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Datasheet for the decision of 22 February 2013

Case Number: T 2060/09 - 3.2.07

Application Number: 99109245.3

Publication Number: 960820

IPC: B65D 1/02, A61J 1/06

Language of the proceedings: EN

Title of invention:
Sealed container including a nozzle with a sealing bead

Patent Proprietor:
AUTOMATIC LIQUID PACKAGING, INC.

Opponent:
kocher-plastik Maschinenbau GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56

Keyword:
"Claim 1 main request - lack of novelty, features relating to a second entity not to be considered (points 2.3, 3.2 and 4.1)"
"Relevance and public availability of prior use - container - no convincing reasons for deviation from the impugned decision (point 6.2)"
"Relevance to be differently assessed with respect to inventive step (points 6.3, 6.3.1 and 6.3.2)"
"Inventive step - no, distinguishing feature without particular effect (points 8.1.3, 8.2.1 and 8.2.3)"

Decisions cited:
T 0455/92, T 0194/99

Catchword:
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Case Number: T 2060/09 - 3.2.07

D E C I S I O N
of the Technical Board of Appeal 3.2.07
of 22 February 2013

Appellant 02: (Patent Proprietor)
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Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 17 August 2009 concerning maintenance of European patent No. 960820 in amended form.**

Composition of the Board:

Chairman: H. Meinders
Members: H.-P. Felgenhauer
E. Kossonakou
H. Hahn
I. Beckedorf

Summary of Facts and Submissions

I. The opponent (appellant 01) and the proprietor (appellant 02) have each filed an appeal against the decision of the opposition division maintaining European patent No. 0 960 820 in amended form.

Appellant 01 requested with the notice of appeal dated 12 October 2009, that the decision under appeal be set aside and the patent be revoked. Further, that the appeal of the patent proprietor be dismissed.

Appellant 02 requested in writing with the notice of appeal dated 26 October 2009, that the decision under appeal be set aside and that the patent be maintained as granted. Further, with letter dated 14 May 2010, that the appeal of the opponent be dismissed.

Appellant 02 gave notice with fax of 11 February 2013 that it would not be present at the oral proceedings.

II. Claim 1 according to the main request (as granted) reads as follows:

"A hermetically sealed, molded thermoplastic dispensing container which comprises:

a nozzle (16, 116, 216) unitary with the container (10, 110, 210) and defining a dispensing aperture (18);

a removable closure unitary with the nozzle (16, 116, 216) and occluding the aperture (18);

said nozzle (16, 116, 216) being adapted to receive the hub (36) of a dispensing assembly (34) in a mating relationship; the hub including an inner surface (38) defining a cavity (40);
characterized by a resilient and compressible annular bead (26, 126, 226) extending outwardly about the periphery of the nozzle (16, 116, 216), unitary therewith and spaced from the aperture (18) and being sized such that the diameter thereof in the region of engagement is greater than the diameter of the cavity (40) defined in said hub (36) whereby said bead (26, 126, 226) is compressed when the hub (36) is received over said bead (26, 126, 226) and said bead (26, 126, 226) exerts a sealing force against the inner surface (38) of the hub (36) in the region of engagement between the hub (36) and the bead (26, 126, 226) to provide a liquid seal between the hub (36) and the nozzle (26, 126, 226) in the region of engagement".

Claim 1 of the patent as maintained by the decision under appeal reads as follows:

"Use of a hermetically sealed, molded thermoplastic dispensing container with a dispensing assembly comprising a hub (36), said hub including an inner surface (38) defining a cavity (40),
wherein said container comprises:
a nozzle (16, 116, 216) unitary with the container (10, 110, 210) and defining a dispensing aperture (18);
a removable closure unitary with the nozzle (16, 116, 216) and occluding the aperture (18);
said nozzle (16, 116, 216) being adapted to receive the hub (36) of said dispensing assembly (34) in a mating relationship;

said container further comprising a resilient and compressible annular bead (26, 126, 226) extending outwardly about the periphery of the nozzle (16, 116, 216), unitary therewith and spaced from the aperture (18) and being sized such that the diameter thereof in the region of engagement is greater than the diameter of the cavity (40) defined in said hub (36) whereby said bead (26, 126, 226) is compressed when the hub (36) is received over said bead (26, 126, 226) and said bead (26, 126, 226) exerts a sealing force against the inner surface (38) of the hub (36) in the region of engagement between the hub (36) and the bead (26, 126, 226) to provide a liquid seal between the hub (36) and the nozzle (26, 126, 226) in the region of engagement".

