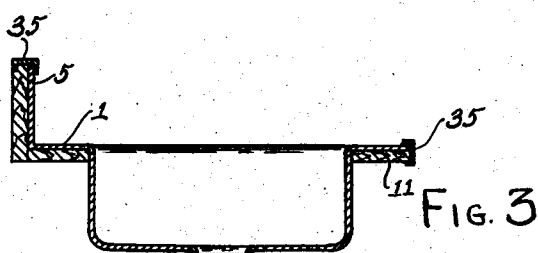


FIG. 3

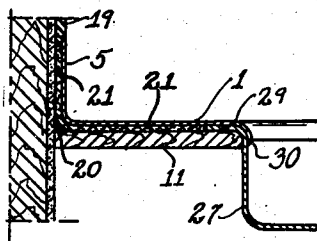


FIG. 4

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KITCHEN CABINET STRUCTURE

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6 Claims. (Cl. 4—189)

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The present invention relates to kitchen cabinet structure and more particularly to a novel combination comprising a sink, a drainboard and a linoleum covered table.

A popular kitchen cabinet and sink combination in recent years comprised a flat rim sink built into the table forming the top of the cabinet which was covered with linoleum. In such structures it has been customary to provide a metal strip along the exposed edges of the table as well as around the opening for the sink. Numerous different designs of strips have been used but all suffered from the common defect of permitting water to seep from the linoleum where it splashed or drained from washed dishes, etc., into the underlying wood of the table top. This moisture caused damage to the wood, causing it to warp, rot, and, where plywood was used, to come unglued. In most cases the linoleum as pasted to the table top with a water soluble paste which loosened as water seeped under the striping. The linoleum, moreover, became discolored in time in the vicinity of the sink.

The present invention has for its principal objects the provision of a combination linoleum and stainless metal table top which prevents the seepage of water from splashing and drainings under the linoleum and which overcomes the undesirable discoloring of linoleum near the sink. Other objects and advantages of the invention will become apparent from the following detailed description of the invention taken in conjunction with the drawing in which:

Fig. 1 is an isometric fragmentary view of a portion of a kitchen cabinet showing the novel table top comprising linoleum and stainless metal;

Fig. 2 is a fragmentary sectional view along the line 2—2 of Fig. 1 giving details of the manner of joining the metal and linoleum;

Fig. 3 is a transverse sectional view of a cabinet top through the sink, as along the line 3—3 of Fig. 1;

Fig. 4 is a fragmentary transverse sectional view of a different form of the invention having a joint between a flat rim sink and the drainboard unit; and

Fig. 5 is a fragmentary transverse sectional view of a further form of the invention.

The invention, in its broadest aspect, relates to a drainboard unit made of stainless sheet metal which is adapted to form part of a kitchen cabinet table top surrounding the sink. The balance of the table top is linoleum into which the drainboard is set so that its ends lie flush with the

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upper surface of the linoleum. The drainboard is preferably as wide as the table top and it is provided at the rear edge with a splash back which is set into the vertical linoleum strip, where such is used, in the same manner as the horizontal portion is set into the adjacent linoleum on the table top. The drainboard may be integral with the sink, i. e., the entire unit may be formed from a single sheet of stainless metal, or the sink and drainboard may be separate units suitably joined together. The invention is equally applicable to new construction and to repair of existing cabinets. In repair jobs, where the installed sink is still in satisfactory condition, only the drainboard unit need be used.

Referring now to the drawing, the drainboard unit shown in Fig. 1 and represented by reference number 1 is of the double drainboard type which is preferred but where the sink is located near an end of the cabinet the drainboard on that side of the sink will be suitably shortened. The drainboard unit consists of a plane of stainless sheet metal of suitable gauge and composition to withstand the normal usage without deformation or discoloration. Stainless steel and Monel metal are satisfactory compositions and 20 gauge sheets are strong enough for domestic installations. These are given by way of illustration and not limitation.

The unit 1 has an opening 3 corresponding in size and contour to the sink with which it is to be used. At the rear edge an upturned splash back 5 is provided. Between the sink opening 3 and the splash back 5 the metal is shown cut out at 7 to take care of a mixing type faucet which has three parts extending through the table top, viz., a hot water tap, a cold water tap and a common spout. It will be understood that other types of faucets may be used, passing through the horizontal portion, the splash back or coming through the wall above the splash back.

