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DECISION of 26 September 1995

Case Number:

T 0867/93 - 3.2.3

Application Number:

87107860.6

Publication Number:

0248370

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Language of the proceedings: EN

Title of invention:

Refrigerator

Patentee:

MATSUSHITA REFIGERATION COMPANY

Opponent:

AEG HAUSGERÄTE GMBH

Headword:

Relevant legal provisions:

EPC Art. 54(3), 56

Keyword:

"Novelty - prior European application"

"Inventive step"

Decisions cited:

T 0002/83; T 0305/87; T 0931/92

Catchword:



Europäisches Patentamt European Patent Office Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Case Number: T 0867/93 - 3.2.3

DECISION
of the Technical Board of Appeal 3.2.3
of 26 September 1995

Appellant:
(Opponent)

AEG Hausgeräte GmbH Patentabteilung/HT88-N Muggenhofer Strasse 135 D-90429 Nürnberg (DE)

Representative:

Breiter, Achim, Dipl.-Ing. AEG Aktiengesellschaft Patent- und Lizenwesen Theodor-Stern-Kai 1 D-60591 Frankfurt (DE)

Respondent:

MATSUSHITA REFRIGERATION COMPANY

(Proprietor of the patent)

22, Takaida-Hondori 3-chome

Higashiosaka-shi Osaka-fu (JP)

Representative:

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Decision under appeal:

Decision of the Opposition Division of the European Patent Office dated 1 July 1993, dispatched on 13 August 1993, rejecting the opposition filed against European patent No. 0 248 370 pursuant to Article 102(2) EPC.

Composition of the Board:

Chairman:

C. T. Wilson

Members:

H. Andrä

L. C. Mancini

Summary of Facts and Submissions

I. European patent No. 0 248 370 was granted on 3 July 1991 on the basis of European patent application No. 87 107 860.6 filed on 30 May 1987, priority being claimed from Japan application No. 127535/86 dated 2 June 1986.

Claim 1 of the patent reads as follows:

"A refrigerator comprising:

a refrigerating chamber (8) and

a vegetable storing container (23) accommodated within said refrigerating chamber (8) and including a container main body opened at the upper surface thereof and a lid member (29) covering said upper opening of the container main body

characterized in that

said lid member (29) is formed with a humidity permeable film (31) having gas permeability;

a partition plate (6) divides said refrigerating chamber (8) into an upper cooling chamber (9a) and a lower cooling chamber (9b), said vegetable storing container (23) being accommodated within said lower cooling chamber (9b); and

a first cold air convection path (32) is defined between said lid member (29) and said partition plate (6) so as to be communicated with said upper cooling chamber (9a)."

II. The patent was opposed by the Appellant (Opponent) on the grounds of lack of novelty and inventive step of its subject-matter. The following prior art documents were cited:

.../...

D1: US-A-3 169 383

D2: DE-A-2 417 901

D3: DE-U-8 208 119

D4: DE-U-8 434 781

D5: FR-A-2 531 042

D6: EP-A-0 240 955

D7: FR-A-2 517 279

III. The opposition was rejected by the Opposition Division with the decision dated 1 July 1993, posted on 13 August 1993.

According to the decision, the earlier European patent application (D6) did not anticipate the subject-matter of Claim 1 nor would the claim be arrived at in an obvious way by the combination of the teaching of (D1) with (D5), respectively (D7).

- IV. On 29 September 1993, the Appellant filed an appeal against this decision, the appeal fee being paid on 7 October 1993. The Statement of Grounds of Appeal was filed on 26 October 1993.
- V. In a communication pursuant to Article 11(2) RPBA dated 17 January 1995 the Board expressed its provisional opinion as to the question of patentability and indicated the main issues of discussion in the oral proceedings before it.
- VI. The Appellant requests that the decision under appeal be set aside and that the patent be revoked.

In support of his request, he argued essentially as follows:

- The only difference between the claimed refrigerator and the refrigerator according to Figure 4 of document (D6) is that the vegetable container (23) according to the citation is not closed by means of a lid comprising a humidity-permeable film having gas permeability.

