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(71) Applicant: **Casas Ornelas, Roberto Aurelio**
C.P. 45136 Zapopan Jalisco (MX)

(72) Inventor: **Casas Ornelas, Roberto Aurelio**
C.P. 45136 Zapopan Jalisco (MX)

(74) Representative: **Plasseraud IP**
66, rue de la Chaussée d'Antin
75440 Paris Cedex 09 (FR)

Remarks:
The references to the drawing no. 5 are deemed to be deleted (Rule 56(4) EPC).

(54) ENRICHED COVER SYSTEM AND PROFILES FOR SPILL CONTAINMENT

(57) The present invention relates to a system of enriched cover and profiles for containment of spills, which comprises an enriched cover formed by a board, a waterproofed molding and a laminate with aesthetic, functional and sanitary characteristics, and three types of profiles: a structural and fitting profile whose function is to give structure to the enriched cover at the same time that, by its inclination inferior to 45° helps to direct spills of liquids to be deposited in a second structural and containment profile including a longitudinal gutter where spilled liquids are contained. In case of a major spill, the second structural and containment profile interacts with a third bevel-like profile matching at 45° with the top edge of the doors or drawers of the table, cabinet or furniture provided with the system. The third bevel-like profile acts as a handle of doors and drawers of furniture, and also directs spilled liquids to the gutter in the structural and containment profile.

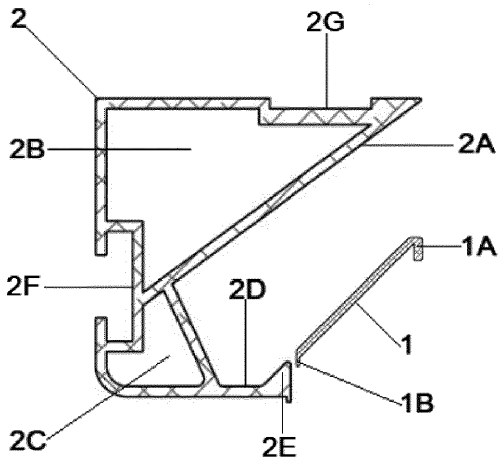

Fig. 1

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Description

I. FIELD OF THE INVENTION

[0001] The present invention relates to an enriched cover system and profiles for containment and channeling of spills and leaks for the manufacture of mainly furniture of integral kitchens, and also in work tables, cabinets, cupboards or shelves used in dining rooms, workshops and laboratories. Hence, this invention is considered within the technological area pertaining to mechanics.

II. PRIOR ART

[0002] The need to industrialize the manufacturing process and assembly of bars, cabinets and islands of built-in kitchens, laboratories, dining rooms and workshops among others, based on the optimization of space, function, design and versatility of materials that meet market demand has allowed through design and technology studies the development of several alternatives. However, there had not been contemplated any one to contain liquid spills on work surfaces, which affects their efficiency. An option offered by the market for solving this inconvenience are the gutters in the form of finishes integrated to the work surfaces, and its variant as rails or gutters that are purchased separately, which can be assembled with certain problems to the furniture (namely, tables, work tables, cabinets, cupboards or kitchen or laboratory shelves, etc.).

As profiles or profile systems were not found in consulted patents databases, specialized magazines or commercial publications, it is deduced that there are neither profiles nor profile systems to contain spills of liquids on work surfaces in kitchens, workshops or laboratories, among others, which incorporate the characteristics proposed in the preferred embodiment of invention.

SUMMARY OF THE INVENTION

[0003] One of the aims of this invention is to provide a novel enriched cover system and profiles for containment of spill and runoff, which optimizes handling and durability of chipboards, MDF or any other boards used on work surfaces, cabinets, cupboards or shelves of kitchens, laboratories, industrial lunchrooms, workshops, etc., which can be affected by the humidity produced by the handling of liquids on them.

[0004] Another purpose of this novel invention is to provide an enriched cover system and profiles for containment of spill and runoff, wherein the cover or board comprises a finish consisting in a pre-applied molding enriched by waterproofing and seals that prevents the passage of moisture caused by liquid spills on them, thereby increasing the durability of the covers of tables, furniture or cabinets.

[0005] A further purpose of this invention is to provide an enriched cover system and profiles for containment of spills and/or runoffs, wherein the profiles and the board that forms the cover interact with each other to provide guidance and support to the furniture manufactured by this system.

