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(54) Rim for a household appliance work top.

(57) The present invention relates to a rim for a household appliance top, made in one piece with a self-supporting structure, i.e. requiring no additional sections for obtaining sufficient mechanical strength, which is provided for by means of ribs which increase the mechanical strength of the rim.

Provision is also made for a fold-down side on the rim for inserting the top which is then enclosed by and secured to the rim itself.

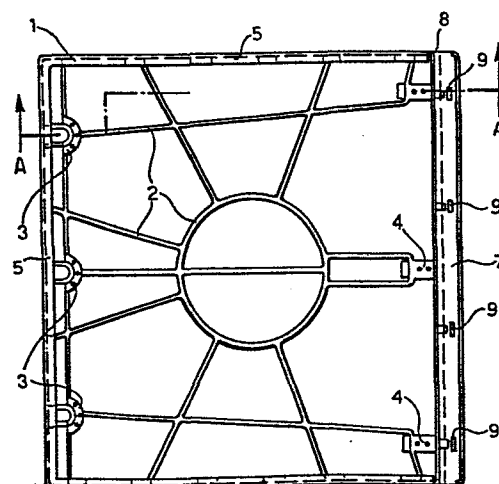
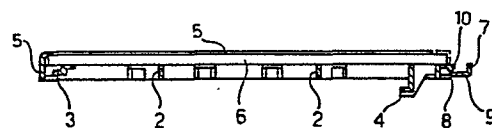


FIG. 1

- 1 -

"Rim for a household appliance work top"

The present invention relates to a rim for a household appliance work top.

Certain types of washing machines, dish-washing machines, clothes, driers and small refrigerators, as well as all household 5 appliances of about 85 cm in height are fitted with work tops.

These generally come in various thicknesses, depending on the material employed, and are supported by metal sections or sheet and held together by rims usually made of metal.

Moreover, for the work top to be fitted inside the section grid 10 structure and rim, the latter cannot be made in one piece but must have at least one side assembled after the work top has been fitted inside.

A drawback common to all existing systems is that a number of separate components are needed: the work top, the metal supporting 15 structure and at least two rim sections, which not only increases material cost but also complicates the assembly procedure.

The aim of the present invention is to overcome these drawbacks by providing a one-piece, self-supporting rim for a household appliance work top which needs no additional supporting sections for 20 the work top, but which in itself acts as a support and has no separate parts.

Further aims of the present invention are to ensure the said

rim is reliable, cheap to manufacture and easy to assemble.

With these aims in view, the present invention relates to a rim for a household appliance work top, characterized by the fact that it includes supporting means 2 placed inside its sides, forming a single body with the rim 1, for supporting said work top 6.

The invention will now be described in detail with reference to the attached drawings, provided by way of a non-limiting example, in which:

- fig. 1 shows a cross section and top view of a first preferred arrangement of the rim covered by the present invention;

- fig. 2 shows a cross section and top view of a second preferred arrangement of the rim covered by the present invention, and

- fig. 3 shows a cross section and top view of a third preferred arrangement of the rim covered by the present invention.

Fig. 1 shows a rim 1 press molded from ABS (acrylonitrile-butadiene-styrene) or other plastics with ribbing 2 to form an essentially radial structure. The ribs 2 connect supporting sections 3 and 4, for securing rim 1 to the appliance body (not shown in the diagram), to three sides 5 of rim 1 so as to provide a compact overall structure.

The three sides 5 of rim 1 are rigid and bent upwards 90° in the form of an upside-down "L", as shown more clearly in section A-A of the top view, so as to enclose and secure a work top 6 which is inserted from a fourth side 7 which is also shaped like an upside-down "L". To prevent injury, the edges of sides 5 and 7 are rounded off.

The fourth side 7 of rim 1 is fitted to the said rim 1 by means of a hinge film 8 which can be folded down. The longest side of side 7 has a number of rectangular openings 9 to which correspond a number of hooks 10 inside rim 1.

During assembly, the fourth side 7 of rim 1 is open for

inserting work top 6 between ribs 2 and the other three sides 5.

Once the work top 6 has been inserted, the fourth side 7 of rim 1 is folded up along hinge film 8 until hooks 10 engage with the rectangular openings 9 on it and the top section covers the exposed end of work top 6 so as to form a compact unit of rim 1, its four sides 5, 7 and work top 6.

For reasons of appearance, the fourth side 7 of rim 1 may be assembled at the back of the appliance.

Work top 6 can be made of wood, metal or plastic.

10 A preferred arrangement consisted of 8 mm thick faced chipboard, consisting of a chipboard core faced on both sides with epoxy resin (e.g. melamin), or 3 mm thick laminated plastic, consisting of a compressed chipboard core with balance paper on the bottom and epoxy resin (e.g. melamin) on top.