In the passage from page 11, line 19 to page 12, line 4 of document (D6) it is clearly pointed out that the vegetable container (31) according to Figure 7 is a further embodiment of the invention. It is also emphasised that the explanation with respect to the refrigerator according to Figure 7 is omitted for brevity's sake, since the construction thereof in this embodiment is the same as that shown in Figure 4. Thus, it is within the disclosure of document (D6) that the vegetable container (23) according to Figure 4 can be provided with a humidity-permeable lid (35) as shown in Figure 7.

As regards the issue of the factual disclosure of document (D6) the proper question to be asked is: what could prevent the skilled person from applying the vegetable container according to Figure 7 to the refrigerator illustrated in Figure 4 with the inherent problem being to avoid the formation of dew on the vegetables? Since nothing can be recognised which could hinder the skilled person from making such a substitution, it must be concluded that Claim 1 of the patent in suit is anticipated by the disclosure of document (D6).

.../...

- Document (D1) is the nearest prior art document in respect of Article 54(2) EPC. Claim 1 differs from the disclosure of document (D1) only in that the regulation of humidity is carried out by means of a humidity-permeable film having gas permeability. It is, however, known from document (D5) or (D7) that for the purpose of maintaining an atmosphere appropriate for the preservation of vegetables and in particular for the purpose of avoiding the formation of dew on the cover of a vegetable container a humidity-permeable film having gas permeability has to be applied. As the problem of creating an atmosphere favourable to the preservation of goods to be cooled has already been recognised and satisfactorily solved by the document (D1), the alleged invention consists only in substituting the humidity-permeable film known from document (D5) or (D7) for the lid element with its humidity-regulating devices, disclosed in document (D1) for obtaining the same effect. No inventive activity was required therefor.
- VII. The Respondent requests that the appeal be dismissed and that the patent be maintained.

His arguments can be summarised as follows:

- Having regard to the question of novelty it is irrelevant whether in the prior art several different embodiments are described in only a single one or in a number of prior art citations. In the present case, document (D6), Figure 7 shows the third embodiment of the invention described in document (D6).

The passage from page 11, last sentence, to page 12, first sentence, of document (D6) refers, clearly to similarities between the receptacle bodies (32;23) according to Figure 7 and Figure 4, respectively, and not to similarities in view of their arrangement in the refrigerators.

- The assumption of the Appellant that in the embodiment of Figure 7 of document (D6) a partition plate as shown in Figure 4 would be provided is incorrect since nothing in document (D6) supports such an arrangement.

In the assessment of the question of novelty of the claimed subject-matter, no mixing-up with considerations relating to the issue of inventive step is permissible.

- Having regard to the inventive step involved by the subject-matter of Claim 1 it must first of all be emphasized that the container (46) of the refrigerator known from (D1) is described as being a meat pan, a vegetable pan being designated by the reference sign "26".

Even if the skilled person would consider substituting the container known from document (D5) or (D7) for the meat pan (46) of document (D1), he would not arrive at the subject-matter of Claim 1 without taking a number of additional measures such as closing the air scoops (47) in the shelf tray (31) according to document (D1) and removing the external envelope of the container disclosed in document (D5) or (D7). Such a combination of prior art documents including the corresponding modifications of the known devices is not, however, suggested in the state of the art.

Reasons for the Decision

- 1. The appeal is admissible.
- 2. Novelty
- 2.1 It is undisputed between the parties that document (D6) upon which the Appellant's objection as to lack of novelty of the subject-matter of Claim 1 is based constitutes prior art pursuant to Article 54(3) EPC.
- 2.2 In accordance with the embodiment of Figure 4 ("first embodiment") document (D6) describes a refrigerator (11) comprising a refrigerating chamber, a vegetable storing container (23) accommodated within the refrigerating chamber and including a container main body open at the upper surface thereof and a partition plate (22) dividing the refrigerating chamber into an upper cooling chamber (19) and a lower cooling chamber, the vegetable storing container (23) being accommodated within the lower cooling chamber and a cold air convection path being defined along the partition plate (22) so as to be communicated with the upper cooling chamber (19).

