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D E C I S I O N
of 29 November 2001

Case Number: T 0609/00 - 3.2.1

Application Number: 95925341.0

Publication Number: 0770020

IPC: B65D 41/06, B65D 55/02

Language of the proceedings: EN

Title of invention:
Combination of a container and a safety cap therefor

Applicant:
THERMAR CORPORATION

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56, 84

Keyword:
"Novelty (yes)"
"Inventive step (yes)"
"Claims - clarity (yes)"

Decisions cited:
-

Catchword:
-



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Boards of Appeal

Chambres de recours

Case Number: T 0609/00 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 29 November 2001

Appellant: THERMAR CORPORATION
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Representative: Grimm, Ekkehard, Dipl.-Phys.
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 25 November 1999
refusing European patent application
No. 95 925 341.0 pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: F. A. Gumbel
Members: J. Osborne
P. H. Mühlens

Summary of Facts and Submissions

- I. The appeal is directed against the decision of the Examining Division to refuse the application 95 92 5341.0 (EP-A-0 770 020) which was posted on 25 November 1999.
- II. The Notice of Appeal was received on 20 January 2000 together with payment of the appeal fee. The grounds of appeal were received on 20 March 2000.
- III. The following prior art documents were cited in the search report:

D1: US-A-4 091 948

D2: US-A-3 880 313

D3: US-A-4 637 519

D4: US-A-3 255 909

D5: US-A-4 645 088

D6: US-A-4 128 184.

The Examining Division refused the application on the ground of a lack of novelty of the subject-matter of Claim 1 then on file with respect to the disclosure of D1. During examination of the application the Examining Division had objected that Claim 1 lacked inventive step because a single feature which was considered to be novel with respect to D1 was considered to be disclosed in D2 for the purpose of solving the same problem as in the application in suit. The Examining

Division issued the decision under appeal when the single feature considered to be novel with respect to D1 subsequently was deleted by the applicant. The Examining Division indicated that it would maintain its objection of lack of inventive step for the case that the applicant were to re-introduce the feature. The Examining Division had also indicated during the examination procedure (but not in the decision) its opinion that objection arose under Article 84 EPC because the features of Claim 2 relating to the details of a cap removal prevention means were considered essential and therefore should be included in Claim 1.

IV. Upon appeal the appellant requested that the decision of the Examining Division be set aside and that a patent be granted on the basis of a new set of claims, an amended description and amended drawings filed with the grounds for appeal. In Claim 1 the appellant had re-introduced the feature whose deletion had resulted in the Examining Division's conclusion of a lack of novelty. In respect of inventive step the appellant essentially argued that according to D1 the extent of the tapered sealing surface is determined by its angle and by the thickness of the container wall, the end surface of which is essentially composed of the tapered sealing surface which abuts a sealing fin on the cap primarily in compression. According to D2 the resilient depending member fits within the end of the container and so is incompatible with a tamper evident seal mounted on the end surface of the container.

V. In communications pursuant to Article 12 RPBA the Board indicated its opinion that amendments made to Claim 1 and to the drawings offended the provisions of Articles 84 and 123(2) EPC but that the subject-matter

appeared to be patentable.

VI. With a letter dated 3 July 2001 the applicant filed further amendments to Claim 1, the description and the drawings and requested that a patent be granted on the basis of the following documents:

Claims: 1 to 6 filed with the letter of 3 July 2001, received 4 July 2001;

Description: Pages 1, 1a, 2 to 5 filed with the letter of 3 July 2001, received 4 July 2001;

Drawings: Pages 1/3, 3/3 filed with the letter of 5 February 2001, received 8 February 2001;
Page 2/3 filed with the letter of 3 July 2001, received 4 July 2001.

VII. Claim 1 filed with the letter of 3 July 2001 reads:

"The combination of a container (10) having a rigid side wall (15), a safety cap (11) having an outer skirt (13) for engaging the container, and a means (21,22) on said rigid side wall (15) cooperating with means (20) on said cap (11) for preventing said cap (11) from being removed from said container (10) without depression and rotation of said cap (11);

said cap (11) having a circumferential resilient depending member (14) spaced inwardly from said skirt;

said cap (11), member (14) and skirt (13) being of one piece construction;

said side wall (15) having an end and an externally tapered surface (35) extending from a smaller diameter (17) at said end to a larger diameter (18);

said side wall (15) internally engaging said resilient member (14) between said smaller diameter (17) and said larger diameter (18), said tapered surface (35) expanding said resilient member (14) to provide a bias on said cap in a direction of removal of said cap (11) and to provide sealing of said container (10);

characterised in that:

said end of said side wall (15) defines a surface (16) for mounting a tamper-evident seal; said resilient depending member (14) is arranged parallel to the longitudinal axis of said cap; and

said surface (16) for mounting a tamper-evident seal fits within and is spaced radially inward of said resilient member (14)."

Claims 2 to 6 define preferred embodiments of the subject-matter of Claim 1.

Reasons for the Decision

1. The appeal is admissible.
2. *Amendments*
 - 2.1 The Board is satisfied that Claim 1, the description and the drawings contain no additional matter in

comparison with the application as originally filed and so the provisions of Article 123(2) EPC are satisfied. In respect of the provisions of Article 123(2) EPC the Examining Division did not raise any

objection which remained at the time of issue of the decision under appeal. A detailed explanation of the amendments and their basis in the application as originally filed therefore may be dispensed with.

3. *Clarity*

3.1 The applicant contested none of the clarity objections raised by the Board. The Board is of the opinion that all have been overcome satisfactorily and so further explanation appears unnecessary in this respect.