[0006] Another purpose of the enriched cover system and profiles to contain and channel spills and/or runoff is that its calculation and design allows a perfect coupling when assembled to different degrees to adapt to the use of spaces where installed and used.

[0007] Yet another purpose of this enriched cover system and profiles for containment of spills and/or runoff is to generate a clean and continuous visual effect while containing spilled liquids on the surfaces of furniture that by action of gravity runoff towards the doors or drawers of lower cabinets or cupboards, or even directly to the floor. This novel system contains the external runoff and/or those that may slip inside the cabinets or cupboards that can cause corrosion or generate sources of infection.

[0008] Another specific purpose of this invention is to provide an enriched cover system and profiles for containment of spills and/or runoff, which allow the use of hidden bevels at certain highly efficient degrees of inclination instead of external handles that generally obstruct or impede the free movement of people, and occupy an extra external space of the cabinets, cupboards or shelves in which they are used.

[0009] Still another purpose of the present invention is to provide an enriched cover system and profiles for containment of spills and/or runoff, wherein the hidden bevels acting as handles allow to direct the liquids spilled on the surfaces towards another complementary profile to contain jointly spilled liquids. Also, the proposed system allows to hide imperfections of machining or handling of doors or drawers of cabinets, cupboards or shelves, because it covers the fastening area where more wear and tear is generated.

[0010] Finally, the benefits of the innovative proposal are consolidated through the enriched cover system and profiles for containment of spills and/or runoff, wherein the cover comprises a board having a molding enriched with waterproofing pre-assembled on its longitudinal edge and three types of profiles, namely: a structural and fitting profile where said cover is assembled; a structural and containment profile where the structural and fitting profile is held; and a bevel-like profile that terminates the outer edges being placed preferably angled at 45° to be able to "hug" the upper edges of cupboard doors, cabinets or shelves and also direct by that direction spilled liquids on its surfaces towards the structural and containment profile.

BRIEF DESCRIPTION OF THE FIGURES

[0011]

Figure 1 is a side view only of the front section of the

enriched cover conforming the novel enriched cover system and profiles for containment of spills and or runoff.

Figure 2 is the front section in side view of the elements and assembly form of the enriched cover conforming this novel system.

Figure 3 is a side view of the assembly of the elements that conform the new enriched cover system and profiles for containment of spills and/or runoff.

Figure 4 is a side view of the enriched cover system and profiles for containment of spills and/or runoff already assembled.

Figure 5 is a top side perspective view of the enriched cover system and profiles for containment of spills and/or runoff, which shows the assembly of a piece of furniture, table or cabinet.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT OF THE INVENTION

[0012] The novel enriched cover system and profiles for containment of spills and/or runoff of the present invention, allow to optimize the structural, materials and assembly of tables, work tables, shelves, cupboards and cabinets used in kitchens, lunchrooms, workshops and laboratories among others because as shown in Figure 1, the system comprises an enriched cover, hereinafter defined as assembled cover (1), which is enriched because it consists of a board (1A) as depicted in Figure 2, made, preferably but not necessarily, of agglomerate or MDF but which can be of any other suitable material, to which a waterproof molding (1B) is attached all along it in the manner of a nose; said cover being previously treated with a waterproofing process to prevent liquids or humidity from leaking into the board (1A) that forms the assembled cover (1). Once the waterproof molding (1B) is adhered to the board (1A), a finishing step is carried out from a laminate (1C) by using materials such as synthetic products, stainless steel sheet or other non-porous laminates that provide aesthetic, sanitary and functional functions in the furniture that carries this new cover assembled (1).

[0013] As shown in Figure 3, besides the cover assembled (1), the enriched cover system and profiles for containment of runoff also comprise a structural and fitting profile (2), a structural and containment profile (3), and a 45°-angled bevel-like profile (4). The assembled cover (1) is coupled with the structural and fitting profile (2) through a slot (5), previously impregnated with an adhesive, which runs along the entire length of the front of the waterproof molding (1B) that forms the cover (1) by means of a pin (6) arranged horizontally along the rear upper part of the structural and fitting profile (2), said pin fitting perfectly in the slot (5) of the assembled cover (1).

