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**Datasheet for the decision
of 16 December 2009**

Case Number: T 0516/08 - 3.2.07

Application Number: 01830739.7

Publication Number: 1316508

IPC: B65D 5/02

Language of the proceedings: EN

Title of invention:
Package for pourable food products

Patentee:
Tetra Laval Holdings & Finance SA

Opponent:
SIG Technology AG

Headword:

-

Relevant legal provisions:
EPC Art. 56

Relevant legal provisions (EPC 1973):

-

Keyword:
"Inventive step: no"

Decisions cited:
T 0142/84, T 0176/84

Catchword:

-



Case Number: T 0516/08 - 3.2.07

D E C I S I O N
of the Technical Board of Appeal 3.2.07
of 16 December 2009

Appellant: Tetra Laval Holdings & Finance SA
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 2 January 2008
revoking European patent No. 1316508 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: H. Meinders
Members: K. Poalas
E. Dufrasne

Summary of Facts and Submissions

- I. The appellant (patent proprietor) lodged an appeal against the decision of the Opposition Division revoking the European patent No. 1 316 508.
- II. Opposition had been filed against the patent as a whole based on Article 100(a) EPC on the ground of lack of inventive step (Article 56 EPC).
- III. The Opposition Division found that the subject-matter of claim 1 according to each of the main and first to third auxiliary requests does not involve an inventive step.
- IV. The following documents are mentioned in the present decision:

E1: US 5 938 107 A,
E2: US 2 067 998 A.
- V. Oral proceedings before the Board of Appeal took place on 16 December 2009.
 - (a) The appellant requested that the decision under appeal be set aside and that the patent be maintained as granted.
 - (b) The respondent (opponent) requested that the appeal be dismissed.

VI. Independent claim 1 as granted reads as follows:

"A sealed package (1) for liquid food products, comprising a four-sided top wall (2) having four top corners (8); a four-sided bottom wall (3) having four bottom corners (9); four lateral walls (4) extending between said top wall and said bottom wall; four corner walls (5), each extending between two consecutive lateral walls and between said top wall and said bottom wall; four pairs of top diagonal crease lines (10a), each said pair of top diagonal crease lines (10a) being connected to a respective top corner (8), extending diagonally downwards, and delimiting a top portion of a respective corner wall (5); and four pairs of bottom diagonal crease lines (10b), each pair of bottom diagonal crease lines (10b) being connected to a respective bottom corner (9), extending diagonally upwards, and defining a bottom portion of a respective corner wall (5); characterized in that each pair of top diagonal crease lines (10a) is joined to a respective pair of bottom diagonal crease lines (10b) at two respective intersections (11) spaced to each other".

VII. In support of its request the appellant submitted the following arguments:

The objective technical problem affecting the package of E1 is how to improve the gripping of the container by making it less slippery when damp, and not simply less slippery. When the container is not damp, there is no problem of slippage, even in the parallelepiped shape. Further the buckling at the bottom should be prevented.

E2 does not strictly belong to the same technical field of sealed packages for liquid food products and the skilled person would not even consider it. E2 neither refers to the above-mentioned objective technical problems nor contains any indication about the fact that the particular configuration of the waist shaped corner walls of the container of Figure 11 may provide improved gripping when the container is damp. Furthermore, the shape of the package shown at Figure 11 of E2 is only one of the 12 possible alternative shapes disclosed in that document without any statement about particular advantages achieved by this particular solution. There is no hint in E2 for the person skilled in the art to combine either the teaching of E2 as a whole or of the embodiment depicted in Figure 11 of E2 with the teaching of E1 thus arriving at the subject-matter of claim 1 of the patent in suit. E2 is completely silent as to the slippage problem.

As indicated in the Guidelines for Examination, (C-IV, 11.7.3), the prior art document should contain a teaching that **would** have prompted the skilled person, faced with the objective technical problem, to modify or adapt the closest prior art while taking account of that teaching. According to T 176/84 (OJ EPO 1986, 50) the teachings of two documents may only be combined with each other if they have a reference to a similar or common problem. None of these requirements is met by the combination of E1 and E2.

In fact, the skilled person would not wish to depart from the parallelepiped form of the package of E1 since E1 mentions this as important.

