Case Number: T 0068/14 - 3.2.03
Application Number: 07124130.1
Publication Number: 2075509
IPC: F24C15/04
Language of the proceedings: EN

Title of invention: Oven door

Patent Proprietor: Vestel Beyaz Esya Sanayi ve Ticaret A.S.

Opponent: Arçelik Anonim Sirketi

Headword:

Relevant legal provisions: EPC Art. 100(a), 100(b), 56, 83

Keyword:
Grounds for opposition - insufficiency of disclosure (no) Inventive step - (yes)
Decisions cited:

Catchword:
Case Number: T 0068/14 – 3.2.03

DECISION
of Technical Board of Appeal 3.2.03
of 17 August 2017

Appellant: Arçelik Anonim Sirketi
(OPponent)
E5 Ankara Asfalti Uzeri
Tuzla
34950 Istanbul (TR)

Representative: Louis Pöhlau Lohrentz
Patentanwälte
Postfach 30 55
90014 Nürnberg (DE)

Respondent: Vestel Beyaz Esya Sanayi ve Ticaret A.S.
(Patent Proprietor)
Organize Sanayi Bölgesi
45030 Manisa (TR)

Representative: Cayli, Hülya
Paragon Consultancy Incorporated
Koza Sokak No: 63/2
GOP 06540 Ankara (TR)

Decision under appeal: Decision of the Opposition Division of the European Patent Office posted on 11 November 2013 rejecting the opposition filed against European patent No. 2075509 pursuant to Article 101(2) EPC.

Composition of the Board:
Chairman: G. Ashley
Members: C. Donnelly
M.-B. Tardo-Dino
Summary of Facts and Submissions

I. The appeal lies from the decision of the opposition division rejecting the opposition against European Patent No. EP-B-2 075 509.

II. The opponent (hereinafter: the "appellant") filed an appeal against this decision in due form and time.

III. The appellant relied on the following documents to support its case:

E1: EP-1 079 180 A2;
E7: US-6 904 904 B2;
E8: DE-26 54 017 A1;
E10:EP-0 010 829 A1;

IV. With its reply to grounds of appeal of 25 July 2014, the patent proprietor (hereinafter: the "respondent") submitted a first auxiliary request.

V. The Board set out its provisional opinion in a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal (RPBA). In particular, it informed the parties that it considered that the requirements of Article 83 EPC were met.

VI. In its reply of 17 July 2017, the respondent filed a new first auxiliary request.

VII. Oral proceedings were held on 17 August 2017. At the end of the debate the parties confirmed the following requests:
The appellant (opponent) requested that the decision under appeal be set aside and that the European patent No. 2075509 be revoked. The respondent (patent proprietor) requested that the appeal be dismissed, or that the patent be maintained on the basis of auxiliary request 1 filed with the letter dated 17 July 2017 or auxiliary request filed 2 corresponding to auxiliary request 1 filed with the reply to the statement of grounds with letter dated 25 July 2014.

VIII. The following feature analysis of claim 1 as granted was referred to by the parties:

F1 An oven door (1)
F2 a front panel (2) provided with an outer glass;
F3 symmetrical side profiles (3, 3') and
F4 an upper profile (4) provided behind said panel (2) and used for glass assembly;
F5 an inner glass (5) attached to said profiles (3, 3', 4),
F6 at least one middle glass (6) provided between said outer glass and inner glass (5);
F7 and at least one spring (7) positioning said glasses (5, 6),
F8 one "U" shaped connection tab (32) is provided at the lower part of each of said profiles (3, 3') where the lower edge (52) of the inner glass (5) is introduced;
F9 the upper part (52') of the inner glass (5) remains beneath one surface (40) of the upper profile (4) provided on the upper part of said side profiles (3, 3')
F10 the at least one spring (7) is positioned so as to exert downward force on the upper edge (52') of the inner glass (5);
F11 the inner glass (5) is displaceable once it is pushed toward the upper profile (4) until it becomes free from the lower connection tabs (32),

and said oven door is characterized in that

F12 settling surfaces (31) with a stepwise formation are provided on both mutual edges of both side profiles (3, 3') where two mutual side edges (51, 51') of the inner glass (5) are settled;
F13 said at least one spring (7) has a plate-shaped body (71)
F14 which has a plurality of segments (72,73), each such segment (72,73) clamping one glass (5,6).