15 Clearly, ribs 2 of rim 1 must be stronger for laminated plastic than for faced chipboard in that 8 mm thick faced chipboard is stronger than 3 mm thick laminated plastic.

In any case, ribs 2 must be designed taking into account the type of work top fitted inside rim 1.

20 Fig. 2 shows the same parts and numbers as fig. 1 but with a grid type rib structure and a larger number of ribs than in fig. 1.

The grid arrangement and extra ribs 2 are more suitable for work tops with very poor mechanical strength.

Fig. 3, in which parts common to figs 1 and 2 are indicated
25 using the same numbers, differs in that all four sides 11 of rim 1 are secured to it by fold-down hinge films 12, that all four sides 11 have holes 13 at the top next to where work top 6 is inserted, and that rim 1 has no hooks 10.

When commencing assembly, all four sides 11 of rim 1 are open,
30 work top 6 is placed on top of ribs 2 and the four sides 11 folded up to cover the ends of work top 6 to which the sides 11 are then secured by screws (not shown in the diagram) through holes 13.

Obviously, screws can also be used for securing the fourth side 7 of rim 1 in the figs. 1 and 2 arrangements just as hooks can be used in the fig. 3 arrangement.

The advantages of the work top rim described will be clear from 5 the above explanation.

In particular, it is self-supporting, with no need for additional sections for obtaining the required strenght, and is made in one piece which provides for easy manufacture, assembly and maintenance.

10 To those skilled in the art it will be clear that changes can be made to the work top rim described by way of a non-limiting example, without, however, departing from the scope of the present invention.

CLAIMS

- 1) Household appliance work top rim, characterized by the fact that it includes supporting means (2) placed inside its sides, forming a single body with the rim (1), for supporting said work top 5 (6).
- 2) Household appliance work top rim as described in claim 1, characterized by the fact that said supporting means include a number of ribs (2) forming a framework on which said work top (6) leans.
- 10 3) Household appliance work top rim as described in claim 2, characterized by the fact that a first number of the said ribs (2) are connected to supporting sections (3, 4) by which the rim (1) is connected to the household appliance, while a second number are connected to the sides (5, 7) of the said rim (1).
- 15 4) Household appliance work top rim as described in claim 2, characterized by the fact that the said frame arrangement is essentially radial.
- 5) Household appliance work top rim as described in claim 2, characterized by the fact that the said frame is arranged 20 essentially in the form of a grid network.
- 6) Household appliance work top rim as described in one or more of the previous claims, characterized by the fact that it is press molded in plastic.
- 7) Household appliance work top rim as described in claim 2, 25 characterized by the fact that the said work top (6) is made of 5-10 mm thick chipboard.
- 8) Household appliance work top rim as described in claim 2, characterized by the fact that the said work top (6) is made of 2-4 mm thick laminated plastic.
- 30 9) Household appliance work top rim as described in claim 1, characterized by the fact that it has three rigid sides (5) and a fourth fold-down side (7) for inserting the work top (6).

10) Household appliance work top rim as described in claim 9, characterized by the fact that the said three rigid sides (5) are turned upwards in the form of an upside-down "L" and have rounded edges.

5 11) Household appliance work top rim as described in claim 9, characterized by the fact that the said fourth fold-down side (7) is secured to the said rim (1) by a hinge film (8).

12) Household appliance work top rim as described in claim 9, characterized by the fact that the said fourth fold-down side (7) is
10 also in the form of an upside-down "L" with rounded edges.

13) Household appliance work top rim as described in claim 9, characterized by the fact that the said fourth fold-down side (7) has rectangular openings (9).

14) Household appliance work top rim as described in claim 9,
15 characterized by the fact that it has hooks (10) corresponding to the said rectangular openings (9) on the said fourth fold-down side (7) so that, once the said work top (6) has been fitted inside the said rim (1), the said fourth fold-down side (7) can be raised to engage the said hooks (10) inside the said rectangular openings (9).

20 15) Household appliance work top rim as described in claim 9, characterized by the fact that the said fourth fold-down side (7) has holes (13) so that, once the said work top (6) has been fitted inside the rim (1), the said fourth fold-down side (7) can be raised and screwed to the said work top (6) through the said holes (13).

25 16) Household appliance work top rim as described in claim 9, characterized by the fact that the said rim (1) is designed so that the said fourth fold-down side (7) can be assembled at the back of the appliance.

