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In accordance with the last part of Article 14 (2) EPC the applicant has filed a text with which it is intended to bring the translation into conformity with the original text of the application.

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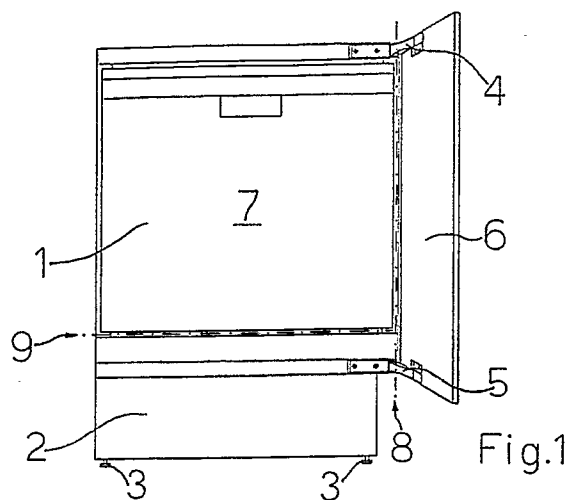
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⑤④ Door for household appliance.

57 The present invention relates to a system for attaching a protective, aesthetical and functional covering to a dishwashing machine, comprising a cabinet which houses a washing chamber and means to wash the dishes and which comprises a door (1) allowing the access to the washing chamber, which can be open swinging in respect of its axis. The main feature of the invention is that said covering is realized as a lid (6) which covers at least partially the frontal side of the cabinet of the dishwashing machine and which can be open by a movement independent in respect of the door (1) of the dishwashing machine.



## DOOR FOR HOUSEHOLD APPLIANCE

The present invention relates to a system for attaching a protective, aesthetical and functional covering to a dishwashing machine, comprising a cabinet which houses a washing chamber and means to wash the dishes and which comprises a door allowing the access to the washing chamber, which can be open swinging in respect of its axis.

A system of this type is used to allow that the elements, kitchen furniture and household appliances, placed in a room of the house, could have a stylistic line with uniform and agreeable color.

To allow that, the household appliances industry has realized in the last years cabinets for washing machines, dishwashing machines and refrigerators which can match the other elements of a kitchen or a bathroom.

Among these solutions we can mainly remember dishwashing machines presenting, on the door, panels having color and thickness similar to the modular components of the kitchen.

These panels have the drawback of limiting the movements of the door or of undergoing malformations due to the heat exhaled by the machine. In order to avoid all the above cited problems, different solutions have been investigated for the casing of the panels such as elastic hook or rails; often complicate kinematic motions have been used to allow the panel to move together with the door, so that the panel could move without interferences with the basement of the dishwashing machine.

It is clear that these artifices have in general disadvantages for the high cost and for the insufficient usefulness for the user.

Purpose of the present invention is to obviate the cited drawbacks of the known systems, teaching how it is possible to obtain a system for attaching a simple and functional covering to a dishwashing machine, suitable for reduced dimensions and/or built-in appliances.

To achieve such purpose the aim of the present invention is a system for attaching a protective, aesthetical and functional covering to a dishwashing machine, comprising a cabinet which houses a washing chamber and means to wash the dishes and which comprises a door allowing the access to the washing chamber, which can be open swinging in respect of its axis, characterized by the fact that said covering is realized as a lid which covers at least partially the frontal side of the cabinet of the dishwashing machine and which can be open by a movement independent in respect of the door of the dishwashing machine.

Further purposes and advantages of the present invention are clearly shown in the following detailed description and annexed drawings by way

of an explicative and not limiting example, where:

- figure 1 shows a frontal view of the dishwashing machine, according to the invention;
- figure 2 shows a lateral view of the dishwashing machine, according to the invention;
- figure 3 shows the hinging of the lid, according to the invention, both in closed position and in open position.

Figure 1 shows a frontal view of an household appliance, particularly a dishwashing machine, realized according to the invention, where reference number 1 indicates a door for the loading and unloading of the dishes, reference number 2 indicates a basement with feet, of which two are shown and indicated with reference number 3.

To this dishwashing machine comprising all the known elements for its use and complete operation, it has been applied a lid 6, obtained with a material chosen by the household appliance user, by means of two hinges 4 and 5.