III. Prior art

The following prior art relied upon in the decision under appeal is referred to:

D4 FR-A-2 718 017

A1 Public prior use "Thilo"; ampoules according to drawing no. 655-20/101H

D7 ISO Standard 594/1 concerning Luer-fittings.

IV. In the decision under appeal the public prior use "Thilo" (enclosure A1) has been considered as proven and thus as forming part of the prior art (reasons, points 2.1 and 2.2).

The subject-matter of this public prior use was considered to be a dispensing container of which the

distal end, in the wording of claim 1 as granted and as maintained: the end defining a dispensing aperture, is to be connected to a conventional Luer-type fitting. A bead has been added around the distal end to improve the seal with the Luer-type fitting.

According to the impugned decision the container according to claim 1 as granted is novel over the public prior use "Thilo" but lacks novelty over D4.

V. The Board indicated in the annex to the summons for oral proceedings (further: the annex) i.a. that claim 1 as granted is directed to a single entity, namely a container, and that features in the claim relating to a second entity (the hub) do not form part of the subject-matter defined by this claim (points 7.1.1 and 7.1.2). Based on this understanding of the subject-matter of claim 1 of the patent as granted the result of the examination of novelty (with respect to D4) according to the impugned decision (reasons, point 3.0 i)) appeared to be correct (points 7.4.1 and 7.4.2).

The result of the impugned decision's examination of novelty with respect to the subject-matter of claim 1 of the patent as maintained (reasons point 3.7.2), was also correct in that the prior art, D4 and the public prior use "Thilo", do not disclose the claimed use of a dispensing container together with a hub (point 7.4.3).

Under the heading "7.3 Consideration of alleged public prior use "Thilo"" the Board referred to aspects to be taken into account with respect to the relevance of this alleged prior use and its alleged public availability.

VI. The submissions of appellant 01 given in writing and during the oral proceedings can be summarised as follows:

(a) Claim 1 of the patent as granted is directed to a dispensing container. Features relating to a hub do not form part of the container nor do they further define the container of claim 1. They thus need not be taken into account in the examination of novelty.

(b) The subject-matter of claim 1 of the patent as granted lacks novelty over D4.

(c) The public prior use "Thilo" has correctly been considered in the impugned decision as prior art.

(d) The subject-matter of claim 1 of the patent as maintained is not novel in view of the use of the container according to the public prior use "Thilo".

(e) The subject-matter of claim 1 as maintained does not involve an inventive step over the use of the container according to the public prior use "Thilo".

VII. The submissions of appellant 02 given in writing can be summarised as follows:

(a) Although claim 1 of the patent as granted is directed to a dispensing container it is evident that the features in the claim relating to a hub

contribute to further define the container. They thus cannot be disregarded in the examination of novelty.

(b) The subject-matter of claim 1 is novel over D4.

(c) The alleged public prior use "Thilo" is not relevant and its public availability as well as its use in connection with a dispensing assembly has not been proven.

(d) The subject-matter of claim 1 as maintained involves an inventive step with respect to the container known from D4, which is to be considered as closest prior art.

VIII. Oral proceedings before the Board, in which appellant 02 was not present (cf. point I above), took place on 22 February 2013.

Reasons for the Decision

1. *Procedural aspects*

Although having been duly summoned appellant 02 did not attend the oral proceedings, as announced. According to Rule 115(2) EPC and Article 15(3) RPBA, the oral proceedings were held without that party.

Main request

2. *Subject-matter of claim 1*

2.1 According to appellant 01 claim 1 defines a dispensing container comprising a nozzle. The features relating to a hub are not to be considered as forming part of the subject-matter of this claim and thus have to be disregarded.

2.2 Appellant 02 agreed to the Board's opinion of the annex that claim 1 is related to a container and is supposed to describe features of this container.

Concerning the features of claim 1 relating to the hub which was referred to in this claim as a second entity it expressed the view, referring to decisions T 0455/92 and T 0194/99 (both not published in the OJ EPO), that these features should also be taken into account since they contribute to the definition of the container itself.

2.3 The Board does not find the arguments of appellant 02 convincing and consequently does not see any reason to deviate from its opinion expressed in the annex (points 7.1.1 and 7.1.2).

Claim 1 is thus directed to a **single entity**, namely a dispensing container.

The features in this claim relating to the **second entity** (cf. annex, point 7.1.1), namely the **dispensing assembly comprising a hub**, do not form part of the subject-matter defined by claim 1.

