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Datasheet for the decision of 21 May 2008

Case Number: T 0917/06 - 3.2.07

Application Number: 03008458.6

Publication Number: 1325782

IPC: B05B 7/04

Language of the proceedings: EN

Title of invention:
Improved flat fan spray nozzle

Applicant:
BETE FOG NOZZLE, INC.

Headword:
-

Relevant legal provisions:
EPC Art. 56, 84, 123(2)
EPC R. 115(2)
RPBA Art. 13(1), 15(3)

Relevant legal provisions (EPC 1973):
-

Keyword:
"Main request - lack of inventive step"
"Auxiliary requests I, II - not admitted"
"Decision partially based on a new objection in the absence of the Appellant at the oral proceedings"

Decisions cited:
T 1704/06, T 0602/03

Catchword:
See points 1 and 4

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0917/06 - 3.2.07

D E C I S I O N
of the Technical Board of Appeal 3.2.07
of 21 May 2008

Appellant: BETE FOG NOZZLE, INC.
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Greenfield
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Representative: Richter, Werdermann, Gerbaulet & Hofmann
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 24 November 2005 refusing European application No. 03008458.6 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: H. Meinders
Members: H.-P. Felgenhauer
E. Dufrasne

Summary of Facts and Submissions

I. The appeal lies from the decision of the examining division refusing European patent application 0 300 8458.6 under Article 97(1) EPC 1973 for lack of inventive step (Article 56 EPC).

II. The Claims 1 according to the main request and auxiliary requests I and II, all filed with letter dated 21 April 2008, read as follows:

a) main request

"1. A nozzle (10) for mixing a liquid (1) with a gas (g), comprising at least one inlet conduit (12,14) for introducing the liquid and gas into the nozzle (10); a mixing chamber (50) coupled in fluid communication with at least one inlet conduit (12, 14) for receiving and mixing the liquid and gas; a liquid atomizer (18,100) coupled in fluid communication between the at least one inlet conduit (12, 14) and the mixing chamber (50) for atomizing the liquid flowing through the at least one inlet conduit (12, 14) and discharging the atomized liquid into the mixing chamber (50); and a plurality of orifices (19) angularly spaced relative to each other about an axis (a) of the mixing chamber (50) within an end portion (58) of the nozzle (10) and coupled in fluid communication with the mixing chamber (50), wherein the axis (a) of the end portion of the nozzle substantially lies within a plane (X-Z), a first group of orifices (19) are located on one side of the plane (X-Z), and a second group of orifices (19) are located on another side of the plane (X-Z) relative to the first group of orifices (19), characterized in that the

axes (m to t) of the orifices (19) are each oriented at an acute angle of incidence with respect to the plane (X-Z) and intersect said plane (X-Z) along an elongated target (17) substantially lying in said plane (X-Z); and further characterised in that each orifice (19) is coupled in fluid communication with the mixing chamber (50) and is contiguous with a peripheral surface (71) defining the mixing chamber for receiving peripheral fluid flow from the chamber, the mixing chamber (50) extending between the liquid atomizer (18, 100) and the plurality of orifices (19) is axially elongated such that a length of the mixing chamber (e) is greater than a diameter (d) of the mixing chamber for further atomizing the liquid and mixing the liquid and gas prior to discharging the liquid-gas mixture through the plurality of orifices (19), the orifices (19) are angled radially outward from the axis (a) with respect to the plane (X-Z) to produce a fan pattern of predetermined width (w) along the target (17) and prevent the trajectories of the spray jets from intersecting each other, and the angles of the orifices (19) with respect to the plane (X-Z) outwardly increase as the orifices are disposed further from the axis (a) such that the spray jets (n-s) are substantially equally spaced relative to each other along the target (17)."

b) auxiliary request I

"1. A nozzle (10) for mixing a liquid (1) with a gas (g), comprising
at least one inlet conduit (12, 14) for introducing the liquid and gas into the nozzle (10);

a mixing chamber (50) coupled in fluid communication with at least one inlet conduit (12, 14) for receiving and mixing the liquid and gas; and

a plurality of orifices (19) angularly spaced relative to each other about an axis (a) of the mixing chamber (50) within an end portion (58) of the nozzle (10) and coupled in fluid communication with the mixing chamber (50), wherein the axis (a) of the end portion of the nozzle substantially lies within a plane (X-Z), a first group of orifices (19) are located on one side of the plane (X-Z), and a second group of orifices (19) are located on another side of the plane (X-Z) relative to the first group of orifices (19),

