

BESCHWERDEKAMMERN
DES EUROPÄISCHEN
PATENTAMTS

BOARDS OF APPEAL
OF THE EUROPEAN
PATENT OFFICE

CHAMBRES DE RECOURS
DE L'OFFICE EUROPEEN
DES BREVETS

A	X	B		C	
---	---	---	--	---	--

File Number: T 108/91 - 3.2.1
Application No.: 81 107 429.3
Publication No.: 0 048 472
Title of invention: Lockable closure for containers

Classification: B65D 41/18

D E C I S I O N
of 17 September 1992

Proprietor of the patent: Sears, Roebuck and Co.

Opponent: 01) Sears, Roebuck and Co.
02) Dijkstra Plastics B.V.
03) Kunststoffwerk Eugen Saier GmbH & Co.

Headword: Lockable closure/SEARS

EPC Articles 56, 69, 100(c), 123(2) and (3)

Keyword: "Amendment of granted claim to remove inconsistency with totality of disclosure (allowed) - Inventive step (no)"

Headnote follows



Europäisches
Patentamt

European
Patent Office

Office européen
des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Case Number : T 108/91 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 17 September 1992

Appellant :
(Proprietor of the patent)

Sears, Roebuck and Co.
Sears Tower
Chicago
Illinois 60684 (US)

Representative :

Griffin, Kenneth David
Saunders & Dolleymore
9 Rickmansworth Road
Watford
Hertfordshire WD1 7HE (GB)

Respondent :
(Opponent 02)

Dijkstra Plastics B.V.
Industriestraat 30
NL - 7482 BZ Haaksbergen (NL)

Representative :

't Jong, Bastiaan Jacobus
Octrooibureau Arnold & Siedsma
Sweelinckplein 1
NL - 2517 GB 's Gravenhage (NL)

Respondent :
(Opponent 03)

Kunststoffwerk Eugen Saier GmbH & Co.
W - 7297 Alpirsbach (DE)

Representative :

Patentanwälte Kohler-Schmid & Partner
Ruppmannstr. 27
W - 7000 Stuttgart 1 (DE)

Decision under appeal :

Decision of Opposition Division of the European Patent Office dated 20 September 1990, and issued in written form on 28 November 1990, revoking European patent No. 0 048 472 pursuant to Article 102(1) EPC.

Composition of the Board :

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

Summary of Facts and Submissions

- I. The Appellants are the proprietors of European patent No. 0 048 472 which was granted with effect from 15 January 1986 on the basis of European patent application No. 81 107 429.3 and revoked by a decision of the Opposition Division dated 20 September 1990, and issued in written form on 28 November 1990.
- II. The patent had been opposed by the Appellants themselves and by the Respondents (Opponents 02 and 03) on the basis that its subject-matter lacked novelty and/or inventive step with respect to the state of the art (Article 100(a) EPC). The Respondents also put forward the ground that the subject-matter of the patent extended beyond the content of the application as filed (Article 100(c) EPC).

The following state of the art was relied upon:

- (D1) FR-A-2 377 333,
- (D2) GB-A-1 438 136,
- (D3) Information sheet "Superfos Container".

Prior use of the container-closure arrangements "H50/DH50" and "H100/DH100" manufactured by the Opponents 03 (Saier).

- III. In the contested decision it was held that the subject-matter of the amended main claim filed during the opposition proceedings lacked inventive step with respect in particular to the Saier container-closure arrangements, the public prior use of which had been acknowledged by the Appellants.
- IV. An appeal against this decision was filed on 25 January 1991, the appeal fee being paid on the same day.

The Statement of Grounds of Appeal, accompanied by a new main claim, was received on 30 March 1991.