In this way it is possible to use lids having color, design, incision and/or shapes similar to the ones of the furniture surrounding the dishwashing machine; for instance wooden or chip wooden lids, laminated lids or lids realized with plastic material are known.

Said lid 6 has the aim, in closed position, to cover the door 1 of the dishwashing machine or a part of it, while in open position it should be at least at 90° in respect of the frontal side 7 of the dishwashing machine; in this way the door 1 of the dishwashing machine can be open without touching the lid 6. It is necessary that the hinges 4 and 5 of the lid 6 and the hinges of the door 1 of the dishwashing machine do not pass through the same axis but, as shown in figure, they must have axis, 8 and 9 respectively, perpendicular between themselves.

The case indicated in figure 1 and 2 shows a door 1 which opens downwardly and a lid 6 which can open toward right; in any case other combinations are possible, which maintain the same advantages of the present invention, such as having an opening toward left or even a lid swinging upwardly, with its hinges placed on the upper part of the frontal side 7.

Figure 2 shows a lateral view of the dishwashing machine according to the invention, with the lid 6 open and the door 1 half open.

Figure 3 shows in detail one of the hinges of the lid 6, according to the invention, in closed position A and in open position B.

In this figure are shown the bearing bracket 10 for the cabinet and the bearing bracket 11 for the lid; said brackets can be screwed on said support

bases to hinge the lid 6 to the dishwashing machine.

The opening movement of the door 6 is allowed by means of the action of three arms 12, 13 and 14, pivotally connected between themselves and with the brackets 10 and 11, and a spring 15 which controls the action of the hinge.

The solution of the described hinge has the great advantage to allow that the lid 6 in closed position is in line with the machine, as the closed hinge, as shown in position A, has a small thickness, which can be completely annulled if the bracket 10 is inserted in a cavity obtained in the cabinet of the dishwashing machine, so that said bracket can disappear in said cavity.

On the lateral side 16 of the two hinges, additional means to allow the fastening can be advantageously provided, such as a perforated plate which can be used to fasten a lateral panel to the cabinet of the dishwashing machine, when it happens that the dishwashing machine is the last element of the furnishing and it has no other adjacent piece of furniture, so that its nude side is in view.

This lateral panel, of course, should be similar in material and aesthetic, to the remaining elements of the furnishing, so to harmonize even the flank of the dishwashing machine to the complete kitchen.

The characteristics of the described system are clearly shown in the description and annexed drawings.

As shown dimensions, shape and position of the lid 6 can be different, depending on the needs of the user to satisfy the various aesthetical, economical, ergonomic and functional exigencies.

Likewise the advantages of the system for attaching a covering subject of the present invention are clear from the detailed description.

Specifically, they are represented by the fact that it is given the possibility to personalize, quickly and with low costs, the household appliance of the house.

It is obvious that many other changes are possible for the man skilled in the art, to the system for attaching a covering described as an example, without departing from the scope of the innovating criteria inherent to the present invention.

By way of example it is suggested the possibility to realize a couple of doors, each covering one half of the machine and which can be used as the doors of a cupboard, instead of a sole lid covering the whole width of the household appliance.

## Claims

1. System for attaching a protective, aesthetical and functional covering to a dishwashing machine,

comprising a cabinet which houses a washing chamber and means to wash the dishes and which comprises a door allowing the access to the washing chamber, which can be open swinging in respect of its axis, characterized by the fact that said covering is realized as a lid (6) which covers at least partially the frontal side (7) of the cabinet of the dishwashing machine and which can be open by a movement independent in respect of the door (1) of the dishwashing machine.

2. System for attaching a protective, aesthetical and functional covering to a dishwashing machine, according to claim 1, characterized by the fact that said lid (6) is hinged on the cabinet of the dishwashing machine by means of hinges (4,5).

3. System for attaching a protective, aesthetical and functional covering to a dishwashing machine, according to claim 2, characterized by the fact that the hinges (4,5) allow a maximum opening of the lid (6) at least of 90° in respect of the frontal side (7) of the household appliance.

4. System for attaching a protective, aesthetical and functional covering to a dishwashing machine, according to claim 3, characterized by the fact that the axis (9,8) which pass through the hinges of the door (1) of the dishwashing machine and of the lid (6) are substantially perpendicular between themselves.