characterized in that the axes (m to t) of the orifices (19) are each oriented at an acute angle of incidence with respect to the plane (X-Z) and intersect said plane (X-Z) along an elongated target (17) substantially lying in said plane (X-Z); and

further characterized by at least one vane located between the inlet conduit (12) and the mixing chamber (50) and extending transversely relative to an elongated axis (a) of the inlet conduit (12) for receiving fluid from the inlet conduit (12) and creating a swirling annular flow, and defining at least a portion of an aperture (128) in an approximately central portion thereof for receiving a portion of the liquid and gas from the inlet conduit (12) and creating a substantially axial flow, and for introducing the swirling annular flow and axial flow into the mixing chamber (50) for mixing and (correctly: an) annular and axial flows; and wherein

the axes (m to t) of the orifices (19) are each fixedly oriented and further characterised by a liquid atomizer (18, 100) coupled in fluid communication between the at least one inlet conduit (12) and the mixing chamber (50) for atomizing the liquid flowing through the at least one inlet conduit (12) and discharging the atomized liquid into the mixing chamber (50), and wherein the mixing chamber (50) extending between the liquid atomizer (18, 100) and the plurality of orifices (19) is axially elongated such that a length of the mixing chamber (e) is greater than a diameter (d) of the mixing chamber for further atomizing the liquid and mixing the liquid and gas prior to discharging the liquid-gas mixture through the plurality of orifices (19), and wherein

the liquid atomizer (100) may be a tubular unitary body similar to the liquid input conduit (12) having an outlet end with a central outlet orifice (110) of cylindrical configuration which extends through the outer end wall (111) thereof and intersects with conical surface (112), which constitutes the outlet wall of an outlet chamber (114), and wherein the outer end wall (111) radially flares from the longitudinal axis of a spray head (16)."

c) auxiliary request II

"1. A nozzle (10) for mixing a liquid (1) with a gas (g), comprising

at least one inlet conduit (12, 14) for introducing the liquid and gas into the nozzle (10);

a mixing chamber (50) coupled in fluid communication with at least one inlet conduit (12, 14) for receiving and mixing the liquid and gas; and

a plurality of orifices (19) angularly spaced relative to each other about an axis (a) of the mixing chamber (50) within an end portion (58) of the nozzle (10) and coupled in fluid communication with the mixing chamber (50), wherein the axis (a) of the end portion of the nozzle substantially lies within a plane (X-Z), a first group of orifices (19) are located on one side of the plane (X-Z), and a second group of orifices (19) are located on another side of the plane (X-Z) relative to the first group of orifices (19),

characterized in that the axes (m to t) of the orifices (19) are each oriented at an acute angle of incidence with respect to the plane (X-Z) and intersect said plane (X-Z) along an elongated target (17) substantially lying in said plane (X-Z); and

further characterized by at least one vane located between the inlet conduit (12) and the mixing chamber (50) and extending transversely relative to an elongated axis (a) of the inlet conduit (12) for receiving fluid from the inlet conduit (12) and creating a swirling annular flow, and defining at least a portion of an aperture (128) in an approximately central portion thereof for receiving a portion of the liquid and gas from the inlet conduit (12) and creating a substantially axial flow, and for introducing the swirling annular flow and axial flow into the mixing chamber (50) for mixing and (correctly: an) annular and axial flows; and

further characterized in that the orifices (19) are interconnected by a U-shaped or V-shaped groove or channel (80) that is inscribed on an outer surface (81) of the spray head (16)."

III. In the impugned decision the following documents have been considered

D1: US-A-5 240 183

D2: US-A-4 014 470

D3: DE-A-25 36 883.

IV. According to the impugned decision the subject-matter of claim 1 underlying this decision has been found as not involving an inventive step in view of documents D1 and D3. D1 has been considered as disclosing the structure of a nozzle of the kind concerned, and D3 as disclosing the arrangement of orifices as further defined in claim 1.

V. The appellant (applicant) requests that the decision under appeal be set aside and the patent be granted according to claims 1 - 14 of the main request or auxiliarily according to claims 1 - 13 or claims 1 - 14, filed respectively as auxiliary requests I and II, all requests filed with letter dated 21 April 2008.

Its arguments in the grounds of appeal can be summarised as follows:

Claim 1 according to the then main request, filed with the grounds of appeal, concisely defines the features enabling the nozzle to produce a flat fan spray pattern of uniform and evenly distributed material along the target.

