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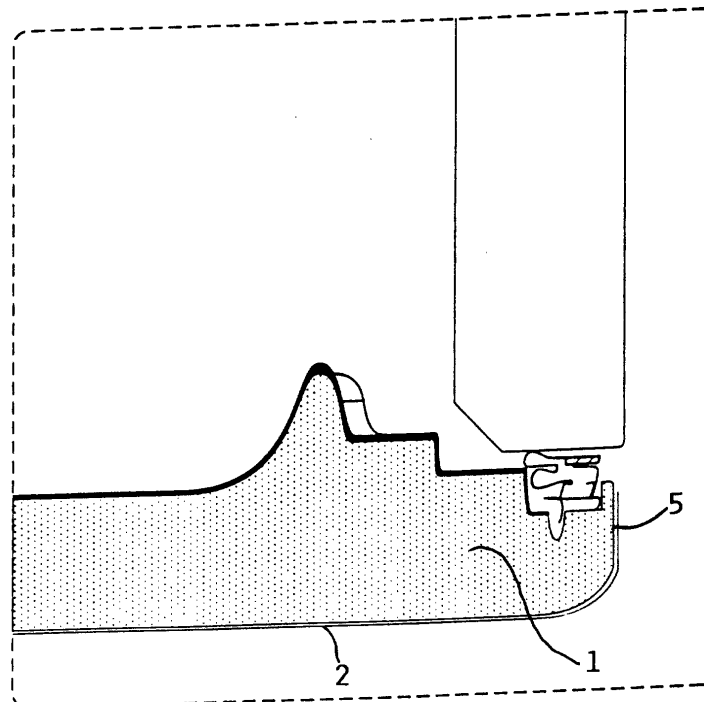
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(54) **Refrigerator appliance door**

(57) Refrigerator/freezer appliance comprising at least an outer casing and at least an inner storage compartment adapted to be closed by a respective door (1) provided with an outer writing surface (2) adapted to act as the support for messages written thereon by means of writing means (7), preferably ink-depositing ones.

Said outer writing surface (2), preferably of polypropylene, is firmly attached to the inner portion of said door (1), which thermally insulates said inner storage compartment from the outside ambient. Said writing surface (2) can also be extended to the side and top edges (4,5,8) of the door (1).



**FIG.3**

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## Description

**[0001]** The present invention refers to an improved type of door in a refrigerator/freezer appliance, typically used in the home.

**[0002]** Appliances of the above cited kind are generally formed by an outer casing which encloses one or more inner compartments that are variously used to store food items at differentiated temperatures.

**[0003]** Access to the interior of said storage compartments occurs from the front side of the outer casing and can be gained through one or more front doors, which are of course adapted to be closed against said outer casing so as to delimit the inner space of said compartments. These doors are usually hinged on an edge of the outer casing and are capable of rotating with respect to the outer casing, in order to open and close it, by means of one or more hinges rotating about a vertical axis.

**[0004]** These appliances are largely known in the art, so that they shall not be described any further.

**[0005]** In the course of the multi-decennial utilization of these appliances in the field, it has been noticed that the outer surface of the front doors is increasingly used as a plane on which to apply such adhesive elements as paper sheets, memo slips of the "post-it" type, stickers, notes, notices, announcements and communications of the most varied kind for use by the members of the family, or anyway by people within the home, since they are supposed to most certainly gain normally access to the refrigerator, so that the application of notices in the form of sheets on the door of this appliance cannot go unnoticed.

**[0006]** It has however been observed that such a manner of using the door of the refrigerator appliance gives rise to a number of drawbacks, such as mainly

- a progressive decay in the quality and appearance of the outer surface of the door,
- the possibility for some of such sheets of paper to come off and fall, so that the messages written thereon may get lost,
- the need for a small supply of adhesive sheets, or similar items, to be held always at hand.

**[0007]** In view of doing away with such drawbacks, the practice is known from the disclosure in US 4,100,684 to provide particular structures adapted to be removably applied on to the outer surface of metal planes, on which there can be then arranged writing boards for erasable messages to be written or marked thereon in any of the currently available, largely known manners.

**[0008]** However, such structures are supplementary elements that must therefore be added to the door of a refrigerator appliance, generate additional costs, either require the outer surface of the door to be ferromagnetic,

if simple magnets are to be used as fixing elements, or require the door itself to be suitably worked, drilled, and the like, in view of applying said structure thereon, and this of course gives rise to problems of additional work to be carried out, and resulting costs.

**[0009]** It would therefore be desirable, and is actually a purpose of the present invention, to provide a refrigerator-freezer appliance provided with an outer door on which it proves possible for erasable messages to be left without any risk for the same door to be damaged, and which is further capable of being easily manufactured, is economical, and is ultimately capable of doing away with the afore mentioned drawbacks.

**[0010]** According to the present invention, this aim is reached in a particular type of door having the characteristics as recited in the appended claims, which is described below by way of non-limiting example with reference to the accompanying drawings, in which:

- Figure 1 is a schematical perspective view of a refrigerator appliance according to the present invention;
- Figure 2 is a cross-sectional view of said appliance, according to the section plane A - A in Figure 1;
- Figure 3 is an enlarged view of a detail of Figure 2.