In addition, adding the gripping feature shown in the blank of Figures 14 and 15 of E2 to the blank of Figure 1 of E1 would bring with it the special lateral profile of the left hand side of the blank, namely the broken line profile indicated with 37d and 37d' in Figure 14 of E2. This would not work with the rectilinear profile indicated with reference 11 in Figure 1 of E1. Since the teaching extracted from E2 is obviously not limited to the structure of the corner walls this structure cannot be straightforwardly implemented in the package of E1 without performing structural and functional modifications of the other elements thereof. This is particularly so since E2 relates to singular packaging blanks. Whereas E1 relates, by the fact that it is a package for holding liquids, to a continuous web material folded into the final package on continuously operating filling machines.

It is not feasible to have the blank of Figure 14 of E2 sealed for use with liquids. It is glued but it is not sealed, since for sealing a plastic material is required.

The problem of the tendency to buckle at the bottom of the package known from E1 due to hydrostatic pressure as mentioned in [0014] of the patent specification is solved by the subject-matter of claim 1 due to a synergistic effect obtained by the waist shaped corner walls. There is no mention of this problem in the state of the art documents.

Finally, the dates of the documents E1 and E2 give a clear indication that the development of the claimed

package, which has been incorrectly considered as the result of normal design work by the Opposition Division, required in fact as many as five years, so that it was not so easy to be put into practice for the persons skilled in the art.

VIII. The above submissions were contested by the respondent.

The respondent argued that the buckling effect was not necessarily achieved by all embodiments falling within the generally formulated claim 1. In fact the embodiment of Figures 4 and 5 of the patent showed a noticeable buckling.

E2 constituted prior art to be taken into account for inventive step as the field of folded together blanks to form a box was, if not the same field, a closely related field for packages for holding liquids, as is also illustrated by the documents marked as relevant (X) in the search report, coming from the same field as E2.

The fact that E2 relates to a blank for a package has no relationship with the design of the corner walls of that rectangular package; in any case, E2 also mentions other forms of package, such as a tube form which is exactly the one used on automatic filling machines folding a continuous web into a tube before filling it with a liquid, see page 1, left column, lines 26 to 37, page 5, left column, lines 2 to 17.

The appellant's argument that the box of E2 was not usable for liquids cannot hold, as it is not that box which is considered the closest prior art for inventive

step; it is the one disclosed in E1, which is already liquid-tight.

The corner walls of E2's embodiment of Figures 11 to 13 have the design which is closest to the design of the crease lines of the package of E1, so constitute the indication for the skilled person to apply them to the package of E1.

Reasons for the Decision

1. It is undisputed that E1 represents the closest prior art in that it discloses a sealed package according to the preamble of claim 1, directed to the same purpose: holding liquids.
2. The sealed package of claim 1 differs therefrom in that each pair of top diagonal crease lines in the corner walls is joined to a respective pair of bottom diagonal crease lines in the corner walls at two respective intersections spaced to each other.
3. These distinguishing features of the package of claim 1 improve the gripping of the package.
4. The appellant argued that the problem to be solved in the present case is the more specific one mentioned in paragraph [0014] of the patent, namely to improve the gripping of the package by making it less slippery when damp and at the same time to reduce the tendency of the package to buckle at the bottom due to hydrostatic pressure.

Independently of the fact whether the package itself is damp or whether only the user's hands are wet the Board is of the opinion that with the differentiating features, generic as they are, the above-mentioned problems are only solved by mutually excluding specific embodiments of the claimed invention.

In fact, as pointed out by the Board in the oral proceedings, in the embodiment of Figures 1 to 3 (claims 6 and 8) of the patent in suit, the package will slip by gravity in the hand until the waist-shaped cross-section reaches the hand, if the package is not immediately gripped at this section.

In the other embodiment, of Figures 4 and 5 (claims 7 and 8), the tendency to buckle at the bottom is not at all prevented, rather it is enhanced as argued by the respondent. In any case, the patent in suit does not contain any further information as to how the solution of the buckling problem has been achieved. Accordingly, the Board finds that the problem to be solved in the present case is a less ambitious one: improving the gripping of the package known from E1.