- V. In a communication of the Board dated 7 April 1992 pursuant to Article 11(2) RPBA various objections to the new claim filed with the Statement of Grounds were made under Articles 84 and 123 EPC. As far as the assessment of inventive step was concerned it was indicated that the arrangement shown in Figures 20 and 21 of document D2 would seem to represent the most appropriate starting point.
- VI. Oral proceedings were held on 17 September 1992. At the oral proceedings the Appellants submitted a new Claim 1 on the basis of which maintenance of the patent was requested. This claim is worded as follows:

"A container-closure arrangement comprising a container (11) and a closure (10,50,60,70) for closing the opening of the container (11), said opening being limited by a wall (13) of the container (11), said wall of the container including a circumferential and outwardly disposed annular projection (12), the closure (10,50,60,70) including at least one essentially annular portion (14) adapted to contact a portion (15) of the annular projection (12) of the container (11) and including a circumferential extension (18,51,53,71,72) adapted to be moved in relation to said annular portion (14) of the closure (10,50,60,70), shoulder means (16,52) being adapted to pivot about the annular projection (12) of the container (11), said shoulder means (16, 52) being integral with and extending from said annular portion (14) of said closure (10,50,60,70), said shoulder means (16,52) being movable into and out of locking engagement with the annular projection (12) of the container (11), said circumferential extension (18,51,53,71,72) forming

deflectable bending means being integral with and extending from said shoulder means (16,52) said deflectable bending means (18,51,53,71,72) co-operating with said shoulder means (16,52) to provide a mechanical leverage system (12/14/15,52/18,51,53,71,72) for pivoting said shoulder means (16,52) about the annular projection (12) of the container (11), said mechanical leverage system being adapted to move said shoulder means (16,52) into and out of locking engagement with the extended end of the annular projection (12) of the container (11), said deflectable bending means (18,51,53,71,72) including an annular continuous portion normally retaining said shoulder means (16,52) in either an unlocked or locked position out of or in engagement with the annular projection (15) of the wall of the container (11), characterized in that

the circumferential and outwardly disposed annular projection (12) is a downwardly extending lip, that said mechanical leverage system (12/14/15,52/81,51,53,71,72) is arranged and adapted for pivoting said shoulder means (16,52) about the end of said downwardly extending lip (12), the area of pivoting being where said shoulder means extends from said annular portion, from an upper, unstressed, unlocked position to a lower, locked position, as said bending means (18) is deflected from its upper, unstressed, unlocked position to its lower, unstressed, locked position, and that the shoulder means (16) is retained in a locked position in engagement with the annular lip (12)."

As an auxiliary request the Appellants proposed clarifying the claim of the main request in the sense that contact between the shoulder means and the end of the downwardly extending lip was defined.

VII. The arguments of the Appellants in support of their requests can be summarised as follows:

A. It was clear from a reading of the patent specification as a whole that an essential feature of the invention was the movement of the deflectable bending means between two stable unstressed positions, in the first of which the closure was unlocked and in the second locked, by virtue of the shoulder means, to the container. In the course of the examination proceedings the second, locked, position had unfortunately been referred to in terms of a substantially unstressed position of the shoulder means rather than the deflectable bending means.

It was however evident from the patent specification that the shoulder means themselves were not unstressed in the locked position since in those embodiments where the shoulder means were constituted by a continuous annulus this annulus had a smaller diameter in the locked position than in the unlocked position and must therefore be under hoop compression stress, and in all embodiments there was a reaction stress in the shoulder means due to the closure being pulled down onto the annular projection of the container.

Claim 1 had now been amended to remedy the poor choice of words made in the examination proceedings and accurately to reflect what was actually disclosed in the patent specification and the application documents as originally filed. Such an amendment did not contravene Article 123(3) EPC as the extent of protection conferred by a claim was not determined by the strict, literal meaning of its wording.

