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(54) **SINK WITH WORKTOP AND BASIN**

(57) A sink (10), which comprises a worktop (11), provided with at least one opening, for the accommodation of a basin (12), and an upper border (13) which is perimetric to the opening; the basin (12) being mounted with its rim under the border (13), which protrudes toward the opening with respect to the rest of the worktop (11) cre-

ating an interspace, below the border (13), between the outer walls (14) of the basin (12) and the side (15) of the worktop (11) which is directed toward the opening; the interspace is at least partially filled with a sealing element (16).

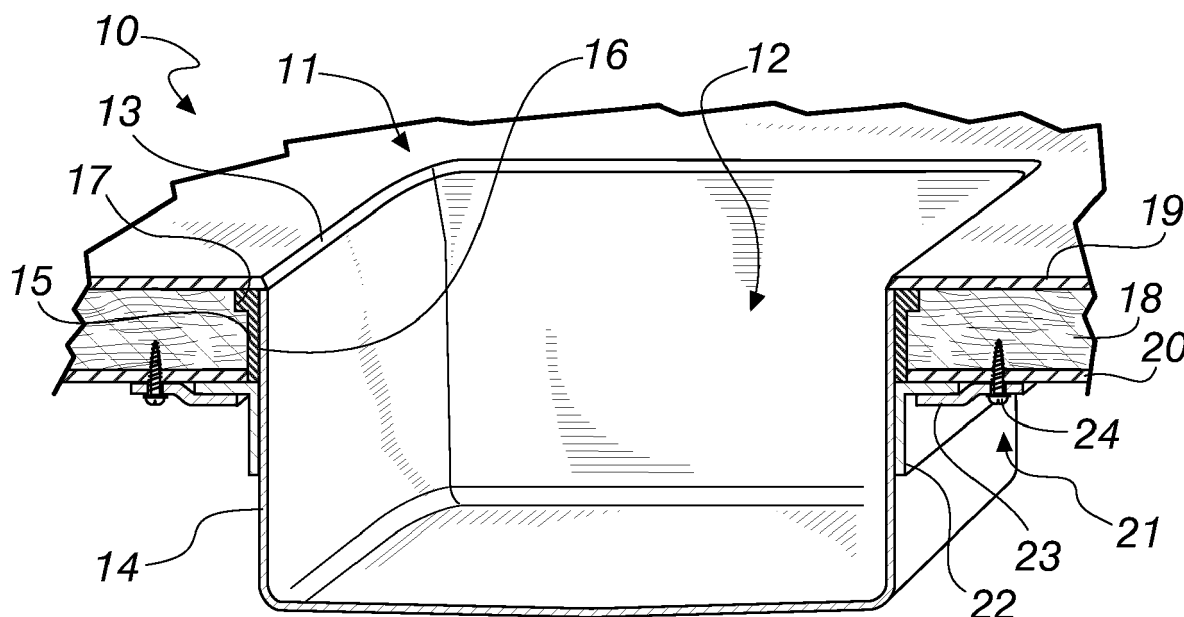


Fig. 1

Description

[0001] The present invention relates to a sink.

[0002] The sink is applied, in general, in kitchens; however, it can also be applied in other areas, for example bathrooms.

[0003] Nowadays, many types of kitchen worktops and the like are widespread, including composites that are made with a chipboard counter covered with a layer of laminate adapted to simulate the appearance of a solid counter.

[0004] Special openings are provided in the worktops which are designed to accommodate sinks and cooktops.

[0005] Typically the sink is fitted by inserting the basin into the adapted opening of the worktop, with the perimetric rim folded outward and resting on the surface, around the perimeter of the opening.

[0006] Kitchen counters are also known with laminate worktops which have an opening for the sink which is lined with the same covering applied to the worktop. The sink is mounted under the opening, and is therefore concealed at first sight.

[0007] Such conventional sinks, although widespread and appreciated, display some aspects that can be improved.

[0008] An important aspect of scope for improvement is that the sink is typically applied directly to the laminate of the worktop, with a gasket perimetric to the basin and made of acrylic material or the like, sometimes also with edging in steel, and very thick, such as to shape the upper surface of the worktop and altering its flatness.

[0009] In order to provide a sink of this type it is necessary to mill the worktop from the underside in order to obtain an adapted seat for the accommodation of the gasket.