This assessment of the subject-matter of claim 1 is not in conflict with the decisions T 0455/92 and T 0194/99 cited by appellant 02. According to T 0455/92 the length and overall breadth of a covering for a pressed product has been considered sufficiently defined by its intended use and the size such pressed products normally have (reasons, points 2.2 and 2.3). According to T 0194/99 it is, in principle, "possible in a claim for a first entity to define certain characteristics of that entity as a function of characteristics of a second entity employed when using the first entity ...". It is further indicated that "A prerequisite is, however, that the second entity and its relevant characteristics as such, not their exact values, are unambiguously identified in the claim" (reasons, point 3).

In the present case neither the hub as second entity nor its cooperation with the container (first entity) are unambiguously defined since the feature of claim 1 relating to the relationship of the nozzle with the hub defines only that the nozzle is adapted to receive the hub in a mating relationship. This feature thus does not give a basis for certain characteristics of the container or its nozzle being defined as a function of the hub as second entity. The feature defining that the hub has a cavity does not help either since it likewise does not lead to the mating relationship between the nozzle and the hub being further defined.

2.4 Since the features relating to the hub do not form part of the subject-matter of claim 1 either directly or indirectly, since they do not contribute to the

definition of the container, the subject-matter of this claim concerns, as indicated in the annex

(i) a hermetically sealed, molded thermoplastic **dispensing container** which comprises

(ii) a **nozzle** unitary with the container and defining a dispensing aperture

(iii) a removable closure unitary with the nozzle occluding the aperture

(iv) a **resilient and compressible annular bead** which is provided extending outwardly about the periphery of the nozzle unitary therewith and spaced from the aperture.

The properties of the bead defined by feature (iv) appear to be the result of the material for / and the manufacturing process of the container as defined by feature (i).

3. *Disclosure of document D4*

3.1 D4 discloses, as indicated in the annex (points 7.2.1 and 7.2.2), with respect to the molded thermoplastic dispensing container of claim 1, a hermetically sealed, molded thermoplastic dispensing container 4 (page 8, lines 14 – 18; figures 1, 2) which comprises

a nozzle 12 unitary with the container and defining a dispensing aperture (page 8, line 34 – page 9, line 3; figures 1, 2, 3, 4),

a removable closure 6 unitary with the nozzle occluding the aperture (page 8, lines 14 – 26; figures 2, 3, 4) and

an annular bead 10 which is provided extending outwardly about the periphery of the nozzle unitary therewith and spaced from the aperture (page 8, line 32 – page 9, line 3; figures 1, 2).

3.2 Appellant 02 objects to the annular bead 10 being considered as resilient and compressible (feature (iv)). The argument based on "the conditions prevailing when the container is used together with a dispensing assembly" (letter dated 22 January 2013, first full paragraph of page 3) cannot be considered since, as indicated above, a dispensing assembly does not form part of the subject-matter of claim 1 and claim 1 furthermore is not directed to a use of such a combination.

The Board considers the argument that resiliency and compressibility concern two different requirements (letter dated 22 January 2013, second full paragraph of page 3) as holding true **per se**. Since, however, only these properties of the bead are referred to in claim 1 (feature (iv)) without further definition as to the resiliency on the one hand and the compressibility on the other, while also the shape and dimensions of the bead remain undefined, and its material is only referred to as thermoplastic, the material properties referred to by feature (iv) cannot be given any particular meaning.

Since the bead according to D4 is of – qualitatively similar shape and size and of the same material (page 7, lines 35 – 38) allowing its elastic radial deformation (page 10, lines 31, 32) its material properties cannot be seen as different from the ones according to feature (iv).

4. *Novelty*

4.1 Based on the above understanding of the subject-matter of claim 1 and of the disclosure of D4, the finding of lack of novelty in the impugned decision (reasons, point 3.0 i)) with respect to D4, is, as was indicated in the annex (points 7.4.1 and 7.4.2), correct.

Claim 1 as maintained

5. *Subject-matter of claim 1 as maintained*

5.1 As indicated in the annex (points 7.1.3 and 7.1.4) the subject-matter of claim 1 of the patent as maintained by the impugned decision relates to the use of a container (as defined by claim 1 according to the main request) together with a dispensing assembly comprising a hub, said hub including an inner surface defining a cavity.

Concerning this **use claim** it has not been disputed by appellant 01 that both the **features defining the dispensing container** (cf. point 2.4 above, features (i) to (iv)) **and those defining the hub** need to be taken into consideration, as well as the **features concerning the cooperation of these two elements**.

