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(54) Refrigerator door with shelves on its inside

(57) A refrigerator door (12) has on its inside (10) two vertical ridges (20), between which a shelf (28) is arranged, which shelf at each of its ends is provided with a tongue-shaped prolongation (42), which extends

around the protruding edge (22) of the respective ridge and at its tip on its inside has a projective part (44), by which the shelf (28) is hooked in a corresponding cavity (26) arranged on the outside of the respective ridge (20).

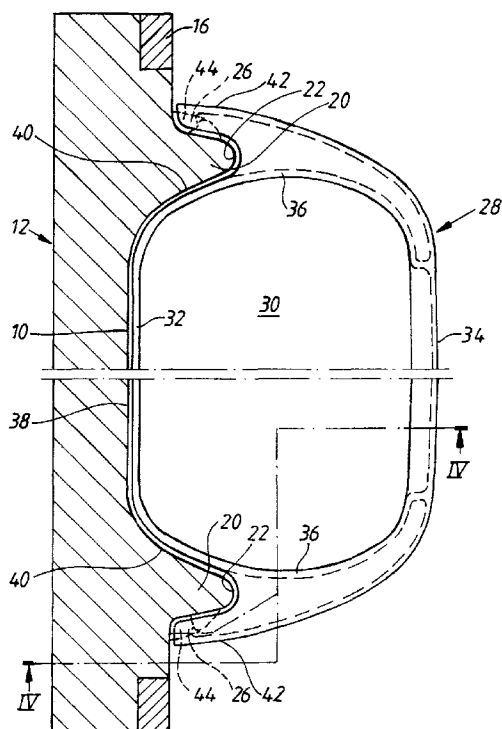


FIG. 3

Description

The invention refers to a refrigerator door, which on its inside has two vertical ridges arranged in parallel with and at a distance from each other, at least one shelf being arranged between the ridges, which shelf at each of its ends is provided with a projective part, which is hooked in a corresponding cavity in the respective ridge.

At such a door the cavities use to be arranged on the ridges on their sides which face each other. These cavities, which are exposed to the articles on the shelf, are easily made dirty by the articles.

The object of the invention is to improve the known door so that its surface which is exposed to the articles can be made even and smooth, so that it easily can be cleaned.

This object is reached by the door according to the invention thereby that the cavities are arranged on the ridges on their sides which are turned away from each other and that the projective parts are arranged at the tip of tongue-shaped prolongations of the ends of the shelf, which prolongations extend around the protruding edge of the respective ridge.

An embodiment of the invention is described below in connexion with the enclosed drawings, in which Fig. 1 shows the inside of a refrigerator door with a shelf arranged on the door, Fig. 2 shows a view of the door according to the marking II in fig. 1, Fig. 3 shows an enlarged view of the shelf according to the marking III-III in fig. 2, and Fig. 4 shows a sectional view according to the marking IV-IV in fig. 3.

In fig. 1 is shown the inside 10 of a door 12 of a refrigerator cabinet 14. A magnetic strip 16 extends around the periphery of the door, which strip seals against a surface 18 of the cabinet 14, when the door is closed. A ridge 20 is shaped in the inside 10, which ridge extends with an edge 22 around the periphery of the door inside the magnetic strip 16. On the outside of the vertical parts of the ridge 20 hook-shaped convexities 24 are shaped in one piece with the ridge, a cavity 26 being arranged in each convexity 24.

Shelves 28 are arranged between the vertical parts of the ridge 20. The respective shelf 28 has the shape of an elongated tray with a bottom 30, a rear wall 32 and a front wall 34, which walls are united by arched end walls 36 at the respective ends of the shelf. The part of the inside 10 of the door which is located inside the ridge 20 has a smooth and substantially plane surface 38, which joins the edge 22 of the ridge with an arched and smooth surface 40. The walls 32 and 36 of the shelf join the surfaces 38 and 40 of the door, so that they substantially bear on each other.