- B. Public prior use of the Saier container-closure arrangements was not in itself disputed. What was disputed, however, was that such arrangements had in practice been used to any significant extent in a manner which was contrary to what was intended, that is with the tear-off security band left in place and functioning as a releasable locking element in an analogous way to the mechanical leverage system of the invention claimed. Even if this were the case then in any event it was evident that in a raised, unlocked, position the security band would be under a very significant tension stress since it could not adopt the same diameter it had in the locked position.
- C. The container-closure arrangement shown in Figures 20 and 21 of document D2 indeed comprised an over-centre mechanism similar to that used in the claimed invention but which served a different purpose, namely to latch the closure against unauthorised opening by a child. To this end the deflectable bending means were hinged to the annular portion of the closure at a point spaced from the edge of the annular projection of the container such that the shoulder means depending from the bending means would be swung in and under the projection as the bending means are moved from an upper position to a lower position. There was no suggestion that thereby the shoulder means would act to pull the closure down firmly against the container and indeed this would run against the whole teaching of document D2 since it would reduce the force required to move the bending means from the latched position to the unlatched position.

According to the claimed invention, however, the shoulder means pivot about the end of the annular projection of the container and the area of pivoting was where the shoulder means extends from the annular portion of the closure, and these features, together with the feature that the annular projection is a downwardly extending lip providing a clearly defined pivot point, combined to ensure that the closure was firmly pulled down onto the container and was exceptionally resistant to internal pressure. The latter effect was in particular a consequence of the shortness of the lever arm between the point of action of the end of the downwardly extending lip on the shoulder means and the pivot point of the mechanical leverage system.

The claimed arrangement has been the subject of considerable commercial success as witnessed by a licence taken out by one of Europe's leading manufacturers in the field. This, as well as imitation by the Respondents, were further pointers to an inventive step.

The purpose of the proposed amendment according to the auxiliary request was to make it clear that the end of the downwardly extending lip acted as a pivotal abutment for the shoulder means.

VIII. The arguments of the Respondents in reply can be summarised as follows:

- A. The statement in granted Claim 1 that the shoulder means were retained in a substantially unstressed locked position imposed an unequivocal and technically meaningful restriction on the extent of protection conferred by the claim. The deletion of

this feature therefore contravened the requirement of Article 123(3) EPC and could not be allowed.

- B. Statutory declarations of three separate witnesses had been filed explaining how the Saier container-closure arrangements had, before the relevant application date, been used by third parties in a way corresponding in essence to that of the assembly claimed. The Appellants had not put forward any good reason for calling the veracity of these declarations into question. Furthermore, they had, before the Opposition Division, accepted the prior use to the full extent alleged by the Respondents.

As explained in the declarations, users of the Saier container-closure arrangements had noted that it was not necessary to tear off the security band and had instead inverted this about its narrow connection point to the closure in order to allow removal of the closure from the container. On replacement of the closure the security band was then turned back down to re-engage the annular projection on the container and lock the closure in place. The argument of the Appellants that in its inverted position the security band would not be unstressed was irrelevant as the deflectable bending means of the closure disclosed in the patent specification was also not unstressed in both of its locked and unlocked positions. This was evident from Figures 2 and 3 of the patent specification where the bending means were shown as having different diameters in their two end positions and also from the fact that in their locked position the bending means had to maintain the stress in the shoulder means. In other words all that was meant in this context by "unstressed" was "stable", and there was no doubt that the security band of the prior used

closure was stable in its inverted, unlocked, position.

The only distinction between the claimed container-closure arrangement and the prior used arrangements was that the annular projection on the container was a downwardly extending lip. Containers with such lips around their upper open end were however well known, as acknowledged by the Appellants, and shown for example in document D3. It could not be seen in what way a snap-over locking ring would operate differently with such a lip as opposed to a radially extending projection.