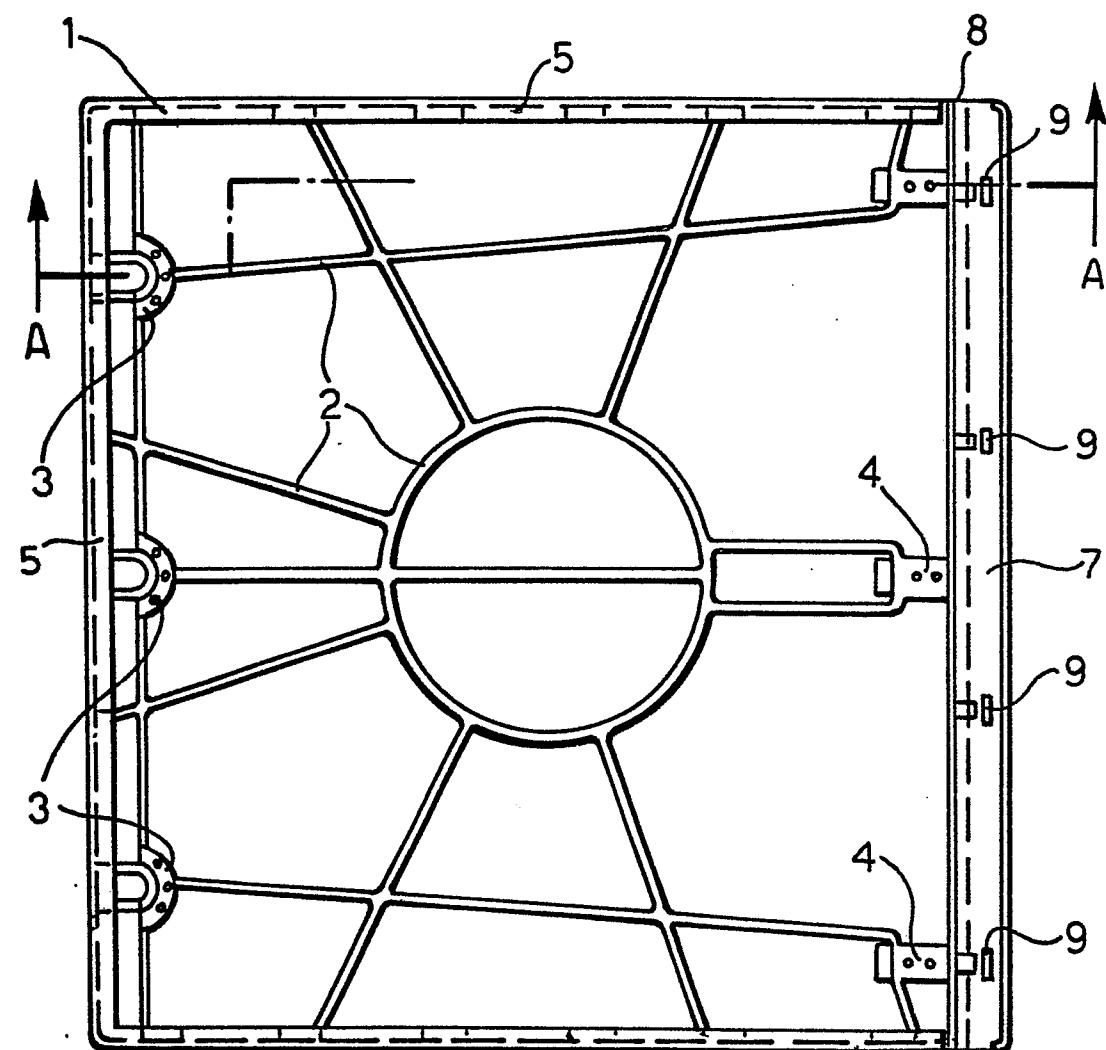
17) Household appliance work top rim as described in claim 1,
30 characterized by the fact that all four sides (11) can be folded-down and are secured to the said rim (1) by means of a hinge film (12).

18) Household appliance work top rim as described in claim 17, characterized by the fact that the said four fold-down sides (11) have rectangular openings (9).

19) Household appliance work top rim as described in claim 17, 5 characterized by the fact that it has hooks (10) all round so that, once the work top has been placed on the said ribs (2), the said fold-down sides (11) can be raised to engage the said hooks (10) inside the said rectangular openings (9).