5. System for attaching a protective, aesthetical and functional covering to a dishwashing machine, according to claim 4, characterized by the fact that the hinges (4,5) provide brackets (10,11) for the fastening to the cabinet of the dishwashing machine and to the lid (6), an set of arms (11,12,13) and a spring (15).

6. System for attaching a protective, aesthetical and functional covering to a dishwashing machine, according to claim 2, characterized by the fact that the hinges (4,5) are inserted in cavities obtained on the cabinet of the dishwashing machine to allow an in-line closure of the door (6).

7. System for attaching a protective, aesthetical and functional covering to a dishwashing machine, according to claim 2, characterized by the fact that the hinges (4,5) provide fastening means to sustain a lateral panel which can be fastened on a flank of the dishwashing machine.

8. System for attaching a protective, aesthetical and functional covering to a dishwashing machine, according to claim 3, characterized by the fact that the lid (6) is realized in accordance to the same stylistic line of the surrounding furniture.

9. System for attaching a protective aesthetical and functional covering to a dishwashing machine, according to one or more of the preceding claims, characterized by the fact that the covering is realized by means of two half-doors which can be opened independently in respect of the door (1) of

the dishwashing machine.

10. System for attaching a protective, aesthetical and functional covering to a dishwashing machine as it results from the above description and annexed drawings.

