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(54) Sink unit.

(57) There is disclosed a sink unit of one piece formation (10) which comprises at least one bowl (11, 12) and an adjoining drainer (13). The unit (10) is adapted to be mounted on an apertured worktop (14) with the bowl(s) (11 and 12) located in an aperture or cut out (15) and the drainer (13) being

supported by an adjoining supporting surface (16) of the worktop (14). The underside of the drainer (13) is provided with one or more strengthening ribs (17) which engage the supporting surface (16) in order to support the drainer (13).

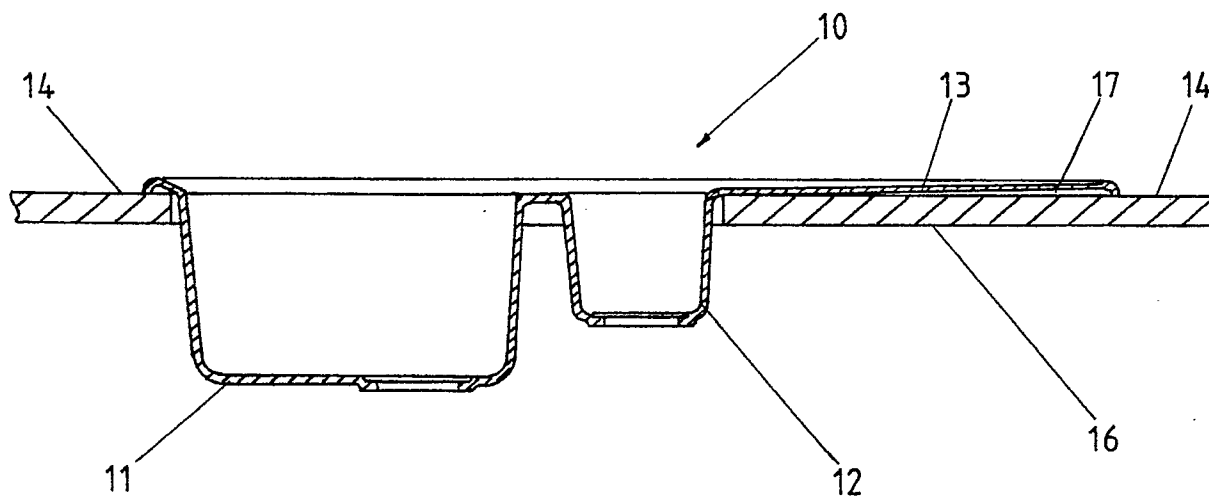


FIG. 1

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SINK UNIT

This invention relates to a sink unit which is intended to be mounted on a working surface or "work top", and which includes at least one bowl and an adjoining drainer.

In modern kitchen installations, the sink unit is usually mounted in position in an aperture or apertures formed or provided in a work top, and the sink has at least one bowl and an adjoining drainer. The bowl and the drainer are usually of one piece formation, and in the past were made of cast iron, but more recently have been made of stainless steel and plastics material, such as polycarbonates and suitable thermoplastic materials.

When sink units have been made from fairly stiff materials, such as marble, ceramic or asterite plastics material, the sink unit itself has sufficient rigidity to withstand any loadings applied to the unit in use. However, with the use of the more plyable modern materials, the drainer area especially of the sink suffers from flexing problems and has a generally unstable feel about it, especially when heavy utensils are placed on the drainer area.

However, in the interests of saving in material costs, it is necessary for the wall thickness of the sink unit (mouldings or pressings to suit manufacturing convenience) to be reduced as much as possible, but there is a limitation as to how thin the walls can be made by reason of the loss of rigidity which inevitably accompanies wall thickness reduction.

It is the present practice for the entire sink unit (usually a large bowl, an adjacent smaller bowl and an adjoining drainer) to be lowered into position into a single aperture formed in the work top, and the unit has a peripheral flange which bears upon the edge region of the aperture. Typically, the support for the unit is provided by a peripheral margin about 10 mm wide, and the remainder of the unit is therefore unsupported and is freely suspended from the peripheral margin. Bearing in mind the loading which will be applied to the unit when one or both bowls are filled with water and dishes, and with heavy utensils, such as pots placed on the drainer, this applies substantial internal stresses to the wall structure of the sink unit by virtue of the sole support provided via the narrow peripheral margin along the work top aperture edge.

This therefore imposes a restriction on the minimum acceptable thickness to which the wall of the unit can be reduced, especially since flexing of the unit under load may cause anxiety or dissatisfaction in the minds of the users of the unit.

The present invention has therefore been developed primarily with a view to providing a sink

unit of one piece formation which can be better supported on a kitchen work top than in existing kitchen installations, and which also has improved internal strength.

According to one aspect of the invention there is provided a sink unit of one piece formation and comprising at least one bowl and an adjoining drainer, said unit being adapted to be mounted on an aperture work top with the bowl being located in the aperture and the drainer being supported by an adjoining supporting surface of the work top; in which the drainer is provided on its underside with one or more strengthening ribs engagable with said supporting surface.