- C. The Appellants had attempted to show that the snap-over locking ring shown in Figures 20 and 21 of document D2 functioned in a different way to the deflectable bending means of the arrangement claimed in that it was merely a "latch" and would not firmly secure the closure to the container in the event of internal pressure therein. This could not be accepted. The shoulder means were pivoted about the end of the annular projection on the container in the same way as in the arrangement claimed and since the closure was intended to be sealed against the container it was evident that the shoulder means were intended to pull the closure down onto the container neck. The detailed presentations of the Appellants with regard in particular to the exact point of pivoting and the lengths of the lever arms involved were not reflected in the wording of Claim 1 and moreover found no support in the disclosure. Again, the only real distinction of the claimed arrangement over that of document D2 was the provision of an annular projection in the form of a downwardly extending lip, the same comments applying here as

were made with respect to the prior used Saier container-closure arrangements.

In view of the above the Respondents requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal complies with the requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC; it is therefore admissible.
2. Admissibility of amended Claim 1
 - 2.1 In order to facilitate an understanding of the import of the proposed amendments it is necessary first of all to discuss briefly how the container-closure arrangement disclosed is structured and functions.

The closure is formed adjacent its rim with a downwardly facing annular channel with receives the rim of the container, the latter being formed with an outwardly and downwardly extending annular lip. The outermost section of the annular channel, the "shoulder means" in the terms of Claim 1, is joined via an area preferably of reduced thickness to the body of the closure, this area acting as an integral hinge which allows pivoting of the outermost section of the channel about the end of the downwardly extending lip of the container. This pivoting is effected by means of a frusto-conical ring, the "deflectable bending means" of Claim 1, which extends from the outermost section of the annular channel or shoulder means and which can be snapped over from an upwardly facing position, where the closure is free for removal from the container, and a downwardly facing position, where the

closure is locked by the outermost section of the annular channel onto the container.

2.2 It is clearly expressed in the original disclosure that the deflectable bending means are unstressed in both the locked and unlocked positions thereof. On the other hand there is nothing in the original disclosure which specifically suggests that the shoulder means are also unstressed in their locked position. Indeed, having regard to the technical considerations involved, this cannot be the case. Thus, in the majority of the embodiments disclosed the shoulder means are constituted by a continuous annulus which in its locked position has a smaller diameter than in its unlocked position. This annulus must therefore be under a hoop compression stress in the locked position. Furthermore, and this applies to all embodiments disclosed, it would run against the implicit technical objective of firmly securing the closure to the container if the shoulder means were not under some stress through their engagement with the end of the lip of the container.

Accordingly it can be seen that the feature included in Claim 1 by amendment during the examination proceedings that "the shoulder means is retained in a substantially unstressed locked position in engagement with the annular lip" effectively describes a container-closure arrangement which although technically feasible in itself does not actually correspond to what was disclosed. This amendment consequently offended against the requirement of Article 123(2) EPC that an application may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed.

2.3 The wording of Article 123(2) EPC is reflected in Article 100(c) EPC according to which it is a ground of

opposition that the subject-matter of the patent extends beyond the content of the application as filed.

It has been established above that the statement in granted Claim 1 that the shoulder means is substantially unstressed in its locked position is not derivable from the original disclosure, so that the ground of opposition under Article 100(c) would hold good against any claim in which this feature was retained. On the other hand deletion of this statement would at least at first sight appear to run foul of Article 123(3) EPC according to which the claims of the patent may not be amended during opposition proceedings in such a way as to extend the protection conferred.

A number of earlier decisions of the Boards of Appeal have considered what has been termed the "conflict" between the provisions of Articles 123(2) and (3) EPC but which, having regard to what is said above, can perhaps be more accurately described as the impasse created by the combined operation of Articles 100(c) and 123(3) EPC.

In Decision T 231/89, Headnote published in OJ EPO 06/1992, it was found that the offending feature in granted Claim 1, i.e. that a torsion spring was "flat", was devoid of technical meaning in its context, did not therefore in fact impose any limitation on the extent of the protection conferred by the claim, and could accordingly be deleted without infringing Article 123(3) EPC.