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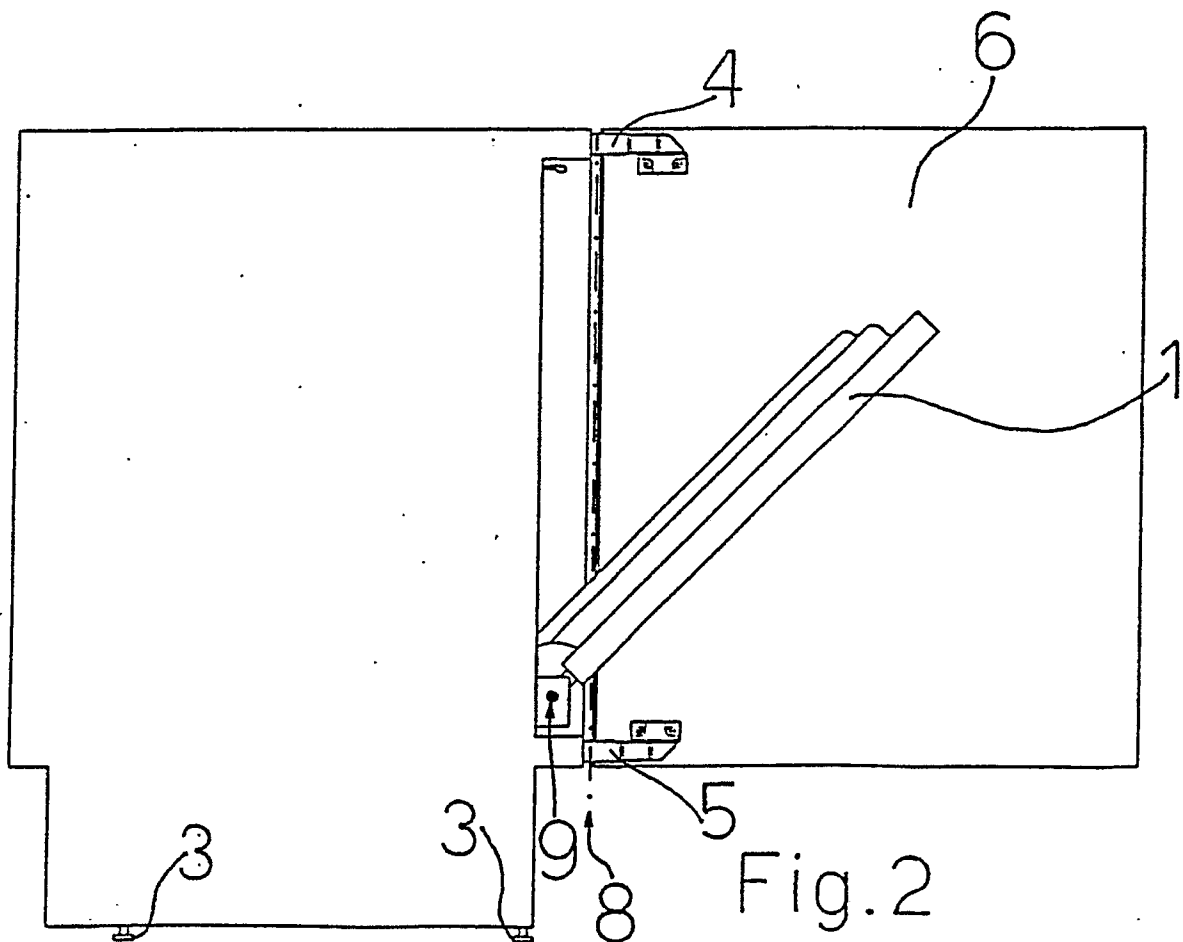
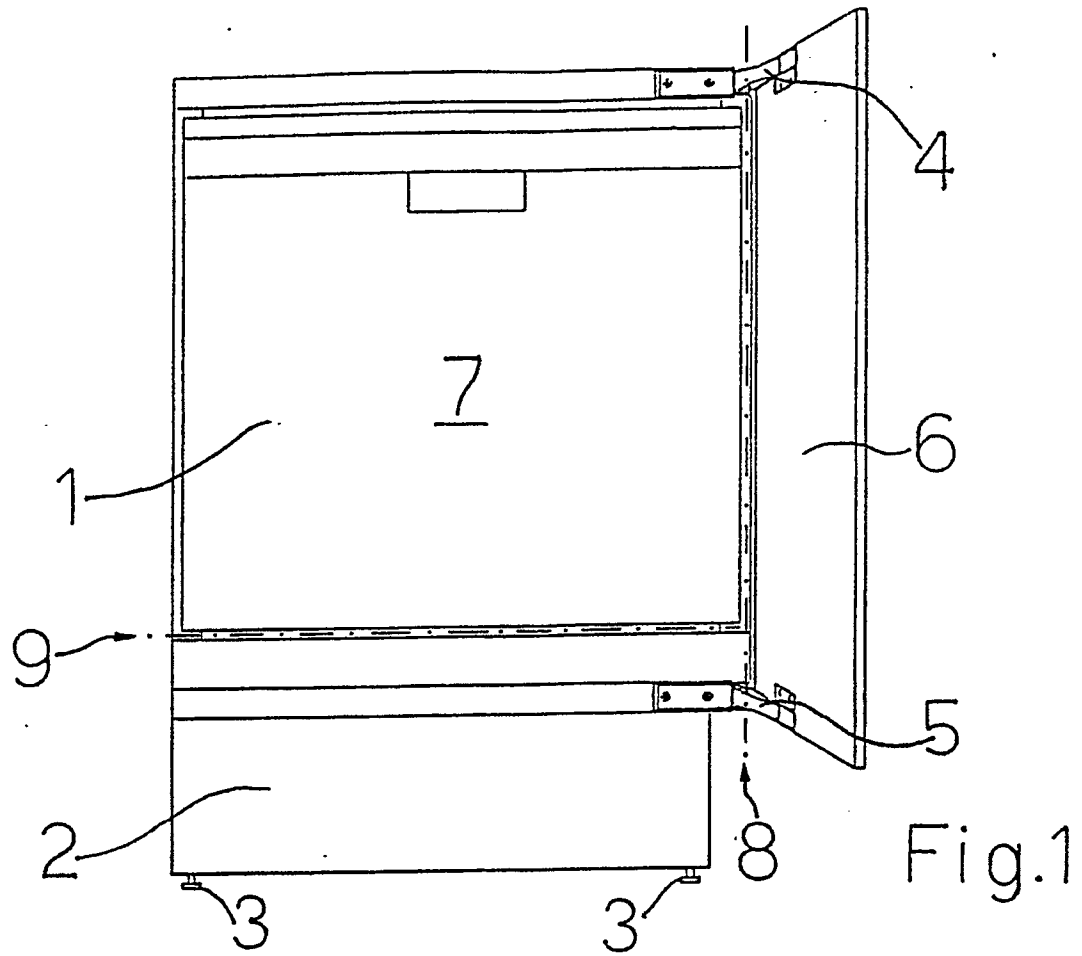
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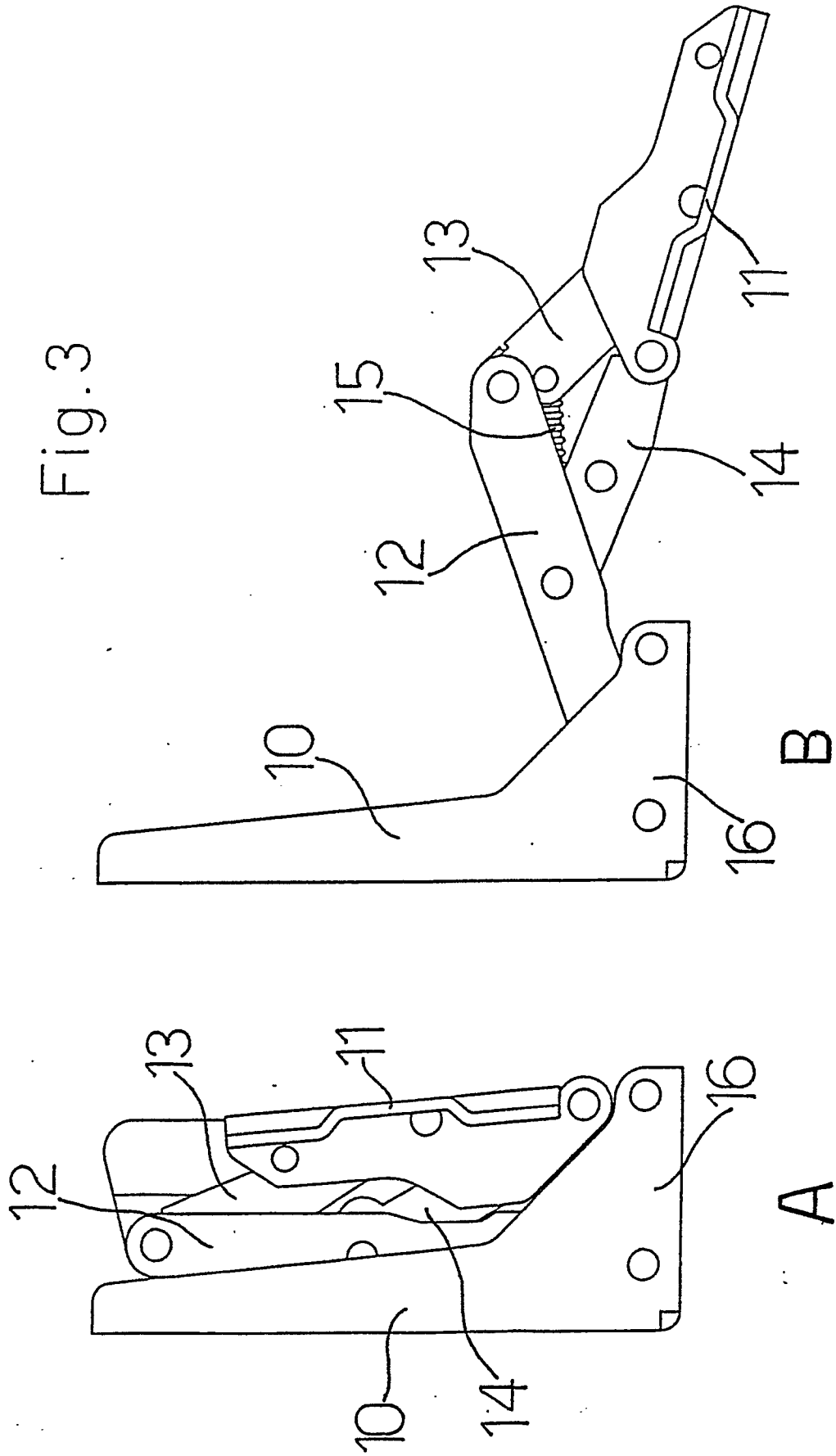
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European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number

EP 90 10 6984

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)
X	DE-A-2346838 (BOECKER-LAMPART GMBH) * the whole document * ---	1-6, 8	A47L15/42 A47B77/08
X	GB-A-2114432 (SMEG) * the whole document * ---	1-3, 5, 6, 8	
X	FR-A-2405669 (LICENTIA) * the whole document * ---	1-3, 8	
X	DE-U-7519943 (OSTERMANN & FLUES KG) * the whole document * -----	1-3, 8	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			A47L F24C D06F A47B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 18 JULY 1990	Examiner SCHARTZ J.
<b>CATEGORY OF CITED DOCUMENTS</b> 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 I : document cited for other reasons ..... & : member of the same patent family, corresponding document			