An essential feature of the drainboard unit of the invention is that it does not have any flanges at the ends. The front may or may not have a flange, as desired. Similarly, the top edge of the splash back may or may not have a flange and in most cases it is preferred not to provide a flange in this place. Fig. 2 shows how the plane end of the drainboard 1 combines with the linoleum 9 to provide a smooth table top.

The table of the cabinet comprises a base 11, preferably made of $\frac{3}{4}$ " plywood but 1" flooring or other suitable material can be used if desired. The base is supported by the cabinet structure, not shown, of which it is a part and which may

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be of any desired construction. The linoleum 9 is fastened to the base 11 by means of linoleum paste in the usual way. Together the linoleum 9 and the drainboard 1 provide the entire table top covering the base 11.

At the joint between the linoleum 9 and the drainboard 1, the linoleum, which is usually about $\frac{3}{8}$ " thick, is rabbeted as shown at 15 to a depth just equal to the thickness of the drainboard which is usually about 0.037" thick. The shoulder 17 underlies the end of the drainboard and supports it so that its upper surface is just flush with the linoleum. If desired, the contacting surfaces may be coated with a waterproof adhesive but this is not essential since the joint is sufficiently far removed from the sink that little if any water will reach the joint. It is customary to provide linoleum on the vertical wall at the back of the table as shown at 19, sometimes as part of the same piece of linoleum as the table top 9 and in other cases as a separate piece. In the former case a hidden cove strip 20 is secured under the linoleum in the angle between the base and the back as shown in Fig. 4 and the linoleum is bent around the curve and secured by paste to the surface it covers. Where the drainboard unit is used in such a cabinet the splash back is bent around a curve of the same radius as the linoleum, giving a flush joint at the bend as well as along the straight surfaces. Where separate pieces of linoleum are used for the table top and back, an exposed metallic cove having a groove to receive the edge of one of the pieces of linoleum is usually used which generally has a smaller radius than the other mode of construction just described. In these cases the splash back is also preferably bent around a small radius. The two types of bends are illustrated in Fig. 4 for the larger bend and in Figs. 3 and 5 for the smaller bend. In either case the linoleum on the back is rabbeted in the same way as shown in Fig. 2 to receive the plane edge of the splash back. Where the vertical piece of linoleum is higher than the splash back, the horizontal joint between the top edge of the splash back and the linoleum is formed in the same way (see Figs. 3 and 5). Where they are of the same height, as in Fig. 1 and Fig. 3, the finishing strip customarily used with linoleum may extend on across the splash back as well. If the linoleum is of less height than the splash back, the finishing strip may be bent up around the edge of the latter.

The length of the shoulder 17 may vary over a considerable range, $\frac{1}{2}$ " to 1" being sufficient. The remaining areas of the drainboard may be unsupported but it is preferred to provide a resilient packing 21, e. g., one or more sheets of felt of suitable thickness, between it and the base. The packing 21 serves not only as a resilient support for the drainboard which minimizes any tendency to dent the sheet metal by blows from falling objects such as heavy pans and the like, but it also deadens the metallic ring. Similar packing may be used behind the splash back, as shown in Figs. 4 and 5. My drainboard unit can also be used as the entire cabinet top, in which case it may rest directly on the table top and against the back, as shown in Fig. 3. The back may be part of the wall, as in Fig. 4 or part of the cabinet as in Figs. 3 and 5.

The drainboard may be fastened to the base in any suitable way. One satisfactory means comprises bolts 23 bonded, e. g., by soldering or welding, at suitable intervals to the under sur-

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face of the drainboard as shown in Fig. 2. These bolts extend through the base and are fastened in place by nuts 25.

It is contemplated that the novel drainboard of the invention will be used both in new construction and in repair work. For this reason, the sink may either be an integral part of the unit, which is preferable for new construction, as shown in Fig. 3, or it may be made of a separate piece of material, as shown in Figs. 4 and 5. In Fig. 4 the sink 27 is stainless metal and is provided with a top flange 29 which may be, and preferably is, bonded to the under surface of the drainboard 1 so as to form a water tight joint, e. g., by welding and/or soldering. A very satisfactory joint comprises a few spot or tack welds for strength and a solder bond 30 entirely around the edge so as to make it waterproof. A pure lead solder is satisfactory because it remains bright and does not discolor, but any suitable solder may be used. My drainboard unit can also be used with a flat rim vitreous sink, i. e., a porcelain or enameled cast iron sink, such as illustrated in Fig. 5, in which case the joint between them is preferably filled with a waterproof adhesive, a drying putty, or the like to prevent seepage of water through the joint. The sink is in registry with the opening in the base and the drainboard in both Figs. 4 and 5.