With the nozzle according to D1 a more complete mixing of various gas and liquid combinations and generation of finer spray droplets is sought for. To achieve this effect D1 is explicit in its teachings concerning the location of the spray orifice(s) on the end portion of the nozzle.

Differently to D1 document D3 is not directed to a spray nozzle for mixing a liquid and a gas but rather directed to a nozzle for spraying urethane foam. D3 does not suggest changing of the specific teachings of D1. Consequently combined consideration of documents D1 and D3 does not lead to the arrangement of orifices as defined in claim 1.

VI. Following the request for oral proceedings according to the notice of appeal and maintained in the grounds of appeal the Board summoned with communication dated 5 March 2008 for oral proceedings scheduled for 21 May 2008.

In the annex to the summons the Board gave in detail its preliminary opinion with respect to claim 1 of the set of claims filed as sole (main) request with the grounds of appeal.

In particular the question has been raised whether claim 1 is clear (annex to the summons, point 5).

Furthermore the question has been addressed whether the subject-matter of claim 1 can be considered as involving an inventive step in view of documents D1 and D3 (annex to the summons, points 6 - 6.3).

In this respect the question of whether D1 and D3 can be considered in combination, has been referred to as a key issue (point 6).

Having regard to the disclosure of D3 it has been indicated that this document does not disclose a nozzle applicable to spray synthetic foam, as erroneously indicated in the decision under appeal, but rather a nozzle for spraying a liquid reactive mixture (point 3). According to the preliminary opinion given in the annex to the summons (points 6.2 and 6.3) D1 discloses a nozzle having essentially the structure (mixing chamber; conduits and plurality of orifices) as defined in the preamble of claim 1 then on file and thus constitutes the closest prior art.

D3 discloses according to this preliminary opinion a nozzle for which, concerning its use, it is indicated that a liquid reacting mixture is to be sprayed for the production of an item made of foam (cf. claim 1; page 1, paragraph 1). The spray pattern should be uniform (page 10, paragraph 2) and in a band like or line like pattern (page 4, last paragraph).

Concerning the examination of inventive step according to the preliminary opinion:

The use disclosed for the nozzle in D3 appears to correspond, with respect to the liquid material to be sprayed and the spray pattern to be obtained, to the one according to the application in suit.

It appears that the person skilled in the art will consider D3 when attempting to solve the problem indicated above, and starting from the nozzle according to D1. This appears to hold true even more considering the instruction of D1 relating to the arrangement of nozzles to be adapted to the use of the nozzles.

Considering D3 in combination with D1 it appears that the person skilled in the art will maintain the basic structure of the nozzle as disclosed in D1 (since for the use according to claim 1 only modifications with respect to the arrangement of the orifices are required) when modifying the arrangement of orifices, as referred to in the instruction of D1, utilising in this respect the information given in D3 with regard to the arrangement of orifices, in order to obtain the intended flat line spray pattern.

It thus appears that the subject-matter of claim 1, even when considering it as satisfying the requirement of Article 84 EPC (cf. point 5 of the annex to the summons), is obvious in view of a combined consideration of D1 and D3.

VII. With letter dated 21 April 2008 the appellant responded to the preliminary opinion given in the annex to the summons, filing - "For the preparation of the oral proceedings on May 21, 2008" a main request comprising a claim 1, which has been amended as compared to

claim 1 of the previous main request, and two sets of claims according to auxiliary requests I and II (see point II above).

The arguments given in this letter do not address the question of clarity raised in the annex to the summons, which, irrespective of the amendments to claim 1, still applies with respect to claim 1 according to the main request.

Concerning the disclosure of D3, disregarding the preliminary opinion given in the annex to the summons, it is referred to D3 being directed to a nozzle for spraying urethane foam.

According to the letter, the subject-matter of claim 1 of the main request involves an inventive step, the reason being that applying the teaching of D3, concerning the arrangement of orifices, to the arrangement of D1 would not lead to one in which each orifice is contiguous with a peripheral surface defining the mixing chamber, since D1 explicitly discloses an inward spacing of the orifices and D3 does teach changing this arrangement in the context of liquid-gas mixtures.

According to the letter the subject-matter of claim 1 according to auxiliary request I involves an inventive step since the liquid atomizer being in the form of a sinusoidal spray member is not suggested by documents D1, D2 or D3.