[0010] Such sink, in addition to being complex in construction, implies a use of material and labor that significantly influence the overall cost of the product.

[0011] The aim of the present invention is to provide a sink that is capable of improving the known art in one or more of the above mentioned aspects.

[0012] Within this aim, an object of the invention is to simplify the sink in its anchoring to the worktop and to improve its final appearance.

[0013] Another object of the invention is to provide a sink that can be produced at lower cost than conventional sinks.

[0014] Furthermore, another object of the present invention is to overcome the drawbacks of the known art in a different manner to any existing solutions.

[0015] A still further object of the invention is to provide a sink that is highly reliable, easy to implement and low cost.

[0016] This aim and these and other objects which will become better apparent hereinafter are achieved by a sink according to claim 1, optionally provided with one or more of the characteristics of the dependent claims.

[0017] Further characteristics and advantages of the

invention will become better apparent from the description of a preferred, but not exclusive, embodiment of the sink according to the invention, which is illustrated by way of non-limiting example in the accompanying drawings wherein:

- Figure 1 is a cutaway perspective view of the sink according to the invention;
- Figure 2 is an enlarged detail of the sink according to the invention, in a variation of embodiment thereof.

[0018] With reference to the figures, the sink according to the invention, generally designated by the reference numeral 10, is intended preferably for kitchens and comprises a worktop 11, which has at least one opening for the accommodation of a basin 12 and an upper border 13 which is perimetric to the opening. The basin 12 is mounted with its rim below the border 13, as can clearly be seen in the accompanying figures.

[0019] The border 13 can be flared, defining an upward widening of the opening, as in the examples shown.

[0020] Advantageously, the border 13 protrudes toward the opening with respect to the rest of the worktop 11 creating an interspace, below the border 13, between the outer walls 14 of the basin 12 and the side 15 of the worktop 11 which is directed toward the opening. Such interspace is at least partially filled with a sealing element 16.

[0021] In particular, the interspace has a thicker region defined by a groove 17 which is provided on the side 15 of the worktop 11, at the connection between the border 13 and the upper rim of the basin 12.

[0022] Such groove 17 is specifically made in the connection region, to ensure the sealing between the sink and the worktop 11. The volume that it defines between the side 15 of the worktop 11, the border 13, and the outer wall 14 of the basin 12 must be completely occupied by the sealing element 16 in order to prevent infiltrations of water.

[0023] The sealing element 16 is preferably constituted by a deposit of polyurethane adhesive and, preferably, fills the volume defined by the entire interspace.

[0024] The worktop 11 preferably consists of a layered composite provided with a supporting core 18 and an upper covering layer 19 which protrudes with respect to the core 18 toward the opening so as to define the border 13.

[0025] In particular, the worktop 11 is preferably made of HPL (acronym for High Pressure Laminate) and/or stratified HPL, or of MDF (acronym for Medium-Density Fiberboard), or of chipboard enclosed between two layers of HPL.

[0026] In the examples shown, the worktop 11 also comprises a lower layer 20, which with the upper layer 19 encloses the core 18 sandwich-fashion. In other variants of worktop 11, the lower layer may not be present.

[0027] The sink 10 conveniently also comprises means of mechanically fixing 21 the basin 12 to the worktop 11.

[0028] Such means of mechanically fixing 21 comprise, according to the first variation in Figure 1, at least one upside-down L-shaped bracket 22 which is fixed with one side to the outer wall 14 of the basin 12 by way of an adhesive and with the other side underneath the worktop 11 by way of a complementary bracket 23 which is fixed thereto by way of at least one fixing screw 24.

[0029] Preferably, for a sink 10 with a square or rectangular basin, there are four brackets 22, each one extending along one side of the basin 12.

[0030] According to the variation shown in Figure 2, the means of mechanically fixing 21 comprise upside-down L-shaped brackets 22, each one fixed with one side to the outer wall 14 of the basin 12 by way of adhesive and with the other side underneath the worktop 11 by way of at least one fixing screw 24.

[0031] It should be noted that the sink described, although ensuring an adequate level of sealing, does not use elements that could create an encumbrance below the covering layer of the worktop 11, thus resulting in relief on the upper surface.

[0032] Furthermore, the sink 10 according to the invention can be made at low cost with respect to conventional sinks and in terms of construction it is simple to provide, while also making it possible to contain labor times and costs.

