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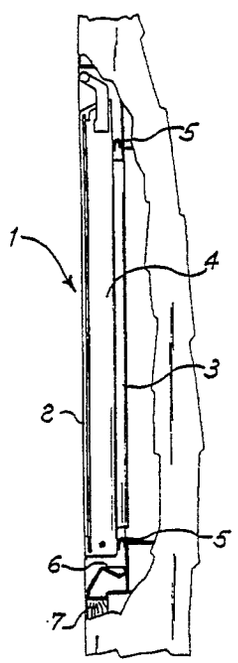
(54) Condensate draining channel tray for cooking oven doors.

(57) Underneath the lower edge of a domestic cooking door (1) there is provided a condensed water draining channel tray (6). Preferably said channel tray (6) is spring-like mounted throughout its length on an integrally formed support (9) being inclined and joined at the bottom to a portion (10) having the same length, which is fixed to the oven baseboard (7).

Fig.1



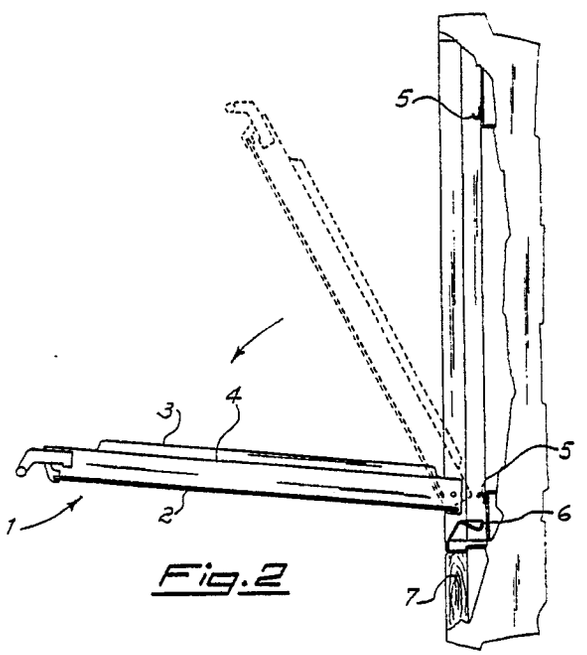


Fig.2

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CONDENSATE DRAINING CHANNEL TRAY FOR COOKING OVEN DOOR

The present invention relates to a channel tray for draining the condensate of cooking oven doors.

It is known that in the domestic cooking ovens, when the foods to be cooked have a particularly high content of water, the vapour generated by the heat action tends to condense on the less hot areas of the walls and particularly on the glass door, which has a reduced insulation in order to visually check the progress degree of the food cooking.

When the condensed vapour reaches a sufficient consistency it tends to gather and form drops which slide along the inner wall of the oven door and collect at the bottom of the door itself in the area of the sealing gaskets. Upon opening the door, the condensate collected at the bottom, being no longer kept back by the gaskets, drips onto the baseboard and may even getout at the front side thus staining the baseboard itself and also the floor.

The present invention has the object to avoid the above-mentioned inconveniences by providing a channel tray for collecting and containing the condensate drops which drain to the lower portion of the door when this is opened.

The present invention will be now illustrated more in detail with reference to the annexed drawings, in which:

FIGURE 1 shows, in a partial cross-section view, the front portion of a cooking oven comprising a closed door;

FIGURE 2 shows the same view of Fig. 1, but with the door at open position; and

FIGURE 3 shows an enlarged detail of the lower portion of Fig. 2 to enphasize the representation of the channel tray according to the invention.

As shown in the drawing, the front portion of the cooking oven for domestic use comprises a door 1 formed of two glass surfaces 2, 3 sealingly enclosing an interspace 4 having the function of preventing the front glass pane 2 from an excessive heating. When door 1 is at a closed position, as shown in Fig. 1, it presses again resilient gaskets 5 having the aim of avoiding heat losses to the outside.

When cooking, the water vapour generated by the water in the foods, once the dew point has been passed, condensates on the inner wall 3 of the door 1 in the area between the two gaskets 5. On opening the door 1, the condensate drained on the lower gasket 5 has its way clear and drips downward until being collected by a channel tray 6 positioned horizontally near the baseboard 7, along the whole width of the oven 1.

The collecting channel tray 6 is defined at its both ends by two elevations 8 having the purpose of preventing the condensate from flowing out at the sides and is formed of a metal sheet section having a substantially C-shaped cross-section, wherein the actual channel trai 6, corresponding to the upper leg of the C, is resiliently supported by a portion 9 sloping down at an angle, being connected to the lower leg 10 of the C-shape, which is fixed in any known manner to the baseboard 7.

The condensed water drained in the channel tray 6 after each cooking cycle may be left there because the heat produced during the subsequent cooking cycle will cause it to evaporate in the surrounding air or, as an alternative, the condensed water will be removed manually by means of a suitable absorbing body.

Claims

1. A cooking oven door for domestic use, characterized by the fact that under the lower edge of said door (1) a condensate draining channel tray (6) is positioned which extends itself throughout the width of said door (1).

2. A channel tray for collecting the condensate formed on the inner wall of a door (1) of a domestic cooking oven according to claim 1, characterized by the fact of being resiliently supported along its whole length by an integrally formed sloping suport (9) which is connected at the bottom to a portion (10) of the same length which is fixed to the baseboard (7) of said oven.