IX. The arguments of the appellant relevant to the decision can be summarised as follows:

(a) Article 100(b), Article 83 EPC, Insufficiency of disclosure.

It is essential that the plate-shaped body (71) is curvature bent and made out of sheet metal. Since these features are not specified, various alternatives fall within the scope of the claim. However, no alternatives are described in the specification and it is not unambiguously derivable from the patent how such alternatives could be realised. In its decision at point 2.1.1.3 the opposition division exaggerates the abilities of the skilled person. Should the board decide that the requirements of Article 83 EPC are met then it should also apply the same criteria when assessing inventive step.
(b) Article 100(a) EPC, Article 56 EPC, Inventive step

The subject-matter of claim 1 does not involve an inventive step in view of E1 in combination with E8 or E10 and E7 or E11.

Although in the written procedure, it had been argued that E1 discloses features F1 to F11, it became apparent upon further analysis before the oral proceedings that in fact E1 also discloses feature F12. The "Halteelement" 7 is an integral part of the side profile (see paragraph [0032] of the description). Further, as can be seen in figures 1 to 4 and explained at paragraph [0038] of the description, it comprises a sideways movement limiting part or step 7 ("Begrenzungsteil"). Since this stepwise formation is provided on both mutual edges of the side profiles, settling surfaces where two mutual side edges of the inner glass are settled according to F12 are disclosed. Alternatively it can be argued that the surface 174 ("Boden") provides the "settling" surface (see column 9, lines 40 to 41).

Therefore, the only differences between the subject-matter of claim 1 and the oven door known from E1 are features F13 and F14 relating to the spring.

It should be noted that the feature F14 stating that "a plurality of segments, each such segment clamping one glass" does not necessarily imply that each segment is clamping a different glass. A segment may clamp more than one glass.

E8 and E10 both disclose springs according to features F13 and F14 for holding oven door glass panes. When seeking an alternative spring, the skilled person would see it as obvious to replace the spring of the first
embodiment of E1 by simpler springs with a plate-shaped body as disclosed in these documents.

Also the embodiment shown in figure 10 of E1 which has separate spring elements (101, 201, 301) provides the same advantage as that achieved by a spring with a plate shaped body which has a plurality of segments.

Should the board decide that E1 does not disclose feature F12, then when assessing inventive step this feature should in any case be considered separately from F13 and F14 since these features are not functionally interdependent and there is no synergistic effect between them. Thus, separate partial problems can be identified for feature F12 and features F13 and F14.

The provision of features F13 and F14 does not involve an inventive step for the reasons already given. The provision of feature F12 would also be obvious for the skilled person faced with the problem of facilitating the fitting of the glass panes since E7 and E11 both disclose such settling surfaces.

X. The arguments of the respondent relevant to the decision can be summarised as follows:

(a) Article 100(b) EPC, Article 83 EPC, Insufficiency of disclosure

The spring is defined by the following features:
F7 - "at least one spring (7) positioning said glasses"
F10 - "the at least one spring (7) is positioned so as to exert downward force on the upper edge (52') of the inner glass (5)"
F13-F14 - "said at least one spring (7) has a plate-shaped body (71) which has a plurality of segments (72, 73), each such segment (72, 73) clamping one glass (5, 6)"

In other words, the spring of the patent has a plate shaped body and exerts a downward force on the upper edge on the inner glass. These requirements are not only fulfilled by a curvature bent shaped body, but also by straight plate shaped body diagonally attached to side profile or "Z" shaped body. The skilled person is well aware of these possibilities. Therefore the feature of a "curvature-bent plate-shaped body" is not essential and the invention is sufficiently disclosed.

(b) Article 100(a) EPC, Article 56 EPC, Inventive step

E1 does not disclose feature F12 since the "Halteelement" 7 is not part of the side profile. The "Halteelement" 7 in fact corresponds to feature F8.

