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D E C I S I O N
of 3 February 1994

Case Number: T 0545/93 - 3.2.1

Application Number: 85201998.3

Publication Number: 0 183 326

IPC: B65D 43/06

Language of the proceedings: EN

Title of invention:
Nestable container with lid

Patentee:
Superfos Verpakkingen B.V.

Opponent:
Dijkstra Plastics B.V.

Headword:
-

Relevant legal norms:
EPC Art. 56

Keyword:
"Inventive step (yes)"

Decisions cited:
-

Headnote/Catchword:
-



Case Number: T 0545/93 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 3 February 1994

Appellant: Dijkstra Plastics B.V.
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Respondent: Superfos Verpakkingen B.V.
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Representative: Patentanwälte
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office given on 26 November 1992
and issued in writing on 7 April 1993 rejecting
the opposition filed against European patent
No. 0 183 326 pursuant to Article 102(2) EPC.

Composition of the Board:

Chairman: F. Gumbel
Members: S. Crane
J-C. de Preter

Summary of Facts and Submissions

- I. European patent No. 0 183 326 was granted on 20 July 1988 on the basis of European patent application No. 85 201 998.3.

Independent Claim 1 of the granted patent reads as follows:

"Nestable container (1) with lid (2), both made of plastic, the lid of which comprises a central portion (14) and, on the circumference thereof, a skirt (18) with flange (19) turned down over the edge (7) of the container, in which assembly inward skirt portions may engage under outward container portions to hold the lid onto the container, the angle of inclination between the container wall and the vertical differs in the upper reaches from that in the lower reaches, and the wall (4) of the container is provided all around with a container flange (8) with a descending auxiliary wall (10) to which optionally a bail (24) can be fastened, the container with lid being characterized in that near its top edge the wall of the container passes, via a sharp bend (5), into a lip (6) at the mouth of the container, which lip has an angle of inclination in respect of the vertical larger than the rest of the container wall (4), in that the container flange (8) with the descending auxiliary wall (10) is positioned between the sharp bend (5) in the wall and the top edge (7) of the container, in that radial plates (11) have been provided all around the container between the wall (4) of the container and the auxiliary wall (10), the bottom ends (13) of which plates serve as nesting stops in the nesting of the containers, in that one or more recesses (21) have been made at the junction (9) between the flange (8) of the container and the auxiliary wall (10), which recesses

have mouths both on top of the container flange and on the outside of the auxiliary wall, in that the skirt (18) of the lid (2) tapers inwardly in a downwards direction and the flange (19) is provided at its free end is outwardly flared so that, when the container is closed, the inside of the skirt is in sealing contact with the outer wall of the container above the container flange (8), in that the flange (19) of the lid lies on the flange (8) of the container and covers the recesses (21) at least in part and in that the circumference of the auxiliary wall constitutes the greatest circumference of the container-lid assembly."

Dependent Claims 2 to 10 relate to preferred embodiments of the container according to Claim 1.

II. The patent was opposed by the Appellants on the grounds that its subject-matter lacked inventive step (Articles 100(a) and 56 EPC) with regard to the state of the art represented by the following documents:

(D1) US-A-4 004 710

(D2) Leaflet entitled "10Ltr. Serie III Emballasjepann" issued by Dyno Kongsvinger AS

(D3) US-A-4 412 630.

III. By its decision given at oral proceedings on 26 November 1992, and issued in written form on 7 April 1993, the Opposition Division rejected the opposition.

IV. An appeal against this decision was filed on 7 June 1993 and the appeal fee paid at the same time. The Statement of Grounds of Appeal was filed on 23 July 1993.

The Appellants request that the decision under appeal be set aside and the patent revoked in its entirety.

V. The arguments presented by the Appellants in support of their request can be summarised as follows:

In the opposition proceedings the case had been put forward that the various features of Claim 1 were each known or obvious *per se* and had no functional interrelationship so that the subject-matter of the claim lacked inventive step.

In the contested decision it had been found that a common idea linked the features of the claim, namely that of providing improved stability, and therefore a functional interrelationship existed between them. That finding was incorrect. In fact only two of the features of the characterising clause of the claim, namely the outward taper of the lip of the container and the inward taper of the skirt of the lid, could be seen as making a contribution to improved stability. These features were well known *per se* and shown for example in document D3. As the remaining features of the claim had to be disregarded when assessing inventive step, since they did not contribute to the solution of the identified technical problem, it was apparent that the subject-matter of Claim 1 was obvious.

That the above approach was the correct one when evaluating the inventive step of what was a mere collocation of features without any cumulative effect, and where only some of these features contributed to the solution of the stated problem, was supported by the Decisions T 144/85 of 25 June 1987 (not published) T 98/83 of 31 January 1984 (not published) and T 37/82 (OJ EPO 1984, 071).