The shelf is at each of its ends provided with a tongue-shaped prolongation 42, which extends around the edge 22 of the ridge and at its tip on the inside is provided with a projective part 44, by which the shelf is hooked in the cavity 26, the lower end 50 of the projective part 44 resting against the bottom 52 of the cavity

26, which bottom takes up vertical forces from the shelf. When the shelf is loaded by vertical forces the shelf will also be exposed to horizontal reaction forces 46, see fig. 4. The shelf is shaped so that the lower force 46 is taken up by the lower edge of the wall 32. The upper force 46 is taken up by the projective part 44. In order to minimize the force 46 the projective part 44 has been given a high position, at the level of the upper edge 48 of the shelf.

The shelf with the tongue-shaped prolongations is suitably made of plastic in one piece.

Claims

1. Refrigerator door (12), which on its inside (10) has two vertical ridges (20) arranged in parallel with and at a distance from each other, at least one shelf (28) being arranged between the ridges, which shelf at each of its ends is provided with a projective part (44), which is hooked in a corresponding cavity (26) in the respective ridge, **characterized** in that the cavities (26) are arranged on the ridges (20) on their sides which are turned away from each other and that the projective parts (44) are arranged at the tip of tongue-shaped prolongations (42) of the ends of the shelf, which prolongations (42) extend around the protruding edge (22) of the respective ridge.
2. Door according to claim 1, **characterized** in that the cavity (26) is shaped in one piece with the ridge (20).
3. Door according to claim 1 or 2, **characterized** in that the shelf with the tongue-shaped prolongations (42) and the projective parts (44) are made in one piece.