Furthermore the subject-matter of claim 1 according to auxiliary request II involves an inventive step since

orifices connected by a U-shaped or V-shaped groove or channel that is inscribed on an outer surface of the spray head is not suggested by documents D1, D2 or D3.

VIII. With a further letter also dated 21 April 2008 the appellant notified the Board that the undersigning representative, accompanied by a person identified in this letter, would attend the oral proceedings.

By letter dated 8 May 2008 the Board was informed that the appellant would not be represented at the oral proceedings. Furthermore, the request for the oral proceedings was withdrawn and a "decision in writing" was requested. It was further requested to inform the appellant "(I)n the event that in the preparation of the decision it turned out that modifications could bring about a version that qualifies for granting ...".

IX. With fax dated 19 May 2008 the Board informed the appellant that the oral proceedings would be held as scheduled.

Oral proceedings were held 21 May 2008 in the absence of the appellant.

The facts, evidence and arguments relied upon by the appellant are as given in the written part of the proceedings, namely in the grounds of appeal and, in response to the preliminary opinion of the Board, in the letter dated 21 April 2008 (see points V and VII above).

Reasons for the decision

1. *Procedural issues*

1.1 The Board interprets the statement of the appellant "to bring about a decision in writing" in context with the statement that "the request for an oral proceeding is withdrawn" as well as the request that in case "modifications could bring about a version that qualifies for granting", the rapporteur provide a relevant indication, (letter dated 8 May 2008, page 1, paragraphs 2, 3 and 4) as an auxiliary request for continuation of the proceedings in writing if the Board finds the available requests not allowable.

This request thus amounts to one that no final negative decision is taken at the end of the scheduled oral proceedings.

No reasons have been given in support of this request.

To avoid any procedural ambiguity the appellant had been informed that the oral proceedings were going to be held as scheduled by a fax of the Board dated 19 May 2008.

1.2 According to Article 15(3) Rules of Procedure of the Boards of Appeal (RPBA), the "Board shall not be obliged to delay any step in the proceedings, including the decision, by reason only of the absence at the oral proceedings of any party duly summoned...".

Requests relating to unspecified modifications cannot be considered by the Board as the instance reviewing the decision under appeal.

The oral proceedings have therefore been conducted in the absence of the duly summoned appellant according to Rule 115(2) EPC. At the end of these oral proceedings the Board gave its decision dismissing the appeal.

The duly summoned appellant has, corresponding to Article 15(3) RPBA, been treated as relying only on its written case. The explanatory notes to this Article state the following (CA/133/02 dated 12 November 2002, available via the EPO web site):

"This provision does not contradict the principle of the right to be heard pursuant to Article 113(1) EPC since that article only affords the opportunity to be heard and, by absenting itself from the oral proceedings, a party gives up that opportunity".

1.3 According to the established case law of the Boards of Appeal an appellant which files amended claims shortly before the oral proceedings and subsequently does not attend these proceedings must expect a decision based on objections which might arise against such claims in his absence (T 1704/06, reasons point 7.4 of the reasons, referring to T 602/03, point 7 of the reasons).

The above applies in the present case notwithstanding the request given in the letter dated 8 May 2008 to continue the proceedings in writing if modifications were considered necessary (see the paragraph bridging

pages 1, 2), since the formulation of requests is the sole responsibility of the appellant.

Main request

2. Amended claim 1

Claim 1 according to the main request differs from claim 1 which has been filed with the grounds of appeal and discussed in detail in the annex to the summons to the oral proceedings (cf. section VI) essentially in that the feature according to which "each orifice (19) is coupled in fluid communication with the mixing chamber (50) adjacent to a peripheral surface (71) defining the mixing chamber for receiving peripheral fluid flow from the chamber" has been replaced by the feature "each orifice (19) is coupled in fluid communication with the mixing chamber (50) and is contiguous with a peripheral surface (71) defining the mixing chamber for receiving peripheral fluid flow from the chamber".

2.1 By way of this amendment the manner in which the orifices are arranged on the nozzle has been defined more specifically and is thereby limited to the one shown e.g. in figures 1, 6 and 9 of the application.

2.2 Concerning this amendment the Board has no objections under Articles 123(2) and (3) EPC. This issue needs no further discussion since, even leaving the objection raised in the annex to the summons (point 5) with respect to clarity (Article 84 EPC) aside, the nozzle according to this claim cannot be considered as

involving an inventive step (Article 56 EPC), as established in the following.