The drainboard shown in Figs. 1 to 4 of the drawing has its entire horizontal surface in the same plane. This is satisfactory in most installations but in cases where a great deal of water may get onto the drainboard it may be preferable to depress the metal to provide a slight slope from the ends toward the sink, and, if desired, from the edges also as illustrated in Fig. 5. Where this is done in the two piece construction a satisfactory joint can be obtained by providing a narrow flange 31 around the edge of the sink opening which preferably takes the form shown in Fig. 5, the lower edge of this flange being in the same plane around the entire periphery so that a tight joint between the drainboard and sink can be obtained. This type of edge structure is preferred where the sink is vitreous, i. e., made of porcelain or enameled cast iron, even if the drain areas are not sloped since the flange 31 on the drainboard 1 can be clamped or bolted tightly to the rim of the sink, e. g., by U-shaped clamps 32 and lag screws 33 as illustrated in Fig. 5.

Fig. 3 shows one type of finishing strip 35 that can be used satisfactorily at the front edge of the table top and splash back. It comprises a U-shaped steel strip having considerable resilience, the arms of which grip the top and bottom surfaces tightly and hold the strip in place. Other types of finishing strips are well known and any which can be used for linoleum alone can be used equally well in cabinet tops embodying the present invention.

The drainboard unit of the invention, either with or without the integral sink, lends itself admirably to mass production in large quantities since it is so readily adaptable for use in all sorts of cabinet sizes and structures. It may be made wide enough for the widest cabinets and be cut to proper width on the job. Similarly one or both of the ends may be cut to length on the job in cases where the drain area at one or both sides of the sink is less than the area of the drainboard provided on the unit. In this way one or a very few standard types and sizes of drainboard units may be provided for practically

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all sizes and types of kitchen cabinets. This makes the cost of manufacture of each unit quite low without adding materially to the cost of installation.

Although the present invention has been described in connection with certain specific embodiments and illustrations, modifications and variations are contemplated within the scope of the appended claims.

I claim:

1. A kitchen cabinet table top comprising a base of plywood having an opening, a flat rim sink registered with said opening with the rim extending beyond the edges of the opening, a plurality of clamps fastened to said base with one end engaging said rim and the other end engaging the underside of the base, and a drainboard consisting of a sheet of stainless metal on the upper surface of said base, said drainboard having an opening registering with the opening in said base and having a wall extending downwardly into contact with said rim.

2. A kitchen cabinet table top as set forth in claim 1 in which there is a flange at the lower edge of said wall forming a channel in which the edges of the base surrounding the opening therein are positioned.

3. A kitchen cabinet table top as set forth in claim 1 in which the table top includes linoleum rabbeted under said drainboard.

4. A drainboard unit comprising a stainless metal sheet having its ends in the plane of said sheet, a splashback bent upwardly along the rear edge of said sheet, said sheet being provided with a sink opening, the edges of the sheet surrounding said opening extending downwardly and rearwardly to form a horizontal flange extending away from said opening with said flange being in the same plane throughout and offset

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from the plane of said sheet, said flange being part of said sheet and adapted to engage the rim of a flat rim sink secured in registry with said opening.

5. A drainboard unit as set forth in claim 4 which comprises a base having an opening corresponding in size and shape to the said sink opening with the edge of the base surrounding said opening lying in the channel formed by said flange.

6. A drainboard unit comprising a base of plywood having a sink opening and a drainboard consisting of a sheet of stainless metal on the upper surface of said base, said sheet having a sink opening registering with the opening in said base, the edge of the sheet surrounding said opening extending downwardly and rearwardly to form a horizontal flange around the edge of said base, said flange being in the same plane throughout whereby a flat rim sink may be secured in registry with said opening with the rim beneath said flange.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,965,375	Hanlon	July 3, 1934
2,038,638	Brey	Apr. 28, 1936
2,193,018	Batcheller	Mar. 12, 1940
2,198,696	Drain	Apr. 30, 1940
2,246,051	Leslie	June 17, 1941
2,256,272	Batcheller	Sept. 16, 1941
2,397,690	Pawlus et al.	Apr. 2, 1946
2,456,065	Just	Dec. 14, 1948