5. The Board is convinced that the person skilled in the art starting from the package of E1 already having a particular form of corner walls providing a smaller cross-section for easier gripping of the package, seeking to solve the problem mentioned above and having in mind the different possibilities of designing the corner walls of a folding box for pourable products, namely the possibilities known from E2, would choose the corner wall configurations shown in Figures 11 to

13 without exercising an inventive activity.

6. The Board considers that the person skilled in the art reading through E2 would immediately recognise that the package configuration shown in Figures 11 to 13 of E2 shows corner walls providing a better gripping of the package when compared to mainly planar corner walls. The package configuration shown in Figures 11 to 13 is the one which is most similar to the package known from E1, the closest prior art package also having planar side walls. The package form of E1, is also one of the other alternative package forms of E2 (see Figure 26 and page 4, right column, lines 18 to 41. Furthermore, even though the 12 different corner wall configurations shown in E2 are presented therein as being equivalent to each other, as no single one of them has been characterized as being more preferable than the others, the selection of the configuration of the corner walls of Figures 11 to 13 is obvious to the skilled person in view of the comparable planar side walls as well as the same simplicity in the design of the straight crease lines in the material forming the package, in particular those forming the corner walls.

7. The appellant argued that the person skilled in the art starting from the package of E1 would not consult E2, nor would he combine their teachings (see point VII above).

7.1 The Board cannot follow the appellant's arguments for the following reasons:

7.1.1 E1 is directed to packaging containers formed from laminated packaging material that is provided with fold

lines or crease lines in order to facilitate conversion of the packaging material into individually filled and sealed packaging containers of generally rectangular form with planar side walls and a particular design of the corner walls, and to **blanks** or packaging material from which the containers are formed, see column 1, lines 12 to 17, so not necessarily only the ones formed out of a continuous web of packaging material. In fact, the figure description clearly refers to blanks for a packaging container.

E2 is directed to blanks which, when folded into shape, form a packaging container of generally rectangular shape, also with a particular design of the corner walls, obtained by suitably scored and/or creased lines, which when set up presents planar side walls, see page 1, left column, lines 3 to 25. However, E2 also mentions that the package can be formed out of composite web material, see page 4, right column, lines 65 to 72, which is the material used for the packages of E1. The packages of the embodiments of E2 are also readily adapted to automatic machine filling, closing and/or sealing and are to be hand-held, see page 5, left column, lines 43 to 55 as well as lines 61 and 62. The above leads the Board to the conclusion that, if E2 and E1 do not belong to the same technical field, then at least they belong to closely neighbouring fields (see T 176/84, (*supra*), point 5.3.1 of the reasons).

7.1.2 On that premise, the Board considers, however, that the person skilled in the art seeking to improve the gripping of the sealed package for liquid food products known from E1 would not limit its search for suitable

solutions only to the field of sealed containers for liquid food products but would consider also that the improvement of the gripping of a package could be a problem in the neighbouring field of packaging and would therefore take into particular consideration the closely neighbouring field of the packages of E2, which also need to be hand-held when pouring contents, see page 5, left column, lines 61 and 62.

The fact that E2 also suggests the form of package corresponding to the form of package of E1 is another indication for the skilled person of E2's possible relevance, see the embodiment shown in Figure 26 and described on page 4, right column, lines 40 to 42 in conjunction with lines 18 to 35.

Further, both types of packaging correspond also in that they are provided with appropriately scored or creased folding lines bringing the package in its final shape and forming the particular form of the corner walls.

- 7.1.3 The appellant's further argument that since E1 and E2 are not directed to similar problems a combination of the teachings of said documents would not be in line with the decision T 176/84 (*supra*) cannot be followed by the Board either.

Firstly, this decision makes a distinction between closely related technical fields, where the skilled person would be seeking a solution to a given problem, and a more general field, for which an additional requirement applies, namely that the same or similar problems have to extensively arise both in the special

and the general field of technology and that a person skilled in the art is aware of that or those problems (see reasons point 5.3.1).

As can be seen in point 7.1.2 above, the Board considers this decision to apply for its first part (closely neighbouring fields), not its second part (general field).