3. *Inventive step*

3.1 According to the appellant due to this amendment the nozzle according to claim 1 involves an inventive step even in view of the combined consideration of documents D1 and D3 (letter dated 21 April 2008, pages 2 - 4).

3.2 The appellant did not object to D1 being considered as constituting the closest prior art. The appellant focused on the amended feature of claim 1 by which the arrangement of the orifices in the nozzle is further defined (cf. point 2.1 above), concluding that the person skilled in the art which, in addition to the closest prior art according to D1, considers the arrangement of the orifices according to D3, would maintain the radial inward spacing of the orifices referred to in D1 and thus would not arrive at the nozzle according to claim 1 without inventive step being involved.

Concerning these arguments it is true that according to D1 the orifices are arranged radially inward of the peripheral surface defining the mixing chamber, to further accelerate the liquid and gas mixture to be discharged (cf. column 3, lines 50 - 60). It is, however, likewise true that according to D1, as indicated in the annex to the summons (point 6.2.1), with respect to the arrangement of the orifices various specific examples (cf. figures 3 - 7) are disclosed and a general instruction is given: "Depending on the application of the nozzle, the outer end wall 48 will

be provided with one or more outlet orifices and in FIG. 1, orifice 50 is disposed in axial alignment with the axis of the helical member 20." (column 3, lines 1-4).

3.2.1 As indicated in the annex to the summons the features distinguishing the nozzle according to claim 1 from the one disclosed in D1 lead to a nozzle with orifices arranged such that a specific application of the nozzle - in the sense of a specific spray pattern - is obtained (annex to the summons, point 6.2.2).

The above evaluation with respect to the features distinguishing claim 1 filed with the grounds of appeal from the nozzle according to D1 holds true also with respect to claim 1 according to the present main request since the amendment of claim 1 likewise concerns the arrangement of the nozzles (cf. point 2.1 above).

The effect to be obtained by the nozzle according to amended claim 1 thus remains the one indicated in the annex to the summons (cf. point 6.2.2) with respect to claim 1 as filed with the grounds of appeal. This effect correlates with the problem referred to in the application in suit, namely to provide a spray head for producing, in a specific application, a uniform flat fan spray pattern (column 2, lines 2 - 9) and is in line with the instruction given in D1 as indicated above, that the arrangement of orifices is to be chosen depending on the field of application of the nozzle.

3.2.2 The view expressed by the appellant with respect to the disclosure of D3 (letter dated 21 April 2008, page 4,

first full paragraph), according to which this document is directed to a nozzle for spraying urethane foam, does not take account of the disclosure as stated in D3, according to which, as referred to in the annex to the summons (point 6.3.3), a liquid reacting mixture - and not a urethane foam - is to be sprayed for the production of an item made of foam (claim 1; page 1, paragraph 1).

Furthermore according to D3 the spray pattern should be uniform (page 10, paragraph 2) and in a band like or line like pattern (page 4, last paragraph).

Based on this disclosure of D3 the Board came to its preliminary opinion given in the annex to the summons (points 6.2 - 7.2) that the nozzle according to claim 1 as filed with the grounds of appeal does not involve an inventive step starting from D1 as closest prior art and considering the arrangement of the nozzles according to D3.

This evaluation still applies with respect to the nozzle of claim 1 as amended according to the main request, since, in line with the amended feature (cf. point 2. above), according to which each orifice is coupled in fluid communication with the mixing chamber and is contiguous with a peripheral surface defining the mixing chamber for receiving peripheral fluid flow from the chamber, according to D3 it is considered as being important that the orifices are contiguous with the peripheral (and more precisely: circumferential) surface of the mixing chamber such that, corresponding to the application in suit (column 1, lines 49 - 57; column 2, lines 3 - 9), an overall uniform spray

pattern is obtained (D3, paragraph bridging pages 3 and 4; page 10, paragraph 2; paragraph bridging pages 10, 11; claim 1; figure 2).

Application of the teaching of D3 to the nozzle of D1 would include also this feature.

Thus, as indicated above, for the reasons given already in the annex to the summons to oral proceedings the nozzle according to claim 1 does not involve an inventive step such that the requirement of Article 56 EPC is not fulfilled.

Auxiliary requests I and II

4. *Admissibility*

The two sets of claims according to auxiliary requests I and II have been filed on 21 April 2008, i.e. one month before the oral proceedings, i.e. just in time in respect of the ultimate date by which further submissions should be filed, as indicated in the annex to the summons.