[0014] The structural and fitting profile (2) has a duct (7) along its entire length, which has several functions, e.g. to provide the structural and fitting profile (2) with the necessary strength, facilitate the required matching when assembled tables or cabinets at different angles to enhance the management of spaces; and orientate and place side caps in case of isolated tables or cabinets. Throughout the same structural and fitting profile (1), an upper channel (8) and a lower channel (9) are provided, which act both as a space for the use of screws or bolts for an additional fixation to the assembled cover (1), and as spaces to place sealing or adhesive means to prevent moisture or liquids from passing into the tables or cabinets manufactured by this novel system.

[0015] Once fastened the assembled cover (1) to the structural and fitting profile (2), the latter sits and is sealed on the structural and containment profile (3) similar to a hollow rectangle trapezoid, which has a eyebrow-type containment channel (10) along its entire lower front part, which will act jointly with the bevel-like profile (4) when happened a liquid spill on the assembled cover (1) incorporated into any furniture or cabinet. The structural and containment profile (3) is assembled to the structure or chassis (11) of the table or cabinet of which it will form part, while the bevel-like profile (4) will be assembled to the upper edge of the doors or drawers (12) when the table or the cabinet carries them.

[0016] In Figure 4, the integration of all the elements of the enriched cover system and profiles for containment of runoff can be seen, wherein the assembled cover (1) is inserted into the pin (6) of the structural and fitting profile (2), which in turn sits on and seals the structural and containment profile (3) that is mounted on the chassis or structure (11) of the table or cabinet of which it will be a part, and which will interact with the bevel-like profile (4) which is mounted on the upper edge of the doors or drawers (12) to contain spills of liquids on the assembled cover as indicated by the inserted arrow.

[0017] Figure 5 is a perspective view of the assembly of a table or cabinet using the assembled cover (1) onto the structural and fitting profile (2) that is sealed and sits on the structural and containment profile (3) mounted on the structure or chassis (11) of the cabinet, which interact in case of spillage of liquids on the assembled cover (1) with the bevel-like profile (4) placed on the top edge of doors or drawers (12) of the table or cabinet where installed this innovative enriched cover system and profiles to contain runoff.

Claims

1. An enriched cover system and profiles for spill containment, said system comprising an enriched cover consisting of a board, a waterproof molding and a laminate having aesthetic, functional and sanitary characteristics, and three types of profiles: a first structural and fitting profile to give structural to the

enriched cover and also, due to its lower inclination, direct spills of liquids to a second structural and containment profile; said second profile including a longitudinal gutter where spills of liquids are contained; and a third bevel-type profile interacting with said second profile to contain a major spillage in the event of a major spill; said third profile being placed to coincide with the top edge of the doors or drawers of the table, cabinet or furniture provided with the system; said third profile also acting as a handle and directing the spilled liquids to the gutter of the second structural and containment profile.

2. An enriched cover system and spill containment profiles in accordance with claim 1, wherein the profiles are manufactured with versatile colors, textures and designs, which allow to interact with colors, textures and designs of the cover, which also is a novel part of the system and said cover may interact with other furniture elements.

3. An enriched cover system and spill containment profiles in accordance with claim 1, wherein the enriched cover comprises a board to which a molding of impermeable material or other organic material is adhered along its front edge, which is previously treated by a waterproof process to ensure that liquids or moisture penetrate not beyond the board.

4. An enriched cover system and spill containment profiles in accordance with claim 1, wherein the board including the waterproof molding is laminated on its upper face with synthetic products, metal sheets or other non-porous laminates that offer aesthetic and sanitary functions to the furniture provided with said cover.

5. An enriched cover system and profiles for containment of spills according to claim 1, wherein the molding comprises a slot extending throughout the same, said slot serving to couple and seal the molding to the structural and fitting profile.

6. An enriched cover system and profiles for containment of spills according to claim 1, wherein the first structural and fitting profile comprises a spigot extending along the length of the upper rear part of said first profile; said spigot being coupled with the slot in the molding to connect said first profile with the molding.

7. An enriched cover system and spill containment profiles according to claim 1, wherein the first structural and fitting profile comprises an upper and a lower gutters extending therethrough which have sealants to prevent moisture or liquids from entering into the furniture or cabinets; said gutters also providing a space to fix the structural and fitting profile to the bottom of the enriched cover.

8. An enriched cover system and spill containment profiles according to claim 7, wherein said lower gutter of the first structural and fitting profile acts as anti-spill device when it is not engaged to the second structural and containment profile.