Secondly, it is conceded that E2 does not explicitly deal with the problem with which the patent in suit is concerned. Nevertheless, according to the jurisprudence of the Boards of Appeal, it is not necessary that the problem solved should have been stated *expressis verbis* in a prior art document, in order to establish that an inventive step is lacking on the basis of the disclosure in that document.

When a feature, in the present case the waist shaped corner walls, is known from a document in the same specialised field, and solves the same problem, then the fact that the skilled person would not encounter insurmountable difficulties in applying this known feature to a known apparatus from a second document does demonstrate that the documents are not conflicting and that an inventive step is lacking, see also T 142/84 (OJ EPO 1987, 112, reasons point 8.1).

For the situation of the present case the present Board is of the opinion that this principle can also be applied to the closely neighbouring field of E2 and thus to E2: once confronted with the package of Figures 11 to 13 of E2, the skilled person would immediately recognise that that package with the

typical waist shaped corner walls can be held in the hand of a consumer better than one with planar corner walls and merely requires a different design of the, in any case already straight, scoring and/or crease lines in the corner wall positions.

8. The appellant's further argument that the skilled person would not wish to depart from the parallel piped shape of the package of E1 is not based on any particular mention of this form or importance attributed to it in E1, and in fact supposes that the skilled person, starting from E1, does not want to damage the design to solve the problem of both gripping the package, a reasoning to which the Board cannot lend support. In actual fact, this form is mentioned as an intermediate form in E2, page 5, left column, lines 15 and 16.

9. The appellant argued that the structure of the corner walls of E2 also affects the way in which the longitudinal or vertical sealing of the package of E1 is carried out. Therefore, the above-mentioned "straightforward" implementation of the corner wall structure of E2 in the package of E1 is not so straightforward, as it requires at least a modification of the type of longitudinal liquid tight sealing and the way to perform it in continuous filling machines. The blanks of E1 and E2 contain inherent incompatibilities in features essential to the invention.

The Board finds this not to be applicable to the present case. Firstly, the person skilled in the art is not discouraged by this aspect, if it applies, as also

E2 refers to first forming the blank into a sleeve form (see page 5, left column, lines 2-13). This can only work if the vertical side edges of the blank shown in Figures 11 to 13 of E2 are unbroken, parallel lines. Secondly, E2 mentions specifically that the sealing can be adapted to automatic sealing and filling machines, see page 5, left column, lines 44 to 55. The way of performing longitudinal sealing does not require more than the application of ordinary skills of the skilled person in the field of packaging.

10. A further argument put forward by the appellant is that the publication dates of documents E1 and E2 (1996 and 1937) lay too far apart and the significant time (more than five years) which had elapsed between E1 and the application date of the patent in suit (2001), were a clear indication that the present invention was not so easy to arrive at for the persons skilled in the art.

As regards the age of E2 the Board concurs with the case law in this respect (see Case Law of the Boards of Appeal, 5th edition 2006, Chapter I.D.3.7) that this can only play a role as regards the closest prior art, which is E1, not E2.

In this respect the five years between the closest prior art E1 and the filing of the application for the present patent cannot in itself be seen as an evidence for the presence of an inventive activity either. With respect to E2, supporting the missing teaching, having been published 64 years before the application date the Board also concurs with the case law (see Case Law of the Boards of Appeal (*supra*), Chapter I.D.9.3) that it is not that period that counts, but that between the

time at which the problem became apparent and the application date, which in any case cannot be longer than the five years between E1 and the application date, because it was with the package of E1 that the gripping problem emerged in the first place, A period of five years in the field of packaging cannot really be seen as long, particularly as it may result from a variety of causes: for example, there may have been a commercial reason for not adopting this new technique, because the old technique was found satisfactory by the clients and could also be improved in a different way, thus avoiding considerable investment costs involved in the adoption of a new technique on an industrial scale.

11. Finally the argument that the box of E2 is not suitable for liquids cannot help either, as that aspect only holds good for E2 being the closest prior art, which it is not. Further, the design of the corner walls is not in any way linked to the liquid-tightness of the package either.

12. For the above-mentioned reasons the subject-matter of claim 1 does not involve an inventive step and therefore does not meet the requirements of Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

G. Nachtigall

H. Meinders