There is no lid member covering the upper opening of the container main body and being formed with a humidity-permeable film having gas permeability. Furthermore, no cold air convection path is defined between a lid member and the partition plate, but, due to the container (23) being open on its upper side, the cold air will at least partially enter the interior of the container. Hence, the subject-matter of Claim 1 is novel with regard to the first embodiment shown in Figure 4 of the citation.

2.3 Figure 7 of document (D6) shows a further embodiment ("third embodiment") of the invention described therein. In this embodiment, a vegetable container (31) is provided for use in a refrigerator, the construction of which is described to be the same as that shown in Figure 4 (see page 11, lines 19 to 26 of document (D6)).

The following passages read: "A receptacle body (32) having, on its upper side, an opening portion closely covered with a cover (33) is substantially similar in configuration to the receptacle (23) shown in Figure 4. The cover (33)...is provided with...permeable film (35) securely fusion-bonded on one surface of the cover...". It is clear from these passages that it is not the receptacle as a whole but the receptacle body (32) of Figure 7 which is substantially similar in configuration to the receptacle (23) shown in Figure 4. This corresponds also with the configuration of the receptacles concerned in Figures 4 and 7 of the drawings. Document (D6) does not contain any hint that e.g. also the cover (33) of Figure 7 may be arranged in combination with the vegetable container (23) of Figure 4.

In accordance with the established jurisprudence of the Boards of Appeal (see for example T 305/87, OJ EPO 1991, 429, in particular section 5.3 and T 931/92 dated 10 August 1993 (not published in the OJ EPO)) different embodiments in a single prior art document may not normally be combined in order to create artificially an embodiment which would destroy novelty of the claimed subject-matter unless the document itself suggests such a combination of features. In the case to be decided no suggestion to substitute the vegetable container shown

.../...

in Figure 7 for that described in Figure 4 can be found so that the first and the third embodiments according to Figure 4 and Figure 7, respectively, of document (D6) have to be regarded as two distinct subjects of prior art.

2.4 According to the Appellant, the question to be asked in this context is: What could prevent the skilled person from applying the vegetable container according to Figure 7 to the refrigerator illustrated in Figure 4 with the inherent problem being to avoid the formation of dew on the vegetables?

In the view of the Board, the proper question to be asked is rather: Does document (D6) suggest in any way to envisage a substitution of the vegetable container depicted in Figure 7 for that in Figure 4? (See e.g. T 2/83 OJ EPO 1984, 265 (Section 7)). This question must be answered negatively in the present case, as illustrated above.

- 2.5 It follows that, as none of the embodiments of document (D6) discussed discloses all the features of Claim 1 of the patent in suit, the subject-matter of this claim is novel in the sense of Article 54(1) EPC.
- 3. Inventive step
- 3.1 Having regard to the prior art according to Article 54(2) EPC, the document (D1) discloses the nearest prior art.

This citation describes a refrigerator comprising a refrigerating chamber (12) and a vegetable storing container (26). A further container, i.e. meat container (46), is provided. This container includes a container main body opened at the upper surface thereof and a lid

member (shelf tray (31)) for covering the upper opening of the container main body. Furthermore, a partition plate (30) divides the refrigerating chamber (12) into an upper and a lower cooling chamber, the storing container (46) being accommodated within the lower cooling chamber and a cold air convection path being defined between the lid member (31) and the partition plate (30) so as to be communicated with the upper cooling chamber. Scoops (47) are provided in the shelf tray (31) to divert a sufficient quantity of chilled air from the cold air convection path into the meat pan to provide the proper meat storage temperatures (see Figure 2 and the pertinent description, in particular column 2, lines 35 to 48).

Claim 1 differs from this prior art in that the lid member is formed with a humidity permeable film having gas permeability.

In accordance with column 2, lines 6 to 18 of the patent in suit, the underlying problem is to improve the known refrigerator such that the humidity inside the vegetable storing container is maintained within a range suitable for preservation of the vegetables whilst preventing the formation of dew drops on the inner surface of the vegetable storage container.

The humidity-permeable film of the lid member when appropriately selected has a more or less marked resistance to the penetration of vapour and hence the dehydration of the vegetables in the container and prevents on the other hand due to its permeability water drops from gathering inside the container which may damage the vegetables. The cold air stream between the lid member and the partition-plate provides for removal

of the water vapour and the humidity-loaded air traversing the humidity-permeable film. It is, therefore, apparent that the subject-matter of Claim 1 solves the underlying problem as outlined above.