9. An enriched cover system and spill containment profiles according to claim 1, wherein the structural and fitting profile comprises a circular duct extending innerly therealong, thereby reducing the material and weight of said profile and also serving to facilitate the matching when assembled with tables or cabinets having different angles; the inner front face of said profile has a 45° slope to direct the liquids spilled on the surface of the furniture towards the structural and containment profile.

10. An enriched cover system and spill containment profiles according to claim 1, wherein the structural and fitting profile is seated and sealed on the structural and containment profile to interact jointly to direct the liquids spilled on the surface of the furniture to the gutter in the structural and containment profile.

11. An enriched cover system and spill containment profiles according to claims 1, further comprising a structural and containment profile similar to a rectangular trapezoid; said profile comprising a flange extending along the lower front portion, which acts as a gutter to contain spilled liquids and direct them through the 45°-angled section of the structural and fitting profile; wherein said structural and containment profile sits on the perimeter on the upper part of the chassis or structure of the shelf, table or cabinet.

12. An enriched cover system and spill containment profiles in accordance with claim 1, wherein the 45° bevel-like profile is placed and sealed on the upper edge of the drawers or doors of the shelf, table or cabinet to contain spills of liquids that drain towards the bottom of the furniture; said bevel-like profile coinciding with the gutter of the structural and containment profile to deposit the spilled liquids in said gutter without leaking inside the furniture.

13. An enriched cover system and spill containment profiles according to claim 1, wherein the 45° bevel-like profile also acts as a handle to open the doors and/or drawers; said profile also allows to hide any imperfections resulting from working the material with an inclination..