According to Article 13(1) RPBA, in line with the consistent jurisprudence of the Boards of Appeal, the admission of late filed requests lies in the discretion of the Board. Furthermore according to the consistent jurisprudence relating to the Board's power of exercising this discretion it is considered inter alia whether a convincing reason for the late filing is given, whether the newly filed claims are clearly allowable in the sense that no issues with respect to clarity (Article 84 EPC) or the admissibility of the

amendments (Article 123(2) EPC) arise and whether the amendments to the claims are such that divergent subject-matter results in the sense that from one request to the other a shift in the subject-matter of the claims takes place.

Concerning auxiliary requests I and II no reason is given for the late filing and as indicated in the following, the amendments introduce new issues with respect to Article 123(2) EPC. Furthermore, since the subject-matter of these requests is not convergent, they would lead to a shift with respect to the subject-matter in such a late stage of the proceedings. Under these circumstances the Board exercises its discretion to not admit auxiliary requests I and II.

4.1 Claim 1 according to auxiliary request I comprises the features of claims 1 and 3 as originally filed. In addition this claim comprises the following feature taken from the description "the liquid atomizer (100) may be a tubular unitary body similar to the liquid input conduit (12) having an outlet end with a central outlet orifice (110) of cylindrical configuration which extends through the outer end wall (111) thereof and intersects with conical surface (112), which constitutes the outlet wall of an outlet chamber (114), and wherein the outer end wall (111) radially flares from the longitudinal axis of a spray head (16)." (cf. column 7, lines 36 - 41).

The following needs to be considered with respect to these amendments.

The amendments of claim 1 according to auxiliary request I result in subject-matter which is not convergent with the subject-matter resulting from the amendment to claim 1 according to the main request, in that, instead of the arrangement of the orifices, the provision of a liquid atomizer has been further defined.

4.2 Further, the amendments also add the feature from the description according to which the outer end wall radially flares from the longitudinal axis of a spray head, while considering only the portion of the description directly concerning the structure of the outer end wall, thereby omitting the functional part of the description according to which the outer end wall radially flares "to expand the liquid spray pattern about the mixing chamber of the spray head" (column 7, lines 43 - 46).

In this connection reference is made to appellant's letter dated 21 April 2008 in which the effect of the radial flaring of the outer end wall (cf. page 5, paragraph 1) is specifically discussed in association with the feature newly incorporated into claim 1.

Since the above mentioned two portions of the description referred to are evidently closely related, the omission of the function of the radially flared outer end wall leads to serious doubts whether this amendment satisfies the requirement of Article 123(2) EPC.

4.3 Furthermore the expression "may be" at the beginning of the last paragraph of claim 1 according to auxiliary request I casts doubt as to what extent definitions in

this paragraph are directed to alternatives and to what extent they are mandatory, such that questions arise with respect to clarity of the claim (Article 84 EPC).

Consequently claim 1 according to auxiliary request I is not clearly allowable.

Exercising the Board's discretion to not admit claim 1 according to auxiliary request I is thus justified.

4.4 Claim 1 according to auxiliary request II comprises the features of claim 1 as filed together with features taken exclusively from the description (column 6, lines 31 - 34).

The features taken from the description define "that the orifices (19) are interconnected by a U-shaped or V-shaped groove or channel (80) that is inscribed on an outer surface (81) of the spray head (16).".

These features do not further define the subject-matter of claim 1 according auxiliary request I so its subject-matter diverges from that of the main request as well as that of auxiliary request I.

4.5 Furthermore these structural features taken from the description are, however, further defined therein by "(T)he channel 80 widens the outer edge of the orifices 19 such that the spray jets (m to t) as shown in Fig. 3, emanating therefrom peripherally expand along the channel upon exiting each orifice to thereby produce a broader orifice jet pattern being less concentrated than one emanating from an orifice." (column 6, lines 43 - 48).

The omission of this associated portion of the description relating to the effect to be obtained by the features added to claim 1 according to auxiliary request II makes it questionable whether this claim satisfies the requirement of Article 123(2) EPC.

In this connection reference is made to the effect the groove or channel has - in combination with further structural features also not comprised in claim 1 - as emphasized in the letter of the appellant dated 21 April 2008 (page 5, paragraphs 1 and 2 from the bottom and paragraph bridging pages 5, 6).

Consequently claim 1 according to auxiliary request II is also not clearly allowable.

Exercising the Board's discretion to not admit claim 1 according to auxiliary request II is thus justified.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Nachtigall H. Meinders