VI. The Respondents (Proprietors of the patent) request that the appeal be dismissed. In support of this request they argue substantially as follows:

For a proper evaluation of inventive step it was essential to compare the claimed subject-matter with the closest state of the art and to see what technical effects were achieved by the features distinguishing it from that state of the art. It was wholly inappropriate to disregard some of the distinguishing features from that evaluation. In any case the aim of the invention was to provide a nestable container with high performance with respect to the desirable standards in that field, in particular leakproofness and low price. Low price could be achieved by providing a reduced uniform wall thickness. Since this however could impair leakproofness unless suitable measures were adopted, it was apparent that these two aspects were closely interwoven. A proper analysis of the distinguishing features of Claim 1 would show that in fact they were all associated with achieving the aim identified above. Furthermore, the contention of the Appellants that all of these features were known or obvious *per se* was in any case incorrect. Thus, the positioning of the container flange with respect to the container wall and the form of the recesses in the container flange and auxiliary wall could not be derived from the cited state of the art.

Reasons for the Decision

1. The appeal conforms with the requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC. It is, therefore, admissible.

2. *State of the art*

2.1 Document D1 discloses a nestable container the top open edge of which is in the form of a thickened bead which sealingly engages in an open downwardly facing channel in the rim of the container lid. Spaced from the top edge of the container there is an outwardly directed container flange from which an auxiliary wall depends. A series of radial ribs are arranged at the top end of the annular space between the container wall and the auxiliary wall. Diametrically opposed bail anchoring means are attached to the auxiliary wall these anchoring means also having downwardly projecting fingers which serve to act as nesting stops when the containers are nested. The outermost flange of the lid is spaced from the container flange leaving a gap into which a tool can be inserted for removing the lid.

2.2 The container shown in document D2 can be seen to have a series of radial plates provided around the container in the annular space between the wall of the container and an auxiliary wall depending from a container rim flange. It is apparent from the dimensions involved that these radial plates will act as nesting stops when the containers are nested and that the auxiliary wall constitutes the greatest circumference of the container lid assembly.

2.3 The container disclosed in document D3 has a lip region at the mouth of the container which tapers outwardly at a greater angle than the body of the container wall and which sealingly engages in a correspondingly outwardly tapering channel formed in the rim of the container lid. This channel is defined on its outside by an inwardly tapering skirt which carries at its free end a radially extending flange for engaging a corresponding flange extending from the wall of the container. In order to

assist proper location of the lid on the container the container flange has at least one alignment slot into which an alignment tab depending from the lid flange extends.

3. *Novelty and inventive step*

3.1 The container shown in document D1 is very similar in structure to that shown in US-A-4 165 020 which is mentioned in the description of the contested patent and on which the preamble of granted Claim 1 is based. The only relevant distinction is that in document D1 there are described radial plates provided around the container between the container wall and the auxiliary wall, this feature appearing in the characterising clause of granted Claim 1. The radial plates shown in document D1 do not however act as nesting stops as required by the claim. With the exception of the feature relating to the provision of radial plates the subject-matter of granted Claim 1 is therefore distinguished from the state of the art according to document D1 by the features specified in the characterising clause of the claim.

As documents D2 and D3 do not relate to a container conforming the preamble of granted Claim 1 it is apparent that its subject-matter is novel. Since this issue has not been in dispute in the proceedings further elucidations are unnecessary.

3.2 In the description of the contested patent various disadvantages associated with the container according to US-A-4 165 020 are discussed. In view of the similarities of structure all of these perceived disadvantages are equally well associated with the closest state of the art according to document D1.

They can be summarised as follows: The thickened bead at the rim of the container increases material and production costs, the latter because it requires a longer cooling period in the mould. The gap between the lid flange and the container flange can lead to the known effect of "climbing" when containers are transported side-by-side which can in turn result in the lid being lifted from the container and to leaks. The form of the nesting stops is inconvenient as they can snag in clothing or the like and can also, when the containers are nested, damage the rim of the underlying container and thereby prevent a good seal being obtained.

It is the stated aim of the invention to provide a nestable container with lid that does not have these disadvantages, or to a far smaller degree.

- 3.3 It belongs to the established jurisprudence of the Boards of Appeal that the evaluation of inventive step is to be performed on the basis of an objective problem and solution approach, see for example Decision T 184/82 (OJ EPO 1984, 261, point 4). This approach requires that the technical effects actually achieved by the features distinguishing the claimed subject-matter from the state of the art be determined and that the technical problem be formulated accordingly.