Therefore, in the mounting of a sink unit according to the invention on an apertured work top, it is only necessary to form one aperture for the bowl and the drainer is supported via its strengthening ribs on the adjoining supporting surface of the work top, and this therefore contributes significantly to increased rigidity of the sink unit, thereby permitting reduction in wall thickness of the one piece formation without unacceptable loss of strength or rigidity.

Preferably, the unit is moulded from plastics material or pressed from stainless steel, and may be provided with a large bowl and an adjacent smaller bowl, and with the drainer adjoining the smaller bowl.

The underside of the drainer is preferably provided with a number of strengthening ribs arranged in successive V-formations and which may follow the contour on the upper side of the drainer.

According to a further aspect of the invention there is provided a sink unit of one piece formation and comprising at least one bowl and an adjoining drainer, said unit being mounted on an apertured work top with the bowl located in the aperture and the drainer supported by an adjoining supporting surface of the work top.

If required, foam or other padding may be provided between the underside of the drainer and said supporting surface.

The invention is also concerned with a novel method of installing a sink unit according to the invention on an apertured work top.

One embodiment of sink unit according to the invention will now be described in detail, by way of example only, with reference to the accompanying drawing, in which:

Figure 1 is a longitudinal sectional view of a one piece sink unit according to the invention and mounted in position on an apertured kitchen work top; and,

Figure 2 is a plan view of the assembled sink

unit and work top.

Referring now to the drawing, a sink unit of one piece formation is designated generally by reference 10 and comprises at least one bowl and an adjoining drainer. The illustrated embodiment is provided with one large bowl 11, an adjacent smaller bowl 12, and a drainer 13 which adjoins the smaller bowl 12. The unit 10 is adapted to be mounted on an apertured work top 14 with the bowls 11 and 12 located in an aperture or cut-out 15 and the drainer 13 being supported by an adjoining supporting surface 16 of the work top 14.

As can be seen from Figures 1 and 2, the underside of the drainer 13 is provided with one or more strengthening ribs 17 which engage the supporting surface 16 in order to support the drainer 13.

Therefore, in the assembly of the sink unit 10 on the work top 14, the bowls 11 and 12 are located in an aperture 15 in the work top 14, and are freely suspended in position along a peripheral flange 18 which is secured down onto the underlying marginal portion of the edge of the aperture 15, but the drainer 13 is supported by the supporting surface 16 of the work top 14 via the strengthening ribs 17, whereby this significantly increases the strength and rigidity of the sink unit, thereby permitting reduction in wall thickness of the one piece formation, as compared with existing sink mounting assemblies in which the drainer is unsupported except along its margins, and without unacceptable loss of rigidity of the assembly.

As can be seen from Figure 2, the ribs 17 are arranged in successive V-formations and which follow the contour on the upper side of the drainer.

The sink unit 10 is preferably made of moulded plastics material, and by virtue of the construction of the unit 10, it is possible to reduce the size of the aperture normally provided in a work top to accommodate existing sink units, by virtue of the arrangement such that the work top surface itself is used to support the drainer, and also to provide more support around the or each bowl of the sink unit.

Claims

1. A sink unit of one piece formation and comprising at least one bowl and an adjoining drainer, said unit being adapted to be mounted on an apertured worktop with the bowl being located in the aperture and the drainer being supported by an adjoining supporting surface of the worktop; in which the drainer is provided on its underside with one or more strengthening ribs engageable with said supporting surface.
2. A sink unit according to Claim 1, and moulded

from plastics material or press from stainless steel.

3. A sink unit according to Claim 1 or 2, and provided with a large bowl and an adjacent smaller bowl, and with the drainer adjoining the smaller bowl.

4. A sink unit according to any one of Claims 1 to 3, in which the underside of the drainer is provided with a number of strengthening ribs arranged in successive V formations.

5. A sink unit according to Claim 4, in which the upper side of the drainer has a contour following the pattern of the strengthening ribs.

6. A sink unit of one piece formation and comprising at least one bowl and an adjoining drainer, said unit being mounted on an apertured worktop with the bowl located in the aperture and the drainer supported by an adjoining supporting surface of the worktop.

7. A sink unit according to Claim 6, in which foam or other padding is provided between the underside of the drainer and said supporting surface.

8. A sink unit according to Claim 1 or 6 and substantially as hereinbefore described with reference to, and as shown in the accompanying drawings.

9. A method of installing a sink unit in an apertured worktop, the sink unit being according to any one of the preceding claims.