The offending feature considered in Decision T 938/90 of 25 March 1992, not to be published, which was the temperature at which a melt viscosity was determined, was however considered to be essential to an adequate definition of the claimed invention, the introduction of

this feature during examination proceedings having been necessary to overcome an objection of insufficiency under Article 83 EPC. Accordingly, deletion of the feature was not allowed and the decision of the Opposition Division to revoke the patent on the ground of opposition under Article 100(c) EPC was confirmed.

The present case differs significantly from both of the situations considered above, which may be thought of as marking the ends of the spectrum of type of inadmissible amendment made during examination proceedings. On the one hand it cannot be said that the statement in granted Claim 1 of the contested patent that the shoulder means is retained in a substantially unstressed locked position is technically meaningless in the context of the claim, indeed as indicated above, the skilled man would not on a reading of the claim alone have reason to doubt that the container-closure arrangement set out there was a technically feasible construction, although he would perhaps ask himself why the unstressed locked position was desirable. On the other hand there is no suggestion that the feature involved was included in any way to remedy a deficiency of insufficiency or that the attribution of the unstressed condition to the shoulder means was essential for the assessment of novelty or inventive step. The latter is evident from the fact that the offending amendment of Claim 1 occurred while attempting to put the claim into a proper two-part form after the Examining Division had already indicated that its subject-matter was patentable.

It must also be noted that in Claim 1 according to the requests of the Appellants the offending feature has not simply been deleted but has been replaced in effect by the feature that the bending means are unstressed in their lower, locked position. In other words an inaccurate

technical statement in granted Claim 1, which is evidently inconsistent with the totality of the disclosure of the patent, has been replaced by an accurate statement of the technical features involved.

The Board takes the view that this amendment does not infringe Article 123(3) EPC. This follows from a consideration of Article 69(1) EPC and the associated Protocol on its interpretation which set out the way in which the extent of protection conferred by a patent is to be determined, in particular how the description and drawings of the patent should be drawn upon to interpret the claims. In the present case it becomes immediately apparent, once recourse is had to the description and drawings of the patent specification, that what is defined in granted Claim 1 could not be that for which protection was sought and that the intended meaning must have been the equivalent of what is stated in this respect in the amended claim. In other words, on a fair interpretation of the claim in the light of the totality of disclosure of the patent the protection conferred by it has not in fact been extended.

2.4 This approach to the admissibility of a broadening amendment to a granted claim concurs in principle with that taken in an earlier decision of this Board, T 371/88, OJ EPO 1992, 157 in which the deletion of a feature from granted Claim 1 which excluded one of the embodiments disclosed was allowed. In the present case, as is apparent from what is said above, the offending feature in granted Claim 1 effectively excluded not one but all of the embodiments disclosed.

2.5 The amended Claim 1 according to the main and auxiliary requests of the Appellants is also not open to any objection under Article 123(2) EPC as its features can all

be derived from the original disclosure, particularly when reference is made to the drawings. Since the admissibility of amended Claim 1 in this respect was not disputed by the Respondents further detailed explanations on this point are unnecessary.

3. Novelty and inventive step

3.1 From the production drawing 69-030/1a relating to the Saier DH100 closure it can be seen that the tear-off security band is joined to the skirt of the closure via a narrow neck which forms a tearing line. Having regard to the thinness of this neck and the dimensions of the band the Board accepts as a technical fact that, as an alternative to tearing off the band, it would have been possible to move the band from its normal downwardly facing position into a raised position, the neck acting thereby as a hinge, and that by so doing the closure would be freed from locking engagement with the annular projection around the neck of the container and could be removed therefrom. After replacement of the closure the band could then be moved back into its normal position to re-secure the closure.

The Board also accepts, as stated in the statutory declarations of Messrs Saier, Bartsch and Schatz, that this alternative way of using the known container-closure arrangement was actually put into practice by a significant number of customers, before the relevant filing date of the contested patent, so that knowledge of this modality was in the public domain.