The **features concerning the hub** define that

(v) the hub includes an inner surface defining a cavity

and the **features concerning the cooperation of the container and the hub** define that

(vi) the **nozzle is adapted to receive the hub in a mating relationship**

(vii) the **diameter of the bead** in the region of engagement is **greater than the diameter of the cavity** included in the hub whereby

(viii) the **bead is compressed when the hub is received** over the bead and

(ix) the **bead exerts a sealing force against the inner surface of the hub in the region of engagement** between the hub and the bead

(x) to provide a liquid seal between the hub and the nozzle in the region of engagement.

5.1.2 Features (v) and (vi) define that in the dispensing assembly the nozzle is positioned within the cavity of the hub in a mating relationship.

As referred to in the annex (point 7.1.4) this mating relationship is defined as being between the bead (outer surface thereof) and the inner surface of the cavity of the hub.

The mating relationship is furthermore, as referred to by appellant 02 (letter dated 22 January 2013, point 1.2), such that "the bead is positioned within the hub, and ... provides a liquid seal between the hub and the nozzle".

6. *Public prior use "Thilo"*

6.1 Appellant 02 objected to the alleged public prior use "Thilo" (in the following referred to as the "Thilo"-container) on two accounts, as indicated in the annex (points 7.3.1 and 7.3.2). First, that it has not been proven that the "Thilo"-container has been made available to the public before the priority date of the patent in suit. Second, that the subject-matter of the "Thilo"-container is not relevant since the bead is at the end of the nozzle at the location of the dispensing aperture (cf. drawing no. 655-20/101 H). Further – concerning claim 1 of the patent as maintained – that no information is given concerning the cooperation of the container with a hub.

6.2 With respect to the public availability the Board indicated in the annex (point 7.3.2), that the circumstances referred to in the testimony of Mr. Hansen before the opposition division need to be considered. According to this testimony not only were 700 containers of the "Thilo" type ordered (protocol, page 12), the order no. 44/1/85 was confirmed, carrying the date 4 February 1985 (cf. annex A1), but also these containers came on the market. Further, the arguments of appellant 02 (grounds of appeal, point 2.1) have to be taken into account. Weighing the finding of the impugned decision that the prior use of the "Thilo"-

container was sufficiently proven against the non-specific reasons given by appellant 02 the Board concludes that there is no reason to evaluate the evidence differently from the impugned decision.

6.3 It is evident, i.a. from the fact that inventive step was not addressed in the annex, that the assessment of the relevance of the "Thilo"-container given in the preliminary opinion (annex, point 7.3.2), was one in the context of the examination of novelty. Concerning this examination the subject-matter of the "Thilo"-container needed only be analysed in view of establishing whether the subject-matter of claim 1 is distinguished therefrom or not.

6.3.1 In the context of the examination of inventive step, referred to in the letters of appellant 01 (point 1) and appellant 02 (point 3) both dated 22 January 2013, the subject-matter disclosed in connection with the "Thilo"-container needs to be established in more detail. The reason is that establishing one distinguishing feature may suffice for deciding on novelty, but need not suffice with respect to the examination of inventive step. For the latter all distinguishing features need to be established, including which effect is caused by them.

6.3.2 In that respect the prior public use ("Thilo"-container) discloses, as indicated in the decision under appeal (reasons, point 2.2) and corresponding to features (ii) and (iii), a thermoplastic dispensing container having a nozzle unitary with the container and defining a dispensing aperture (cf. drawing no. 655-20/101H). The container further comprises a resilient and

compressible (due to the material properties of the container) annular bead extending outwardly about the periphery of the nozzle and unitary therewith (corresponding to a part of features (iv)).

The bead is at the distal end of the nozzle (impugned decision, reasons point 2.2) and thus not spaced from the aperture as defined by the remainder of feature (iv).

6.3.3 Concerning this location of the bead the Board understands, contrary to appellant 01, the term "spaced" as referred to in feature (iv) of claim 1 to relate to a spacing in the axial direction of the nozzle and not one in radial direction. The latter is already given by part of feature (iv) according to which the bead extends outwardly about the periphery of the nozzle.

6.4 Concerning the objection of appellant 02 that with respect to the "Thilo"-container there is no disclosure of the cooperation of such a container with a hub in a dispensing assembly as referred to by feature (i), the Board considers the assessment of the impugned decision to be correct that the nozzle of this container is a conventional Luer-type fitting and the bead has been added at the distal end of the nozzle to improve the seal (reasons, points 2.2 and 3.7.2 ii)).