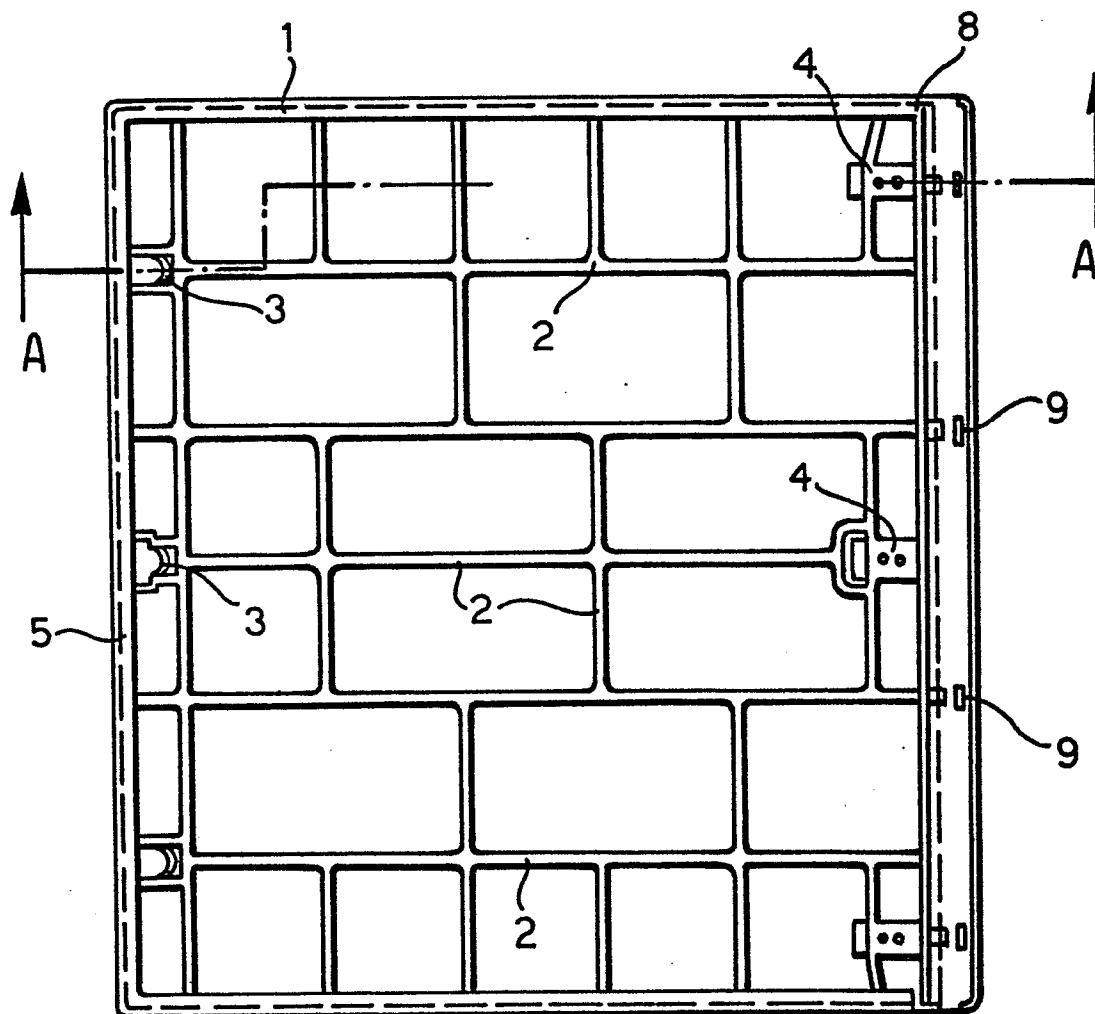
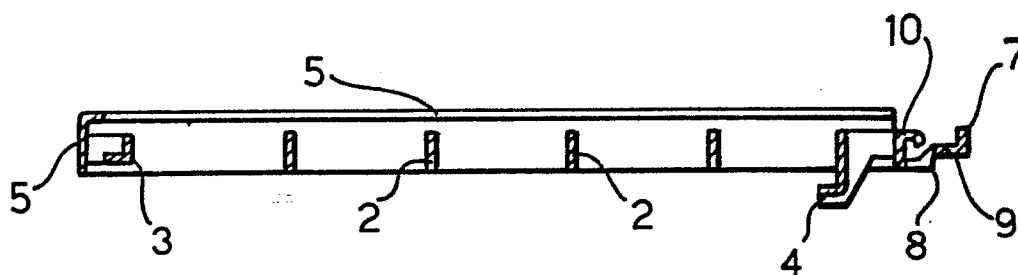
20) Household appliance work top rim as described in claim 17, 10 characterized by the fact that the said four fold-down sides (11) have holes (13) so that, once the work top has been placed on the said ribs (2), the said fold-down sides (11) can be raised and screwed to the said work top (6) through the said holes (13).

FIG. 1



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FIG. 2



3/3

FIG. 3