However, it is also clear from drawing 69-030/1a that on movement of the security band upwardly its upper edge would come into abutment with the skirt of the closure and prevent it reaching a position in which it had the same

diameter as in its normal downwardly facing position. In other words, in its raised position the band will clearly be under significant stress.

The requirement of present Claim 1 that the deflectable bending means (the security band) are unstressed in both their upper, unlocked, position and their lower, locked position is therefore not met by the prior used Saier container-closure arrangements. The Respondents have argued in this respect that all "unstressed" can be taken to mean is "stable" since the bending means actually disclosed in the patent specification are not unstressed in the locked position thereof. They derive this view in particular from Figures 2 and 3 where the bending means are shown as having a larger diameter in the locked position than in the unlocked position and argue that this is a necessary corollary to the fact that the shoulder means are not unstressed in the locked position. In the view of the Board, however, Figures 2 and 3 of the patent specification must be considered as being somewhat schematic with regard to the final positions taken up by the bending means in their locked and unlocked positions, particularly when account is taken of the detailed description of Figures 9 to 11 explaining how the bending means move from their upper position to their lower position and have the same diameter in each. Furthermore, the relative dimensions and the arrangement of the shoulder means and bending means are such that a significant stress in the shoulder means would not necessarily be associated with a significant stress in the bending means so that these can indeed to all extents and purposes be considered as being unstressed in the locked position. Accordingly, this feature of present Claim 1 provides a significant distinction over the prior-used Saier container-closure arrangements and the arguments of the Respondents to the question of inventive step with

respect to this prior use, which are based on the premise that the only distinction is the downwardly facing lip on the container, must fail.

3.2 Document D2 is in general concerned with childproof safety closures for containers. In the arrangement shown in Figures 20 and 21 the closure comprises an outwardly flared depending skirt the annular outer portion of which is connected to the inner portion by an area of reduced thickness that constitutes an integral hinge. The outer portion of the skirt is provided adjacent the area of reduced thickness with a number of spaced depending teeth. To secure the closure on the container the outer portion of the skirt is snapped over-centre around the hinge to bring the teeth under a radially extending annular projection adjacent the neck of the container. The outer portion of the skirt has substantially the same diameter in both its upwardly facing position, in which the closure is released for removal, and its downwardly facing position, in which the closure is secured to the container, so that this portion of the skirt can be seen to be unstressed in both these positions. In the second position of the closure a groove on the underside of its top surface receives and seals against the neck of the container.

The Appellants have attempted to draw a significant distinction between the closure mechanism described above and that defined in present Claim 1 in that, as they maintain, there is a qualitative difference between the "latching" of the closure proposed in document D2 and the "locking" of the closure achieved by the claimed arrangement. In their view this locking is obtained by the closure being very firmly pulled down onto the container neck by the shoulder means through the over-centre action of the bending means, whereas in the prior art arrangement the latching teeth do not act to pull down the closure on

to the container at all. The pulling down action of the shoulder means results from the fact that they pivot about the end of the downwardly extending lip on the container and that the area of pivoting is where the shoulder means extend from the annular portion of the closure. These features combine to form a mechanical leverage system with a high lever ratio so that the force applied to the bending as it is moved from the unlocked to the locked position is magnified several times at the shoulder means. In contrast, they argue, the outer portion of the skirt of the closure according to document D2 merely hinges with respect to the inner portion so that it cannot be said to pivot about the end of the annular projection on the container. Furthermore the hinge point is not where the latching teeth extend from the outer portion of the skirt. As a result of these factors the latching teeth merely slide under the annular projection on the container without forcefully engaging it.

The Appellants are of the opinion that the reference in Claim 1 according to the main request to the shoulder means pivoting about the end of the downwardly extending lip is clear in its own right as meaning that the end of the lip contacts the shoulder means and acts as an abutment around which the pivoting takes place. The proposal according to the auxiliary request is intended to clarify this unequivocally.