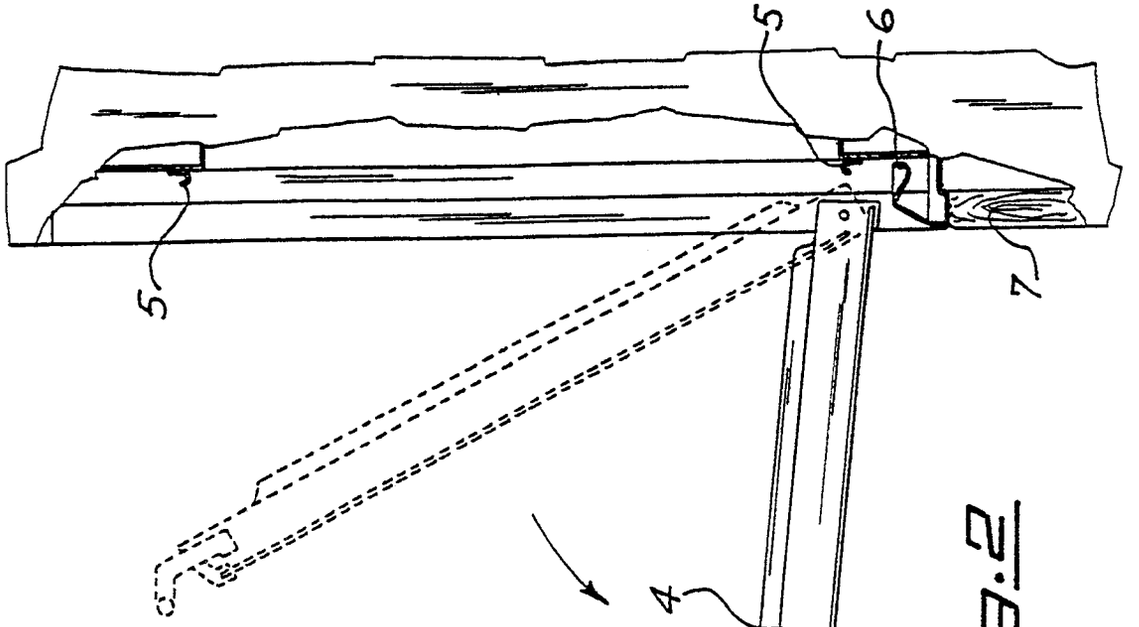

Fig.2

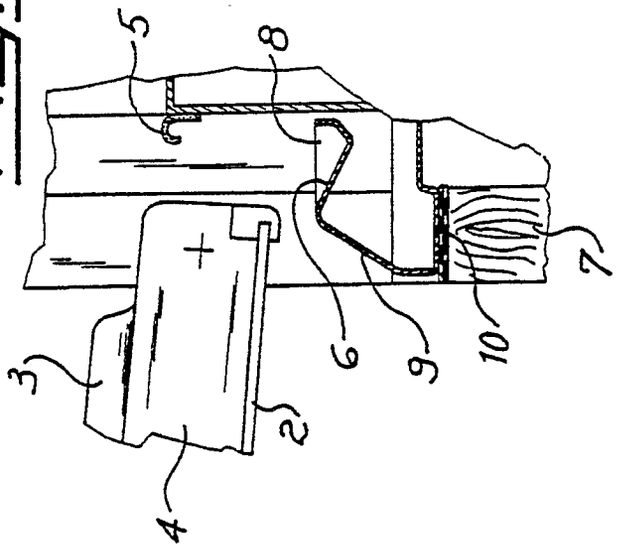

Fig.3

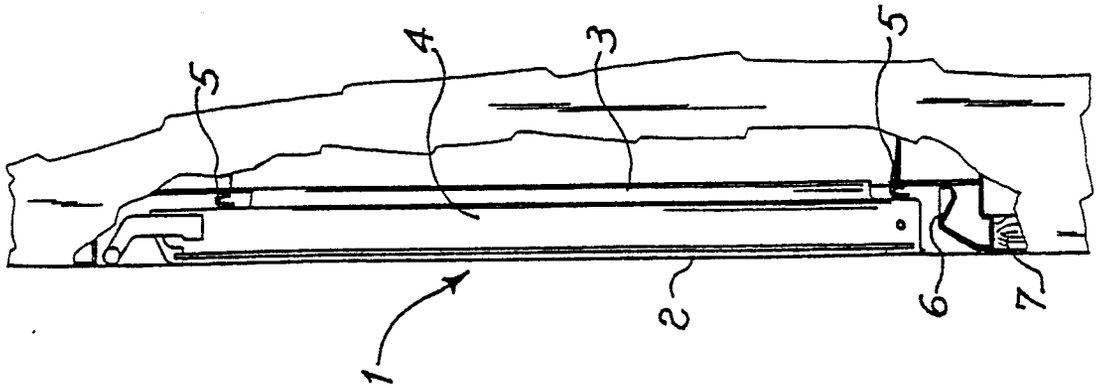

Fig.1

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EUROPEAN SEARCH REPORT

Application Number

EP 90 83 0323

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-1579749 (SIEMENS-ELECTROGERÄTE) * claims 1-3; figures * ---	1	F24C15/14
X	DE-A-2410645 (BONO APPARATE) * claims 1, 2; figures * ---	1	
A	PATENT ABSTRACTS OF JAPAN vol. 4, no. 154 (M-38)(636) 28 October 1980, & JP-A-55 105123 (TOKYO SHIBAURU) 12 August 1980, * the whole document * -----	1	

TECHNICAL FIELDS SEARCHED (Int. Cl.5)

F24C
E06B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	15 OCTOBER 1990	VANHEUSDEN J.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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