3.3 The Appellant based his objections as to lack of inventive step in the subject-matter of Claim 1 primarily on the document (D7).

This citation discloses a container for preserving goods susceptible to dehydration and spoiling such as vegetables, the container comprising an inner and an outer container box. The inner container box is covered by a lid member (8), formed with a humidity permeable film having gas permeability. The water vapour originating from the vegetables and traversing the permeable film condenses on the cold surface of the outer container box and collects at the bottom thereof. Thus, excessive drying of the vegetables and the danger of damage due to contact between the vegetables and water drops is avoided.

The document (D7) as well as the document (D5) also cited by the Appellant and describing a similar container teaches (see the respective Claims 1) that the container should be placed within a refrigerator without, however, indicating a specific location thereof.

3.4 The Appellant argues that, as the problem of creating an atmosphere favourable to the preservation of goods to be cooled has already been satisfactorily solved by the refrigerator known from document (D1), the alleged invention would only consist in substituting the

humidity-permeable film known from document (D5) or (D7) for the lid element in document (D1) for obtaining the same effect. Further according to the Appellant, such a substitution would not require an inventive activity.

As already illustrated in above section 3.1, according to the document (D1) chilled air is guided via the scoops (47) into the meat pan (46). Were the meat pan to be used for storing vegetables, the cold air contacting the vegetables would dehydrate them creating thus the problem to be solved according to the patent in suit.

Hence, the assumption made by the Appellant in his argumentation that the underlying problem has already been satisfactorily solved according to document (D1) does not correspond to the facts.

3.5 In the following it is to be investigated whether the skilled person would envisage combining the teachings of the documents (D1) and (D5), respectively (D7), and what would be the result of such a combination.

As outlined above, according to the document (D1), air scoops (47) are arranged in the shelf tray (31) in order to introduce a sufficient quantity of chilled air to provide the proper meat storage temperature in the meat pan (46). According to the mode of operation described, the arrangement of the air scoops is indispensable for the proper cooling of the meat in the meat pan so that the skilled person reading document (D1) in his search for appropriate modifications would not consider omitting therefrom the air scoops.

The container for preserving goods susceptible to dehydration as known from document (D5) or (D7) does not operate according to the concept of blowing chilled air into the container since this would lead to dehydration

of the goods which according to the inherent problem is to be avoided. The container represents a functionally closed system in which also the outer container box provided for the collection of the condensate originating from the goods is relevant for the operation of the system and cannot, therefore, be dispensed with.

Thus, the refrigerator described in document (D1) on the one hand and the container known from (D5) and (D7), respectively, on the other hand represent two systems which are fundamentally different as to their structure, operation and specific purpose.

In the opinion of the Board, the skilled person would not, therefore, envisage a substitution of these two systems as suggested by the Appellant.

Moreover, such a substitution would not lead to the subject-matter of Claim 1 without taking additional measures such as closing the air scoops in the shelf tray of the refrigerator according to document (D1) and removing the outer container box in the arrangement described by document (D5) and (D7), respectively. Such additional measures, however not only are not suggested by the prior art, but would also be opposed to the specific teaching of these documents in the sense that the intended objects could no longer be solved.

- 3.6 The Board has also examined the further prior art documents discussed in the proceedings before the first instance and has found them non-prejudial to the subject-matter of Claim 1, either alone or in combination with the documents (D1), (D5), and (D7).
- 4. For the reasons given above, the subject-matter of Claim 1 involves also an inventive step (Article 56) and is patentable under Article 52(1) EPC.

The fact that the document (D1) comes closer to the subject-matter of Claim 1 than the prior art corresponding to the first portion of Claim 1 does not give rise to an amendment of the wording of Claim 1 with regard to Rule 29(1) EPC, since neither this provision nor Article 84 EPC constitutes a ground for opposition.

5. Claims 2 to 10 are dependent upon Claim 1 and relate to advantageous embodiments thereof, and are therefore also patentable. The patent can thus be maintained in the version as granted.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

N. Maslin

The Chairman:

C. T. Wilson

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