The arguments of the Appellants as presented above are to some extent superficially attractive. The Board is however of the opinion that the particular effects they refer to firstly do not result from the features specified in Claim 1 according to either the main or auxiliary requests and secondly are not clearly supported by the original disclosure. From the latter it can merely be seen that as the bending means and shoulder means are moved from their

unlocked position to their locked position by deflection about the narrowed cross-section connecting them to the annular portion of the closure, which is substantially coincident with the level of the end of the downwardly extending lip of the container, then the shoulder means will come into contact at some point with the bottommost surface of the end of the downwardly extending lip of the container. This is in effect all that is said in this respect in Claim 1 according to both requests. There is nothing in the original disclosure which can be seen as referring to a strong pull-down action of the shoulder means during this movement.

Furthermore, the Board is not satisfied that the portrayal of the state of the art according to document D2, and the distinctions drawn between this and the claimed arrangement, are consistent with the technical facts. Thus in both the known and claimed arrangements the shoulder means are connected to the adjacent annular portion of the closure by an area of reduced thickness that constitutes the "area of pivoting" defined in present Claim 1. As shown in document D2 this area of pivoting lies closely adjacent the end of the annular projection on the container so that the shoulder means (the latching teeth) can be seen to pivot thereabout. The disposition of the latching teeth with respect to the area of pivoting and the annular projection is such that contact between the latching teeth and the projection during pivoting of the teeth to secure the closure is inevitable, such contact being a prerequisite if the seal provided between the closure and the container neck is to function. It cannot be accepted, as proposed by the Appellants, that such contact would significantly reduce the force needed to snap over the closure mechanism into its unlocked position and therefore be undesirable.

It follows from the above that the only tangible technical distinction between the prior art according to document D2 and the subject-matter defined in Claim 1 according to both the main and auxiliary requests of the Appellants is that in the latter the annular projection on the container is in the form of a downwardly extending lip. The Appellants have argued that this feature has an important contribution to make to the functioning of the closure mechanism in that the end of the lip provides a well-defined point of engagement for the shoulder means. The Board is however not convinced that a downwardly extending lip is to any extent better in this respect than the radially projecting flange shown in document D2. The Appellants have also argued during the course of the appeal proceedings that the space between the downwardly extending lip and the wall of the container allows the shoulder means to pivot past the horizontal into this space to achieve even more secure locking of the closure. However, Claim 1 is wholly silent as to the degree of pivoting of the shoulder means. Furthermore, in the embodiment of Figures 1 to 3 it can be seen that the shoulder means in fact come to rest with their surface extending horizontally.

Accordingly, on an objective basis, the only technical problem that can be recognised as being solved in relation to the closest state of the art by the claimed subject-matter is the provision of a container-closure arrangement with an alternative form of annular projection on the container with which the snap-over locking mechanism of the closure is to cooperate.

As conceded by the Appellants it is well known to provide a container with an annular projection around its neck in the form of a downwardly extending lip, see for example document D3. As shown in this document the end of the lip

cooperates with an internal ridge on the depending skirt of a closure to provide a snap fit. The skilled man would recognise that a container of this form can be combined with a closure of the general form disclosed in document D2 without the need for any significant modification of the principles of operation of the closure. Accordingly, the Board comes to the conclusion that the subject-matter of Claim 1 according to the main and auxiliary requests of the Appellants lacks inventive step (Article 56 EPC).

3.3 In these circumstances the subject-matter of dependent Claims 2 to 11 need not be considered.

Order

For these reasons, it is decided that:

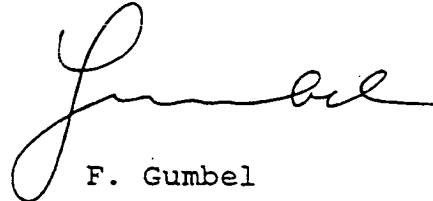
The appeal is dismissed.

The Registrar:



S. Fabiani

The Chairman:



F. Gumbel