The Board considers, in line with the arguments of appellant 01, that the "Thilo"-container is part of a dispensing assembly comprising a hub including an inner surface defining a cavity. This fact is corroborated by the minutes of the witness hearing before the

opposition division (page 5, middle paragraph: standardized containers to be connected with Luer-type connectors; page 11, first paragraph: insertion of the nozzle into a Luer-type connector to obtain a press fit). See also the ISO-Standard D7 referred to in the impugned decision (reasons, point 3.7.2 i)).

It is thus known in connection with the "Thilo"-container that this container is used with a dispensing assembly comprising a hub with a cavity adapted to accommodate the nozzle such that a Luer-type fitting is obtained by insertion of the nozzle with the bead at its distal end into the cavity of the hub. The bead being resilient and compressible then cooperates, since it extends outwardly about the periphery of the nozzle, with the cavity of the hub as defined by features (vi) to (ix) resulting in the effect according to feature (x). As referred to in the decision under appeal the bead thus forms a seal with the hub in addition to the seal resulting from the Luer-type fitting between the nozzle and the hub.

7. *Novelty*

7.1 Novelty has been objected to by appellant 01 based on the understanding of feature (iv) that in connection with the term "space" it is not defined that the bead is spaced in axial direction from the aperture.

As indicated above (cf. point 6.3.3) the Board does not adopt this interpretation of feature (iv). It considers instead, in line with the argumentation of appellant 02, that the part of feature (iv) concerned defines an axial spacing of the bead from the aperture.

The subject-matter of claim 1 is thus distinguished from the "Thilo"-container as used in a Luer-type fitting with a hub by the part of feature (iv) according to which the bead is spaced from the aperture.

8. *Inventive step*

8.1 *Effect of the distinguishing feature / technical problem*

8.1.1 The patent in suit refers to a disadvantage of a known container of the kind concerned stating (paragraph [0004], cf. also paragraph [0019]): "Hermetically sealed-containers 10 produced by the so-called blow/fill/seal techniques such as, for example the blow/fill/seal techniques shown and disclosed in U.S. Patent No. 4,671,763 to Weiler have gained widespread acceptance in the pharmaceutical field. Such containers are formed between cooperating molds that are closed around an extended length of a parison. This fabrication process, while efficient, necessarily results in a finished container with a mold seam or parting line". Concerning containers manufactured in this manner it is indicated (paragraph [0005]): "The presence of such a seam on a dispensing nozzle is disadvantageous in applications where it is desired to mount a dispensing needle or spike on the nozzle because the seam may create a gap between mating surfaces through which liquid contents of the container can leak during the dispensing operation. It would thus also be desirable to provide a container with an improved nozzle that provides a liquid seal in the

region of the mold seam. The present invention provides such an improved nozzle on a dispensing container".

It is apparent that the improved nozzle which leads to the effect stated above is the one having a bead as defined by feature (iv) cooperating with the hub as defined by features (vi) to (x).

8.1.2 A particular further effect based on the distinguishing feature, namely that the bead is spaced from the aperture, is neither stated in the patent in suit nor is it derivable therefrom.

8.1.3 The problem underlying the subject-matter of claim 1 can therefore be derived from the above cited statements of the patent in suit: to "provide(s) ... an improved nozzle on a dispensing container".

This problem has been accepted by appellant 01 and it is in line with the one referred to by appellant 02 (cf. letter dated 22 January 2013; point 1.1 – page 3, first complete paragraph).

8.2 *Obviousness*

8.2.1 As a consequence of the above finding that the distinguishing feature does not have any further particular effect and the realization that the "Thilo"-container with its bead provided on its nozzle end also leads, in its use with a dispensing assembly, to the same effect of providing a liquid seal in the region of the mold seam, the latter solves the same problem as the use of the container defined by claim 1.

8.2.2 As a consequence the problem to be considered in the examination of inventive step, starting from the use of the "Thilo"-container with a dispensing assembly comprising a hub, needs to be reformulated in a less ambitious manner, namely to provide the container with an alternative nozzle.

8.2.3 The solution to this problem according to claim 1, namely to provide the bead spaced from the aperture, is based on an arbitrary measure, since, as indicated above, no particular other effect for the use of the container is associated with this spacing.

In other words: for the provision of a liquid seal it is of no influence at which axial position the bead is arranged on the nozzle. The distinguishing feature therefore cannot, either by itself or in combination with the remaining features of claim 1, be considered as contributing to inventive step.

The subject-matter of claim 1 of the patent as maintained thus does not involve an inventive step (Article 56 EPC).

Order

For these reasons it is decided that:

1. The appeal of the patent proprietor is dismissed.

2. The decision under appeal is set aside.

3. The patent is revoked.

The Registrar: The Chairman:

G. Nachtigall H. Meinders