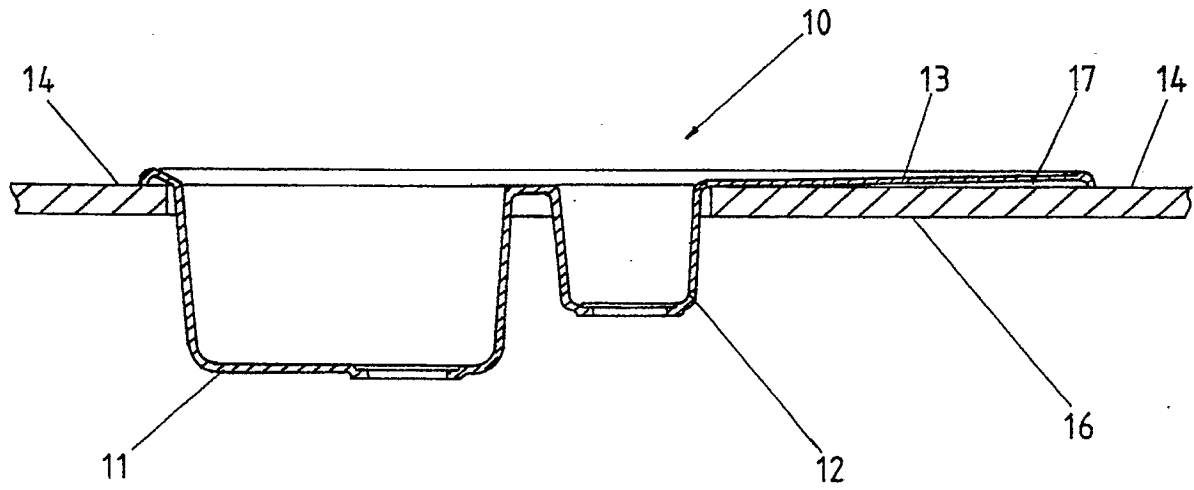


FIG. 1

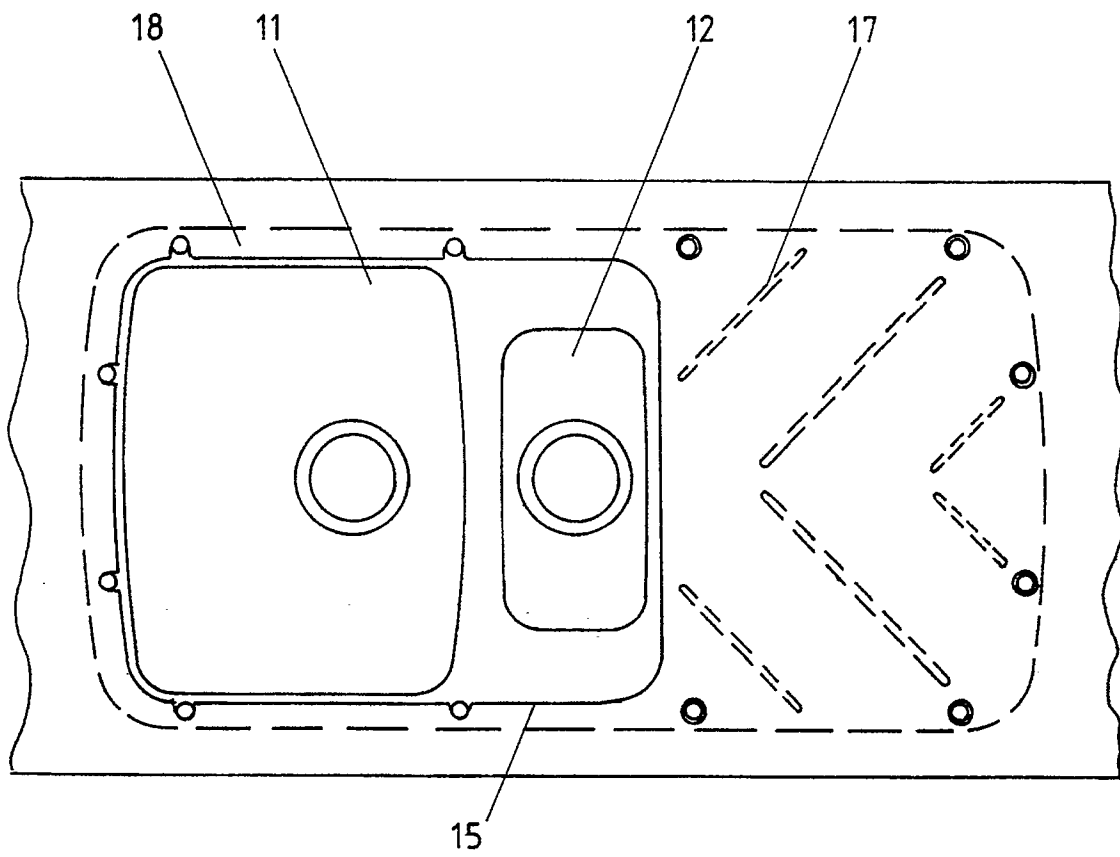


FIG. 2



European Patent
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EUROPEAN SEARCH REPORT

Application Number

EP 89 31 2217

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	DE-A-1944959 (ERWIN BONN WASCHMASCHINENFABRIK) * the whole document * ---	1, 2, 6	E03C1/33 A47L19/02
A	US-A-4854537 (WELCH) * column 1, line 59 - column 2, line 43; figure 2 * ---	1, 6	
A	CH-A-165101 (MOHRING) -----		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			E03C A47B A47L
The present search report has been drawn up for all claims			
Place of search THE HAGUE	Date of completion of the search 24 JULY 1990	Examiner BIRD C.J.	
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			