**[0011]** With reference to these Figures, a refrigerator appliance according to the present invention comprises at least a front door 1.

**[0012]** Integrated with said door is a writing surface 2, which is arranged externally on the same door in such a manner as to preferably enable said surface to fully or almost fully cover the outer face of the door.

**[0013]** Said writing surface 2 is made of a plastic material adapted to support messages in the form of written words, drawings or sketches of any kind whatsoever 3, as made with the use of normal, but appropriate writing means 7, such as felt pens, crayons, and the like, preferably capable of being erased and of a largely known type readily and universally available on the market.

**[0014]** The surface 2 may be a rigid or semi-rigid surface that is distinct from the door of the storage compartment and is adapted to be applied on to said door with generally known fastening means.

**[0015]** However, it may be considered as advantageous if said writing surface 2 is essentially constituted by a flexible layer of plastic material, in particular polypropylene, which is applied on to the outer face of the door and, in an advantageous manner, also to the side edges 4, 5 thereof, as illustrated in particular in Figures 2 and 3, as well as possibly to the upper edge 8.

**[0016]** In particular, said flexible layer may be formed directly by depositing in a continuous or semi-continuous manner a continuous sheet or layer of appropriate plastic laminate directly onto the sheet-metal strip that is subsequently cut to length for making the outer wall

of the door; or appropriate sheets of laminated plastic material may be co-extruded to form a laminate in which the outer sheet constitutes the writing surface.

[0017] The preceding processing methods give an additional advantage in that the layer of plastic material is automatically deposited also on the side edges of the door.

[0018] As far as the way is concerned in which said writing surface is coupled to the door, it may be applied thereon with the use of known, easy-to-use means, eg. by hot pressing, or by means of vacuum, or in a more traditional manner with the use of a very thin layer of adhesive.

[0019] In an advantageous manner, in view of an improved aesthetical appearance of the refrigerator appliance, said writing surface may be coloured in the same colour as the remaining part of the appliance casing, so as to avoid creating colour effects that may prove excessively contrasting or ill-matching or even totally out-of-match both with each other and the other kitchen cabinets.

7. Refrigerator/freezer appliance according to any of the preceding claims, **characterized in that** said door has a sheet of laminated plastics on the outside, and that said outer surface (2), preferably of polypropylene, is co-extruded on said sheet.

## Claims

1. Refrigerator/freezer appliance comprising at least an outer casing and at least an inner storage compartment adapted to be closed by a respective door (1), **characterized in that** it is provided with an outer writing surface (2) adapted to act as the support for messages written thereon with the use of writing means (7), preferably ink-depositing ones.
2. Refrigerator/freezer appliance according to claim 1, **characterized in that** said outer writing surface (2) is firmly attached to the inner portion of said door, which thermally insulates said inner storage compartment with respect to the outside ambient.
3. Refrigerator/freezer appliance according to claim 1 or 2, **characterized in that** said outer writing surface (2) is substantially made of polypropylene.
4. Refrigerator/freezer appliance according to any of the preceding claims, **characterized in that** said outer writing surface (2) is coloured uniformly with the colour of the outer casing of the appliance.
5. Refrigerator/freezer appliance according to any of the preceding claims, **characterized in that** said outer writing surface (2) also extends over to the side edges (4, 5) of said door.
6. Refrigerator/freezer appliance according to claim 5, **characterized in that** said outer writing surface (2) also extends to cover the upper edge (8) of said door.