3.2 The Examining Division's objection concerning a perceived lack of essential features in Claim 1 relates to the subject-matter of Claim 2. Although this objection did not feature in the decision to refuse, the applicant did not reply on this point during the procedure before the Examining Division and so the matter is left open. The Board therefore considers it necessary to explain why the objection is not considered to be valid. Claim 2 essentially specifies the design of the respective means on the cap and on the side wall for preventing removal of the cap from the container without depression and rotation of the cap. The essence of the invention, on the other hand, is a sealing arrangement employing a resilient depending member which performs a dual function in as far as it provides both a bias in respect of the depression of the cap and a seal against the tapering surface. The feature that the removal prevention means

require the cap to be depressed before it can be removed, which is included in Claim 1, is therefore essential. However, it is of no relevance in respect of the sealing arrangement how the removal prevention means ensure that the cap must be depressed before it can be removed and the applicant has the right to a fair degree of protection in respect of different designs of such means, which have no bearing on the invention.

4. *Novelty*

4.1 D1 discloses in the embodiment of Figures 5 to 7 the combination of a container 50 and a safety cap having an outer skirt for engaging the container. The side wall of the container comprises at its end a tapered sealing surface 51 which subtends an angle of less than 55° with the centre line of the container. The tapered sealing surface co-operates with a resilient depending member 14 which is arranged at an angle of 10° to 20° relative to the tapered surface and which therefore is not parallel to the longitudinal centre line. The subject-matter of Claim 1 therefore is novel with respect to the disclosure of D1.

4.2 D2 teaches that the container engages the outside of the depending inner member 28. D3, D4 and D5 all relate only to conventional screw caps and do not have the feature of the "means for preventing ... from being removed without depression and rotation". D6 discloses an arrangement similar to that discussed in respect of D1.

4.3 The subject-matter of Claim 1 is therefore novel with respect to all of the cited prior art (Articles 54(1),

(2) EPC).

5. *Inventive step*

5.1 The closest prior art is that known from D1 which discloses in the embodiment of Figures 5 to 7 the combination of a container 50 having a rigid side wall (implicitly), a safety cap (see Figure 6) having an outer skirt for engaging the container, and a means 52, 53 on the rigid side wall cooperating with means 54 on the cap for preventing the cap from being removed from the container without depression and rotation of the cap. The cap has a circumferential resilient depending member 14 spaced inwardly from the skirt, the cap, resilient depending member and skirt being of one piece construction (implicit from the figures; see also D6 column 1, lines 19 to 21). The end of the side wall has a surface formed by a "very small radius" (column 2, lines 30 to 35) and an externally tapered surface 51 extends from a smaller diameter at the end to a larger diameter. The side wall internally engages the resilient member between the smaller diameter and the larger diameter and the tapered surface expands the resilient member to provide a bias on the cap in a direction of removal of the cap and to provide sealing of the container (column 4, lines 51 to 55).

5.2 It follows that the subject-matter of Claim 1 in suit differs from that of D1 in that:

- the end surface is suitable for mounting a tamper-evident seal;
- the resilient depending member is arranged

parallel to the longitudinal axis of the cap; and

- the surface for mounting a tamper-evident seal fits within and is spaced radially inward of the resilient member.

Because, according to Claim 1, the end surface is radially inward of the resilient member, the area for mounting the tamper-evident seal is spaced from the resilient member. The parallelism of the resilient member to the axis reduces its radial extent and frees space within the cap to accommodate the combination of the tamper-evident seal and the resilient member. These differentiating features therefore together solve the problem of providing for a tamper-evident seal in addition to a member which can provide the bias without the need to significantly increase the diameter of the cap.

- 5.3 D2 employs a resilient member parallel to the longitudinal axis but in the preferred embodiment it fits inside the end of the container such that the arrangement is not suitable for the provision of a tamper-evident seal. Although in an alternative embodiment the resilient depending member is located outside of the end of the container, this increases the overall size of the combination of cap and container (column 4, lines 21 to 26) and so fails to solve the problem addressed by Claim 1. Moreover, D2 describes the alternative embodiment as less preferred, thereby discouraging the skilled person from adopting this arrangement. D3 discloses a tamper-evident seal in combination with a double seal including a lip 48 which seals against a radius 55 at the edge of the end face. The lip is angled relative to the longitudinal axis

and, being intended for use with a screw threaded cap, is not disclosed as being suitable for providing the bias. D4 discloses a lip arranged at an angle to the axis and which is not disclosed as being suitable to provide the bias feature. Suitability for a tamper-evident seal is not mentioned. D5 discloses a screw cap which comprises a seal 13 parallel to the longitudinal axis but the end of the bottle is not spaced radially inward thereof. Neither a tamper-evident seal nor the provision of a bias is mentioned. D6 corresponds to D1 except in respect of the construction of the cap in two pieces. It follows that none of the cited prior art discloses the above-mentioned differentiating features as a solution to the set problem.

- 5.4 The Board therefore concludes that the subject-matter of Claim 1 and as a result also of Claims 2 to 6 is not rendered obvious by the available prior art and so involves an inventive step (Article 56 EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to grant a patent on the basis of the following documents:

Claims: 1 to 6 filed with the letter of 3 July
 2001, received 4 July 2001;

Description: Pages 1, 1a, 2 to 5 filed with the letter of 3 July 2001, received 4 July 2001;

Drawings: Pages 1/3, 3/3 filed with the letter of 5 February 2001, received 8 February 2001;
Page 2/3 filed with the letter of 3 July 2001, received 4 July 2001.

The Registrar:

The Chairman:

S. Fabiani

F. Gumbel