It is the opinion of the Board (see also T 65/88 of 30 March 1989, point 4.6) that Headnote II of Decision T 37/82 (*supra*) to which the Appellants have referred and which reads

"In assessing the inventive step of a combination of features consideration must be given to a feature only if the applicant has provided evidence that it contributes either independently or in conjunction with

one or more of the other features, to the solution of the problem set in the description.",

does not therefore properly reflect the subsequently elaborated and consistently applied objective problem and solution approach as described above. Instead, it is incumbent on the Board to formulate the technical problem in such a way that the distinguishing features specified in the claim contribute to its solution.

- 3.4 In the present case the Board is satisfied that the particular form of the top region of the container and of the rim region of the lid co-operating therewith, as specified in granted Claim 1, provide a container-lid assembly which although cheap to produce nevertheless has good leakproofness. The latter results not only from the improved lateral stability of the top region of the container and lid but also from the facts that firstly "climbing" of the containers and possible dislodging of the lid is avoided by having the lid flange lie on the container flange with the auxiliary wall constituting the greatest circumference of the container-lid assembly and secondly the large number of radial plates acting as nesting stops distribute the load around the rim of the underlying container in a nested stack and so cannot damage this.

Only one of the various distinguishing features of Claim 1 does not fit immediately into this schema. This is the provision of the recesses in the container flange and auxiliary wall which serve to enable easy removal of the lid. It is apparent however that the provision of some such means for facilitating removal of the lid is a consequence of the measures taken to eliminate the gap between the lid flange and container flange as shown in document D1.

In view of the above the technical problem to be solved in relation to the closest state of the art according to document D1 is to be seen in the provision of a container-lid assembly which is cheap to produce, has good leakproofness and is convenient to use.

- 3.5 It is apparent from the discussion in points 2.2 and 2.3 above that between them documents D2 and D3 disclose the majority of features specified in the characterising clause of granted Claim 1. In particular, the container shown in document D2 has an auxiliary wall which constitutes the greatest circumference of the container-lid assembly and the radial plates provided between the wall of the container and the auxiliary wall as nesting stops. The container according to document D3 on the other hand has a top lip that flares outwardly via a bend from the body of the container and has a larger angle of inclination to the vertical than the main body wall, the skirt of the lid tapering inwardly and its inside engaging the outer surface of the lip with a flange at the free end of the skirt lying on the flange of the container. However, no reason can be seen why a skilled man would have combined the above features disclosed in documents D2 and D3 with those known from document D1 and even if he were to do so there is nothing in the state of the art that could lead him to position the container flange between a sharp bend in the wall and top edge of the container or to provide one or more recesses at the junction between the flange of the container and the auxiliary wall, as required by granted Claim 1. With respect to the first feature the Board cannot accept the contention of the Appellants that it is irrelevant where the container flange is positioned since clearly the lateral stability of the lip will be increased by the claimed arrangement. As for the recesses it cannot be validly argued that their provision follows automatically from the elimination of

the gap between the lid and container flanges since any number of known alternatives are available to the skilled man for facilitating removal of the lid, and nothing comparable to such recesses has been demonstrated as being known *per se*.

The central premise of the Appellants that all the features of granted Claim 1 are known or obvious *per se* therefore falls. In these circumstances there is no need to consider to what extent those features have a functional interrelationship leading to a combinative effect (see Decision T 111/86 of 30 June 1987, point 4.6). Contrary to what the Appellants argue and attempt to support by reference to the Decisions T 144/85 and T 98/83 the existence of such an effect is not in any case a pre-requisite for establishing inventive step. Both of those cases dealt with situations in which all the features of a claim were known *per se* it becoming only at that point necessary to consider to what extent the features have a combinative effect and the nature of that effect.

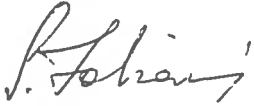
Having regard to the above the Board comes to the conclusion that the subject-matter of granted claim cannot be derived in an obvious manner from the state of the art and accordingly involves an inventive step.

Order

For these reasons, it is decided that:

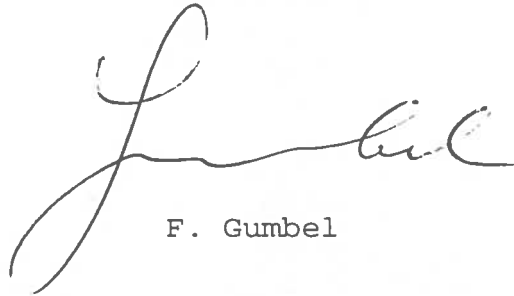
The appeal is dismissed.

The Registrar:



S. Fabiani

The Chairman:



F. Gumbel