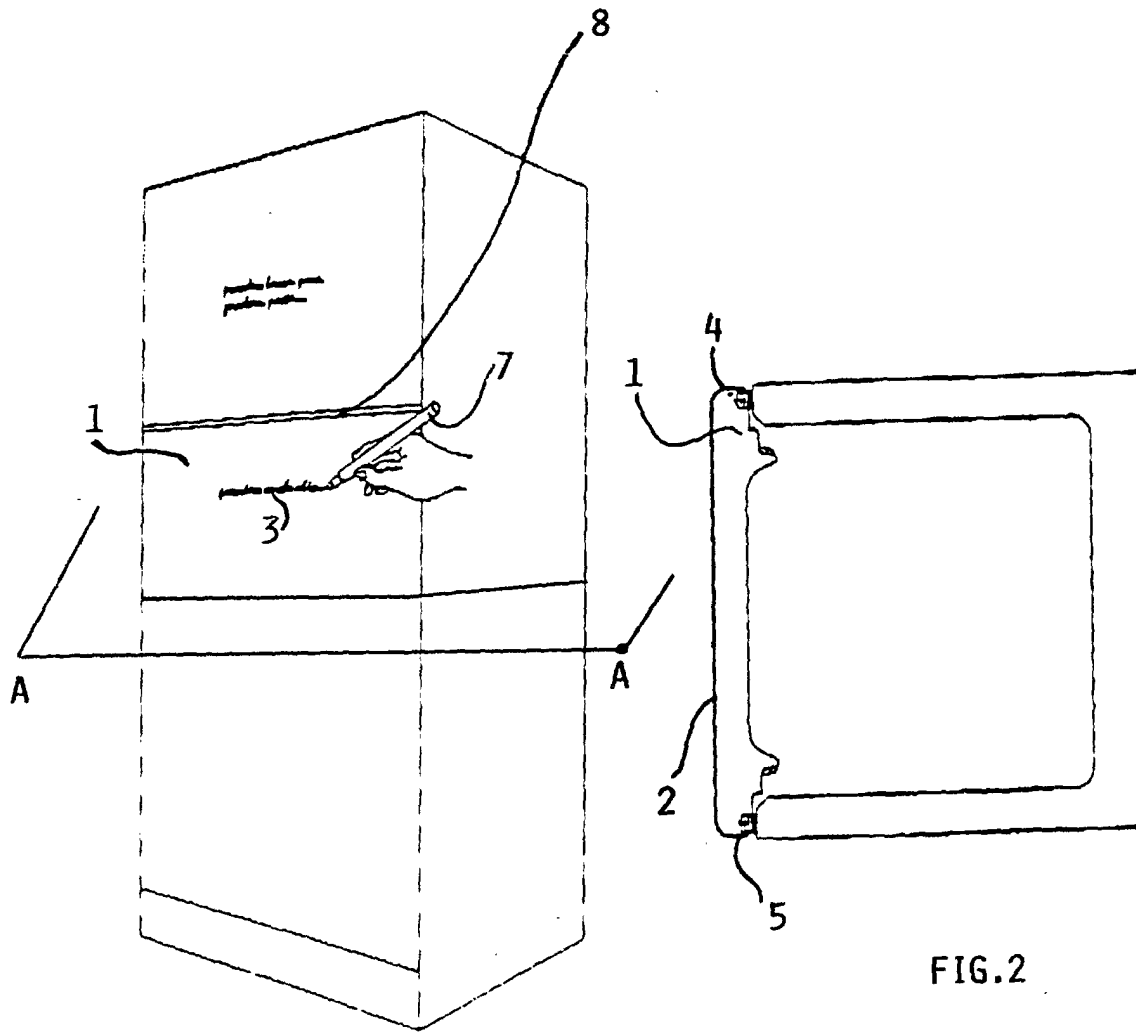


FIG.1

FIG.2

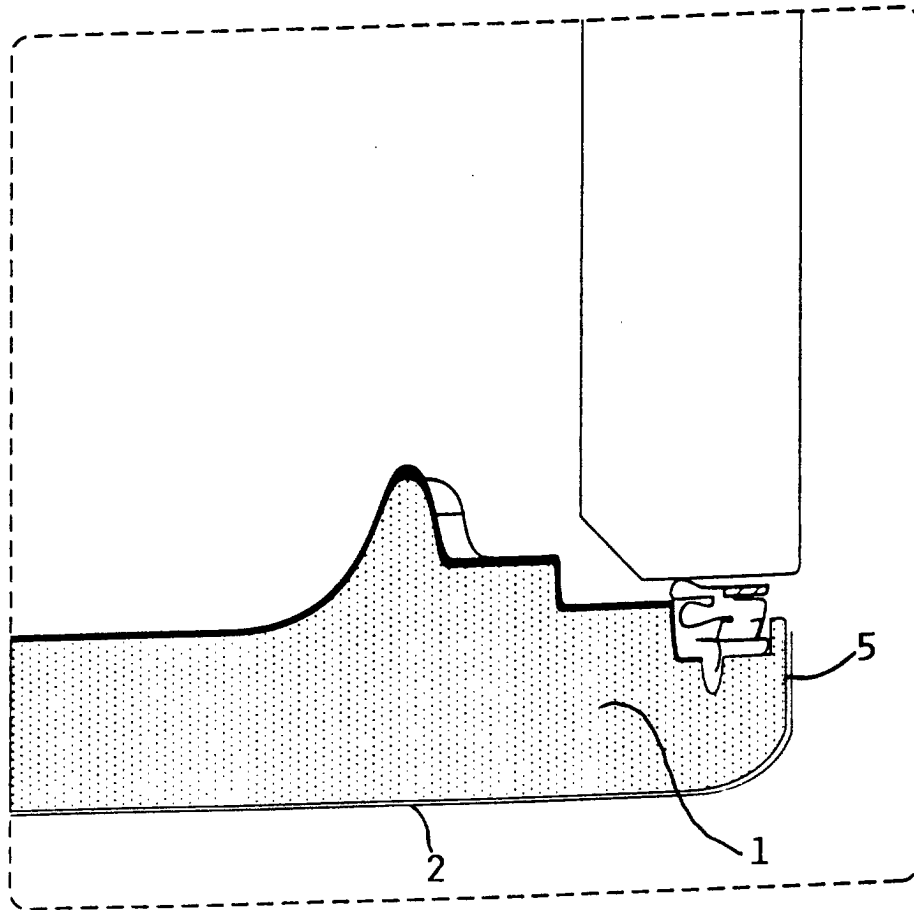


FIG.3



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# EUROPEAN SEARCH REPORT

Application Number  
EP 01 11 8957

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                           |                                  |                                              |
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EPO FORM 1503 03/02 (Pb/Cv01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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