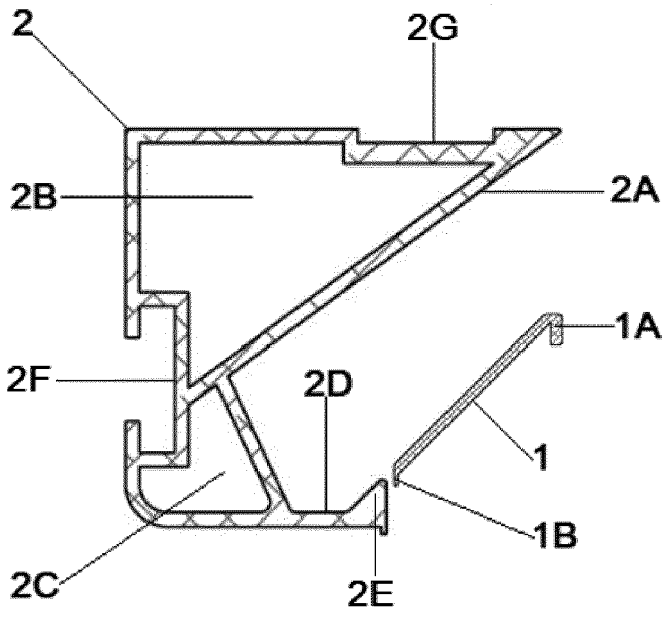

Fig. 1

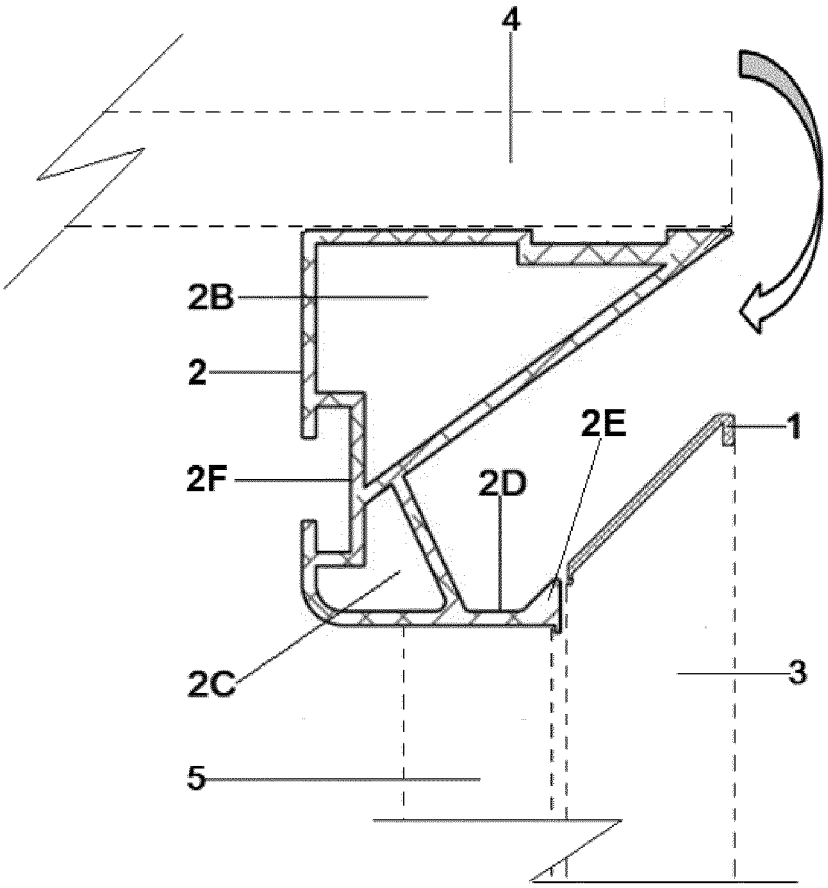

Fig. 2

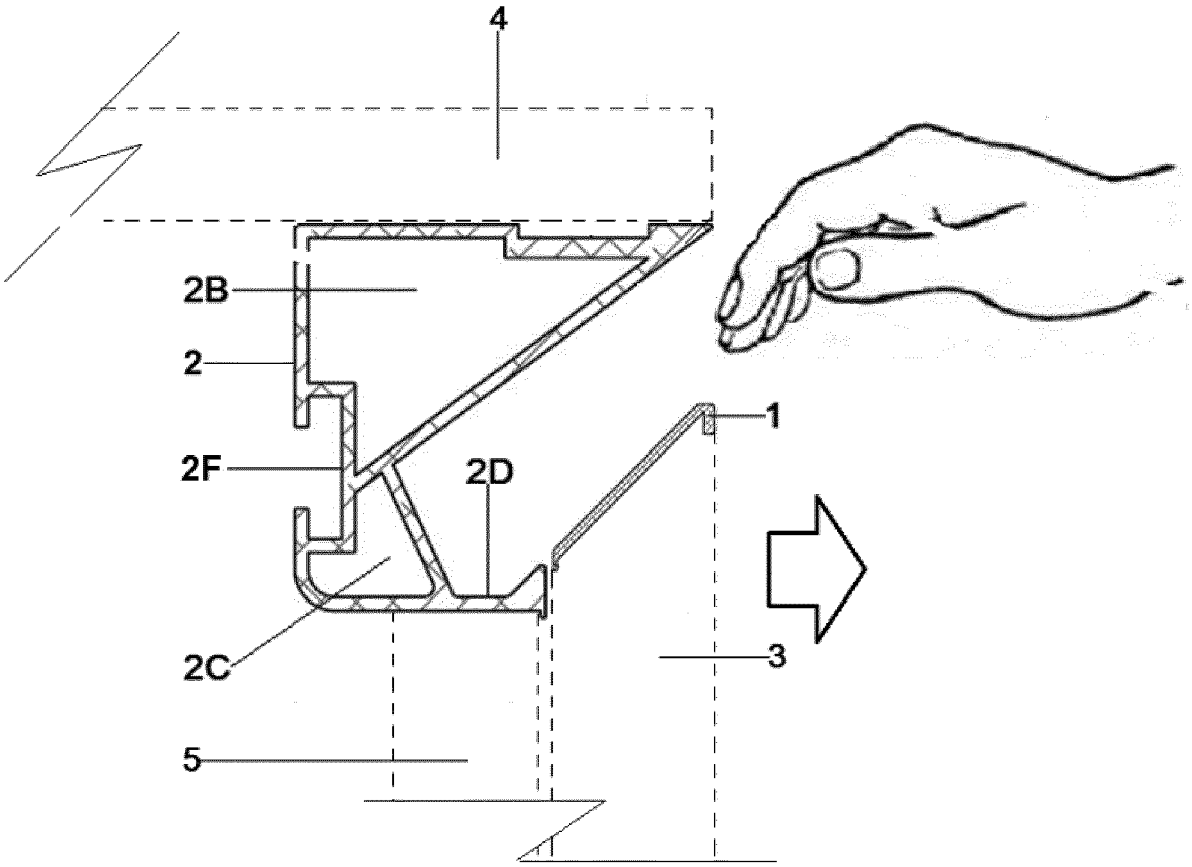

Fig. 3

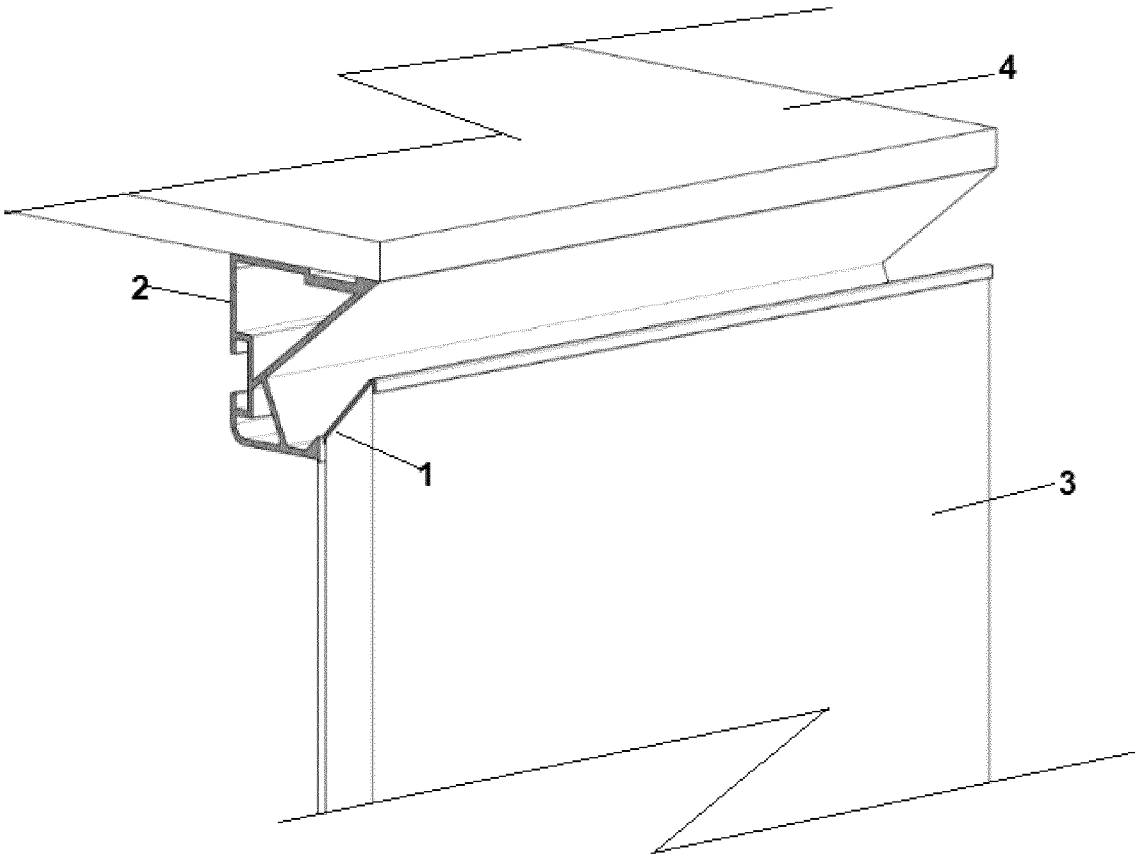

Fig. 4

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EUROPEAN SEARCH REPORT

Application Number
EP 18 17 7982

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	US 2006/125355 A1 (HAUCK ROBERT F [US]) 15 June 2006 (2006-06-15) * paragraph [0035] - paragraph [0060]; figure 1 *	1-13	INV. A47B13/08 A47B77/02 A47B95/02
X	DE 30 36 727 A1 (ZOELLING PAUL AG [CH]) 13 May 1982 (1982-05-13) * page 8 - page 12; figure 2 *	1-13	
X	DE 12 87 282 B (OSTA WERKE GMBH) 16 January 1969 (1969-01-16) * paragraph [0011] - paragraph [0013]; figure 1 *	1-13	

TECHNICAL FIELDS SEARCHED (IPC)

A47B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	9 November 2018	Ottesen, Rune

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 18 17 7982

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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09-11-2018

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82