[0033] In practice it has been found that the invention fully achieves the intended aim and objects with a sink by virtue of which it is simple and easy to anchor the basin to the worktop, as well as being economic, and aesthetically more pleasing than what can be obtained with conventional sinks.

[0034] The invention, thus conceived, is susceptible of numerous modifications and variations, all of which are within the scope of the appended claims. Moreover, all the details may be substituted by other, technically equivalent elements.

[0035] In practice the materials employed, provided they are compatible with the specific use, and the contingent dimensions and shapes, may be any according to requirements and to the state of the art.

[0036] The disclosures in Italian Patent Application No. 102017000034256 from which this application claims priority are incorporated herein by reference.

[0037] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

perimetric to said opening, said basin (12) being mounted with its rim under said border (13), said sink (10) being **characterized in that** said border (13) protrudes toward said opening with respect to the rest of said worktop (11) creating an interspace, below said border (13), between the outer walls (14) of said basin (12) and the side (15) of said worktop (11) which is directed toward said opening, said interspace being at least partially filled with a sealing element (16).

2. The sink according to claim 1, **characterized in that** said interspace has a thicker region defined by a groove (17) which is provided on said side (15) of said worktop (11), at the connection between said border (13) and the upper rim of said basin (12).
3. The sink according to one or more of the preceding claims, **characterized in that** said sealing element (16) is constituted by a deposit of polyurethane adhesive.
4. The sink according to one or more of the preceding claims, **characterized in that** said worktop (11) consists of a layered composite which has a supporting core (18) and an upper covering layer (19) which protrudes with respect to said core (18) toward said opening so as to define said border (13).
5. The sink according to one or more of the preceding claims, **characterized in that** it comprises means of mechanically fixing (21) said basin (12) to said worktop (11).
6. The sink according to one or more of the preceding claims, **characterized in that** said means of mechanically fixing (21) comprise at least one upside-down L-shaped bracket (22) which is fixed with one side to the outer wall (14) of said basin (12) by way of an adhesive and with the other side underneath said worktop (11) by way of a complementary bracket (23) which is fixed thereto by way of a fixing screw (24).
7. The sink according to one or more of the preceding claims, **characterized in that** said means of mechanically fixing (21) comprise at least one upside-down L-shaped bracket (22) which is fixed with one side to the outer wall (14) of said basin (12) by way of adhesive and with the other side underneath said worktop (11) by way of a fixing screw (24).

Claims

1. A sink (10), which comprises a worktop (11), provided with at least one opening, for the accommodation of a basin (12), and an upper border (13) which is