E1 does not disclose features F13 and F14. Furthermore, the feature of F14 wherein "each segment (72,73) clamping one glass (5,6)" clearly discloses that one segment is clamping one glass

E8 and E10 also do not disclose features F13 and F14 since part 180 of figure 10 in E8 does not have different segments for clamping different glasses. In the device of E10 the "clip" does not exert a force on the glass. Similarly E7 and E11 fail to disclose feature F12. The oven door of E11 relies on a pyrolytic cleaning method in which removal of the glass panes is not necessary. In particular, the device disclosed in E11 does not appear to have any retaining springs.
Features F12 to F14 are directly related to each other since to remove the inner glass the user must push the inner glass towards the springs (features F13 and F14). If there is no setting surface with a stepwise formation (feature F12) the user would have to apply a force at the middle or at two portions of the inner glass since otherwise the spring force cannot be freed from one of the connection tabs. With the arrangement of the patent when a user applies a force from any point to the inner glass it moves in a straight line due to the presence of the settling surfaces. Features F13 and F14 create a problem of unparalleled movement of the side edges of the inner glass during removal of the glass which is solved by feature F12 which forces the side edges on the inner glass to move parallel to each other.

**Reasons for the Decision**

1. *Article 100(b) EPC, Article 83 EPC, Insufficiency of disclosure*

As explained by the opposition division in paragraphs 2.1.1.1 to 2.1.1.3 of the decision under appeal, the patent specifies in detail at least one way of carrying out the invention and the skilled person is capable of considering differing alternatives both for the spring design and its position. The appellant's objections relate in fact to an alleged lack of clarity which is not a ground for opposition.

Consequently, the board considers that the patent discloses the invention in a manner sufficiently clear
and complete for it to be carried out by the skilled person.

2. Article 56 EPC, Inventive step

2.1 It is common ground between the parties that E1, in particular the first embodiment shown in figures 1 to 9, is the most relevant prior art and represents the promising starting point.

2.2 As regards feature F13, the Board agrees with the opposition division (see page 10, paragraph 2) that this is to be interpreted as a body made out of plate shaped material. Therefore, the board does not accept the appellant's submission that the "elastisches Element" 13 which acts as the spring element in the first embodiment of E1 is a plate-shaped body since it is clearly not made out of a plate material (in particular see figure 9 of E1).

2.3 Regarding feature F12, the board does not accept the appellant's argument made during the oral proceedings that the side portions 73 of the of the "Halteelement" 7 form settling surfaces on both mutual edges of both side profiles, since the "Halteelement" 7 is not part of the side profile. As the respondent has pointed out, "Halteelement" 7 is actually the "U" shaped connection tab provided at the lower part of each of said profiles where the lower edge of the inner glass is introduced as specified in feature F8. For this reason, the surface 174 also does not fall within the specification of F12.

2.4 Further, the board does not accept that the side edges of the inner glass can only refer to the thin section edge of the pane, and therefore only the side portions
73 of the "Halteelement" can provide a settling surface. The "edge" of the pane would be understood by the skilled person with a mind seeking to understand the invention, in a more general sense as meaning the whole area bordering the thin edge cross-section since this fits with the overall wording of the claim.

2.5 The board understands a "settling surface" to be one upon which the pane can be placed and and remain under its own weight. This cannot happen with the side portions 73 since the weight of the panes will normally not act in a sideways direction as the oven door passes from a vertical to a horizontal position in the conventional manner. Even if any settling did occur on one side of the pane, then the pane would be released from the opposite side edge, whereas F12 requires that the two mutual side edges of the inner glass bear on both the settling surfaces. Any squeezing or pressing of the pane between the two side portions through elastic forces is a fundamentally different kind of technique and cannot be construed to come within the specification of F12.

2.6 In conclusion, the board considers that E1 does not disclose feature F12.

2.7 As regards feature F14, the board does not accept the new argument put forward by the appellant and considers that a segment can be any part of a component and it is not necessary that the designated segments go together to make up the complete component. Therefore, the elastic element used to hold the panes of the first embodiment has three segments (32,39,34) which each clamp one glass with other parts making up the whole.
2.8 In view of this, the embodiment shown in figures 1 to 9 and the corresponding part of the description in El discloses:

an oven door comprising a front panel (3) provided with an outer glass; symmetrical side profiles (5,6) and an upper profile (10) provided behind said panel (3) and used for glass assembly; an inner glass (2) attached to said profiles (5,6), and at least one middle glass (4,9) provided between said outer glass (3) and inner glass (2); and at least one spring (11,12,13) positioning said glasses (2,4,9), wherein:

one "U" shaped connection tab (7,8) is provided at the lower part of each of said profiles (5,6) where the lower edge of the inner glass (2) is introduced;
the upper part of the inner glass (2) remains beneath one surface of the upper profile (10) (see figure 9) provided on the upper part of said side profiles (5,6) and wherein
the at least one spring (11,12,13) is positioned so as to exert downward force on the upper edge of the inner glass (2); and
the inner glass (2) is displaceable once it is pushed toward the upper profile (10) until it becomes free from the lower connection tabs (7,8) (see column 10, lines 30 to 48) and wherein said at least one spring has a shaped body which has a plurality of segments (32,39,34).

The subject-matter of claim 1 differs from the disclosure in figures 1 to 9 of El in that it comprises:

(i) - settling surfaces with a stepwise formation provided on both mutual edges of both side profiles
where two mutual side edges of the inner glass are settled; and in that

(ii) - said at least one spring has a plate-shaped body.

2.9 Distinguishing feature (i) facilitates the insertion and removal of the inner and middle glasses from the oven door. Distinguishing feature (ii) is an alternative way of providing the spring element.

2.10 However, as the respondent has argued, the use of a spring which has a plate-shaped body in fact creates the problem which distinguishing feature (i) helps to solve, since a plate spring does not provide the necessary guidance to the pane which therefore has to be provided by another means. Consequently, the two features are linked and the combined technical problem can be seen as one of how to provide a cost-effective assembly for facilitating the insertion and removal of the inner glass pane from the oven door.

2.11 The appellant has argued that faced with this problem, the skilled person would not only have consulted E7 and E11 which both disclose settling surfaces, but also E8 and E10 which disclose plate-shaped springs.

2.12 However, E7 indicates that only one settling surface for the outermost intermediate pane is provided since this has a lesser longitudinal extent than the outer pane 48 (see figures 3 and 7 and column 4, lines 56 to 64). Furthermore, no settling surface is clearly derivable for the second intermediate glass pane which is held in position between the resilient element 76 and the retaining element 134. As regards E11, also referred to by the appellant, this document relates to
a door for an oven relying on a pyrolytic cleaning method in which removal of the glass panes for cleaning purposes would not be necessary. In particular, the device disclosed in E11 does not clearly disclose any retaining springs. Thus, E7 and E11 do not give a clear suggestion to the skilled person regarding the implementation of settling surfaces.

2.13 The appellant has also referred to the second embodiment of E1 illustrated in figures 10 and 11. Although figure 10 of E1 discloses spring elements (103,203,303) which are made from steel (see column 17, lines 16 to 18), the holding element 150 ("Aufnahmteil") in which the springs are fixed does not constitute a plate-shaped body.

2.14 The clips 16 disclosed in the device of E10 do not act as springs in the same manner as those of the patent, since their main function is to apply a lateral force on the glass pane once it has been tilted into position. Similarly the "Blattfeder 180" shown in figure 10 of E8, referred to by the appellant, applies a horizontal retaining force on the pane.

2.15 The "Blattfeder 152" shown in figures 7 and 8 of E8 applies a downward force via its outer end 156 on the upper end of the pane 10 (see page 17, final paragraph). However, the oven door of E8 only comprises two glass panes and the spring of 152 does not have, nor need to have, a plurality of segments for holding a plurality of glass panes.

2.16 In conclusion, the board does not consider that the skilled person would consider providing an alternative form of spring element by modifying the spring of the first embodiment of E1 on the basis of information
gleaned from a first document (E8 or E10 or figure 10 of E1), and then seek to solve the ensuing problem of of needing to facilitate the insertion and removal of the glasses by consulting a further document (E7 or E11). Such an analysis is only possible with the benefit of hindsight.

2.17 Therefore, the subject-matter of claim 1 involves an inventive step and meets the requirements of Article 56 EPC.

3. Auxiliary requests

Since the respondent's main request has been allowed there is no need to discuss the auxiliary requests.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

C. Spira G. Ashley

Decision electronically authenticated