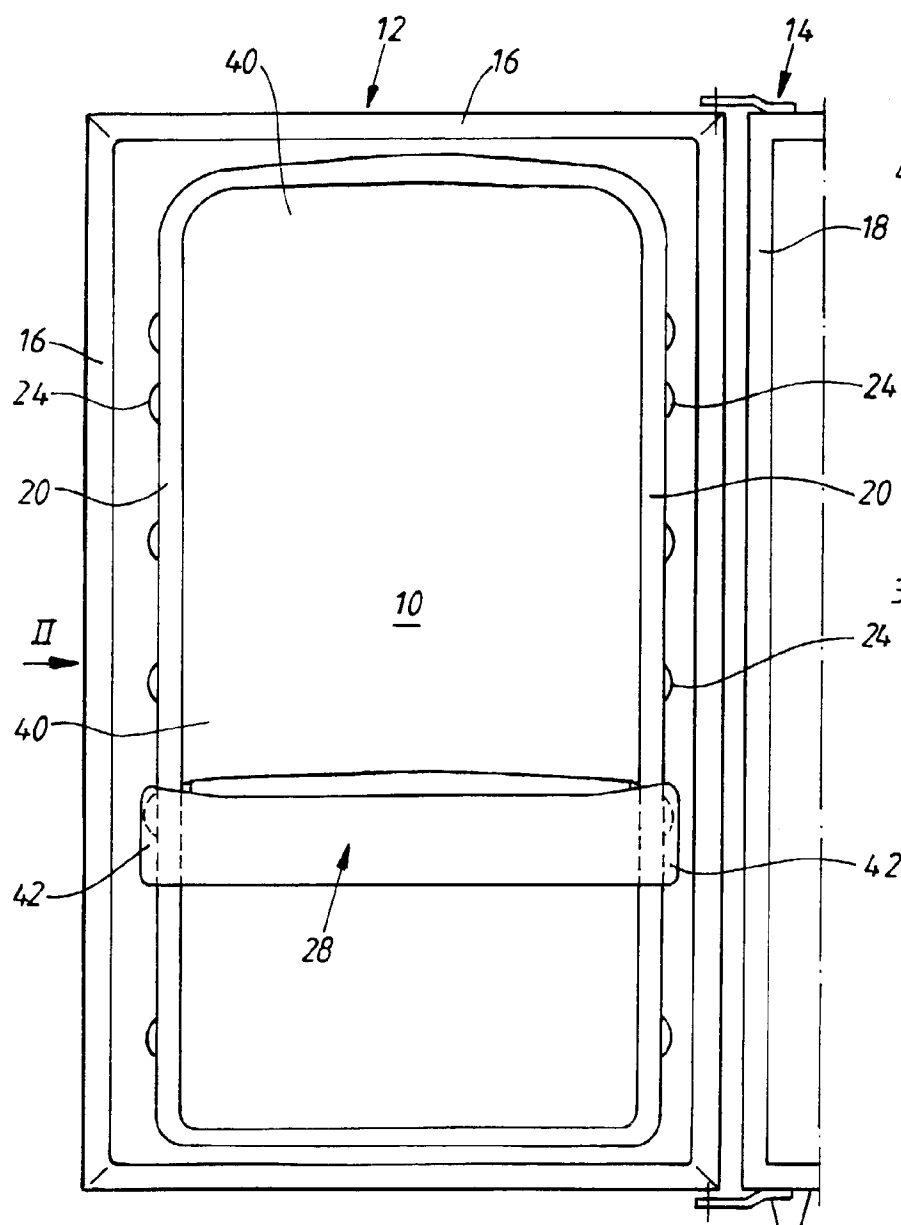


FIG.1

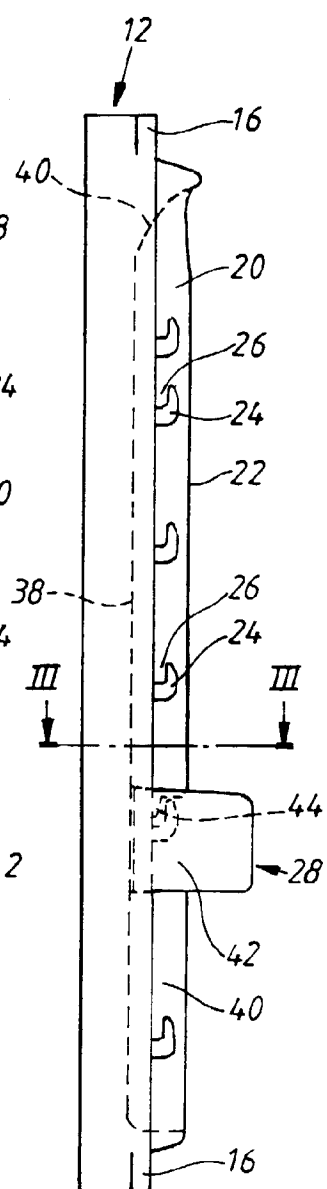


FIG. 2

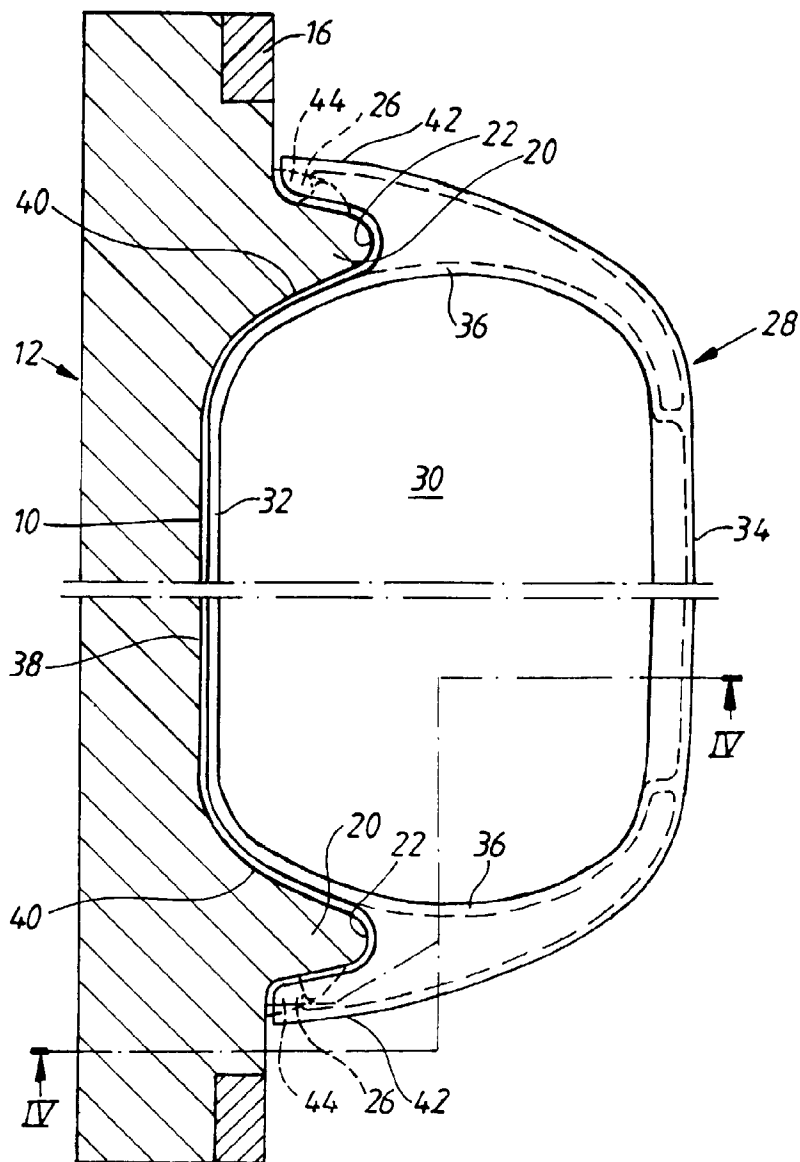
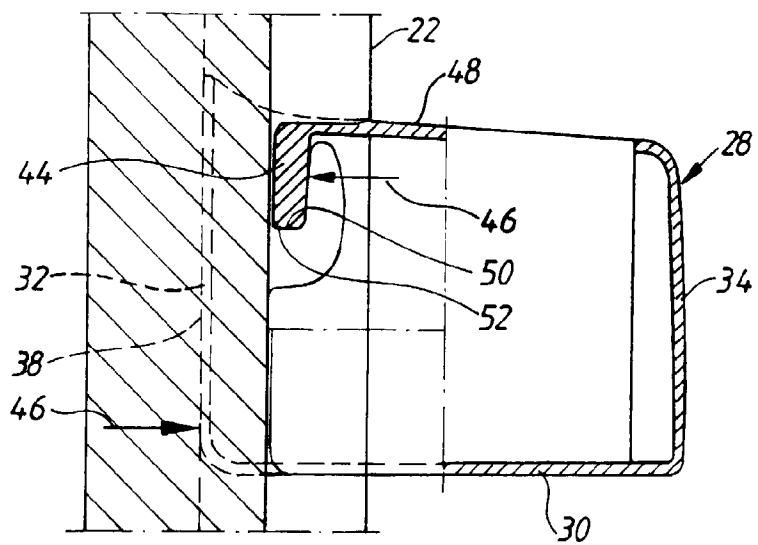


FIG. 3

FIG. 4





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EUROPEAN SEARCH REPORT

Application Number
EP 97 85 0157

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.6)
A	US 5 322 366 A (REVLETT JOHN R ET AL) * abstract; figures 1-10 * ---	1-3	F25D23/02 F25D23/08 A47F3/04
A	US 4 908 544 A (LAU ROBERT G) * abstract; figures 4-6 * ---	1	
A	US 3 647 075 A (AUE JOHN R) * abstract; figures 1-6 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			F25D A47F
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 20 March 1998	Examiner Filtri, G
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