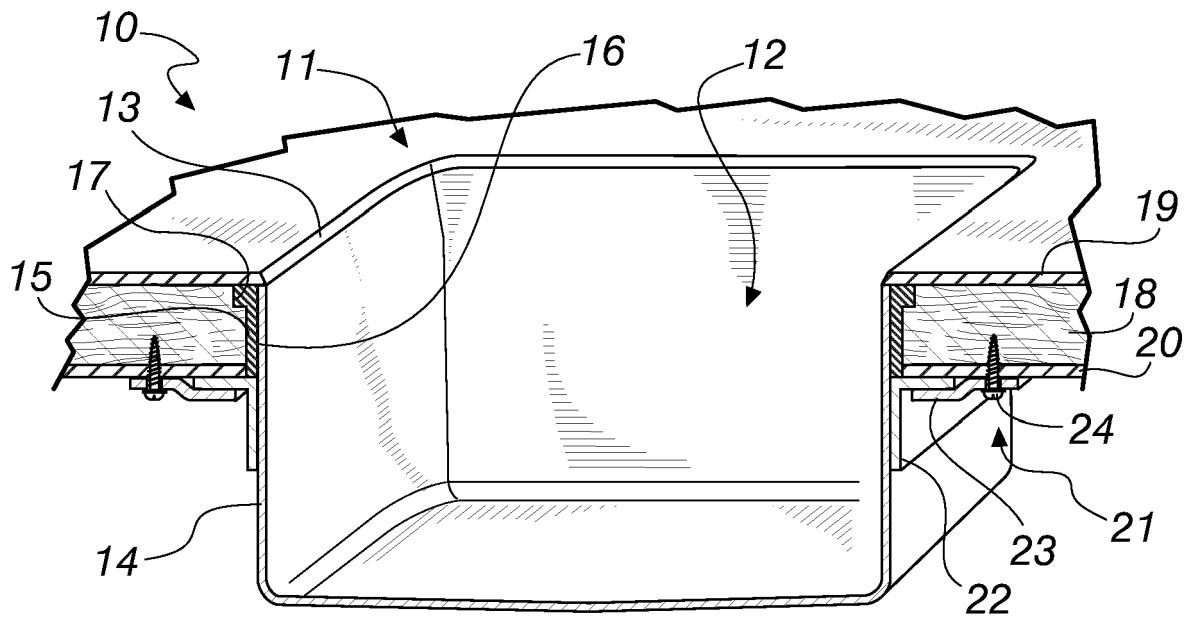


Fig. 1

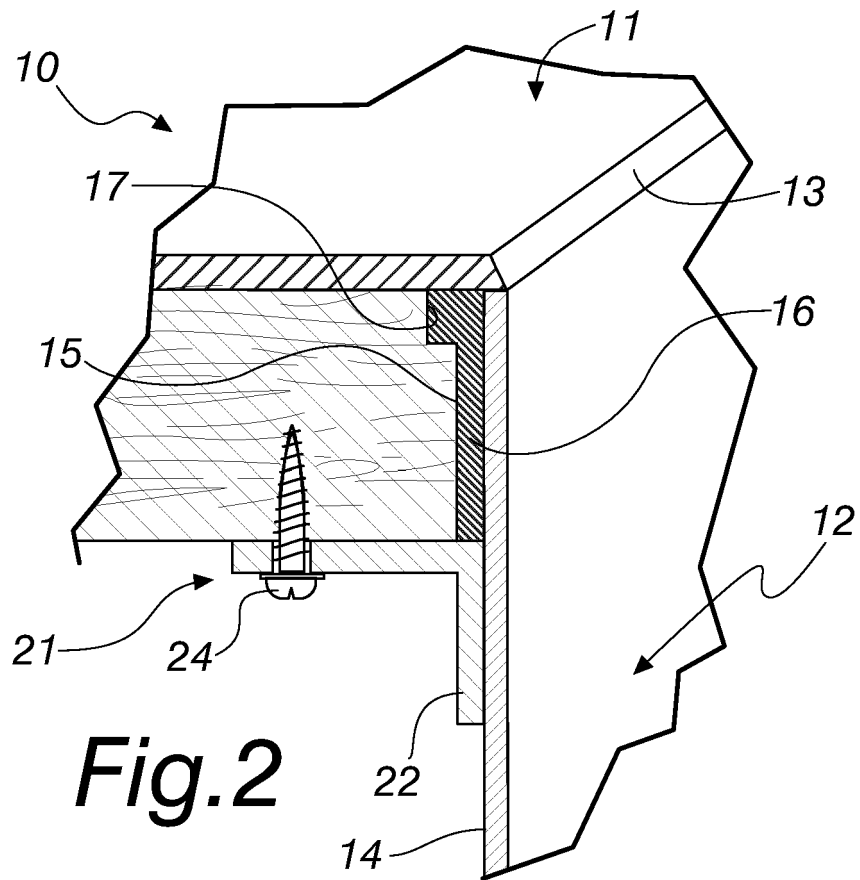


Fig. 2



EUROPEAN SEARCH REPORT

Application Number
EP 18 16 3996

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	FR 2 757 031 A1 (GENTE SA [FR]) 19 June 1998 (1998-06-19) * page 3, line 5 - line 25; figures 2a,2b *	1-7	INV. E03C1/33
X	US 2015/354188 A1 (HOCAOGLU MEHMET [US]) 10 December 2015 (2015-12-10) * paragraph [0064] - paragraph [0066] * * paragraph [0078] - paragraph [0081] * * paragraph [0088] - paragraph [0094]; figures 6,6A,18 *	1-7	
A	DE 71 28 766 U (BLANC & CO) 7 October 1971 (1971-10-07) * page 2, last paragraph - page 3, paragraph 2 *	1-7	
			TECHNICAL FIELDS SEARCHED (IPC)
			E03C A47K A47B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 16 July 2018	Examiner Van Bost, Sonia
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	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 18 16 3996

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The members are as contained in the European Patent Office EDP file on
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16-07-2018

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FR 2757031	A1	19-06-1998	NONE
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- IT 102017000034256 [0036]