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Datasheet for the decision of 27 September 2010

Case Number: T 1934/06 - 3.3.05

Application Number: 02734641.0

Publication Number: 1395521

IPC: C02F 1/42

Language of the proceedings: EN

Title of invention:
Article for deionization of water

Applicant:
THE PROCTER & GAMBLE COMPANY

Opponent:
-

Headword:
Water deionization/THE PROCTER & GAMBLE COMPANY

Relevant legal provisions:
EPC Art. 54, 84

Relevant legal provisions (EPC 1973):
-

Keyword:
"Novelty - no (main request)"
"Clarity - no (auxiliary request)"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1934/06 - 3.3.05

D E C I S I O N
of the Technical Board of Appeal 3.3.05
of 27 September 2010

Appellant: THE PROCTER & GAMBLE COMPANY
One Procter & Gamble Plaza
Cincinnati, OH 45202 (US)

Representative: Kellenberger, Jakob
NV Procter & Gamble
Services Company S.A.
Intellectual Property Department
Temselaan 100
BE-1853 Strombeek-Bever (BE)

Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 14 July 2006 refusing European application No. 02734641.0 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: G. Raths
Members: H. Engl
C. Vallet

Summary of Facts and Submissions

I. European patent application No. 02 734 641.0, based on international patent application PCT/US02/17414, was refused by a decision of the examining division posted on 14 July 2006.

II. The documents cited in the international search report included the following:

D1: GB-A-2 297 901
D2: EP-A-1 290 126 (= WO-A-01/96 516)
D3: EP-A-1 289 682 (= WO-A-01/96 036)
D4: WO-A-97/48 927
D5: WO-A-98/01 223

III. In the contested decision, the subject-matter of claim 1 was found to lack novelty having regard to each of documents D1 to D4, disclosing purifying devices capable for use in an end of a hose water purifier, said devices comprising a mixture of at least two ion exchange resins of the claimed type. The claim feature relating to the flow rate of greater than or equal to 1.9 liters/minute/liter of the total volume of ion exchange resin was regarded by the examining division as a mere process feature which could not be taken into consideration when assessing novelty of the claimed device.

IV. The notice of appeal was filed by letter dated 6 September 2006. Under cover of a letter dated 22 November 2006 the applicant (henceforth: the appellant) filed the statement of grounds of appeal and

also submitted amended sets of claims as a main request and an auxiliary request.

V. Claim 1 of the main request reads:

"1. A portable purifying device for use in an end of a hose water purifier, said purifying device comprising a structure containing a sequential arrangement or mixture of at least two of the following types of ion exchange resins: WAC/SAC/WBA/SBA, wherein said purifying device is capable of permitting water to flow through said sequential arrangement or mixture of at least two ion exchange resins at a flow rate of greater than or equal to about 14 gallons/minute/ft^3 (about 1.9 liters/minute/liter) of the total volume of ion exchange resin, and wherein the ion exchange resins comprise resin beads that are less than 0.6 mm in diameter."

Claim 1 of the auxiliary request differs from claim 1 of the main request in that the passage

", and wherein said at least two different types of ion exchange resins are in the form of separate beds, and said separate beds differ in at least one of the following: cross-sectional area and aspect ratio"

is inserted after the word "diameter" at the end of the claim.

VI. The board informed the appellant in a communication annexed to the summons for oral proceedings of its provisional opinion on the pending claims. The board raised a novelty objection against claim 1 of the main

request based on the disclosure of document D5. A clarity objection under Article 84 EPC was raised against claim 1 of the auxiliary request.

VII. By letter dated 6 September 2010, the applicant informed the board that it did not intend to attend the oral proceedings and requested that the appeal should be continued in writing. No further arguments were put forward.

Accordingly, the summons for oral proceedings was cancelled.

VIII. The appellant's arguments may be summarised as follows:

Novelty

Document D5 did not specifically disclose the sequential arrangement of ion exchange resins as in newly proposed claim 1 of the main request, but rather disclosed mixed ion exchange resins. Furthermore, D5 neither disclosed the "flow rate" feature, as defined in claim 1 of the main and auxiliary requests, nor the claim feature according to which the ion exchange resins comprised resin beads that were less than 0.6 mm in diameter.

Inventive step

The appellant identified document D5 as representing the closest prior art. Based on the above-mentioned differences with respect to D5 and the technical effects provided thereby, the appellant defined the technical object of the application as the provision of

an efficient, portable and lightweight device for purifying water having an enhanced kinetic for providing faster "real-time" conversion of tap water ensuring that the water discharged did not leave undesired residues on the treated surface. Furthermore, the technical object included achieving an improved utilisation of the ion exchange capacity and enhanced flexibility in designing the said purifying device for use in the context of a portable device.

D5 did not suggest selecting a flow rate through the structure of greater than or equal to about 14 gallons/minute/ft^3 (about 1.9 liters/minute/liter) of the total volume of ion exchange resin. In contrast, document D5 specifically mentioned that beyond such a flow rate of 14 gallons/minute/ft^3 deionisation was not sufficient and spotting was likely to occur. The partial technical problem of achieving an improved utilisation of the ion exchange capacity and enhanced flexibility in designing the said purifying device was not even addressed in D5 or any of the other cited documents.

Similar arguments applied, *mutatis mutandis*, to the subject-matter of the claims of the auxiliary request.

IX. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request or the auxiliary request, both submitted with the statement of grounds of appeal.

Reasons for the Decision

1. *Procedural matters*

The oral proceedings initially requested by the application and scheduled for 14 December 2010 were cancelled because the appellant, by letter of 6 September 2010, said it would not be attending the hearing and requested that the procedure be continued in writing.

2. *Main request - novelty*

Document D5 discloses a portable, preferably hand-held, device for washing and rinsing an article, such as a vehicle. The device may be configured to be attached directly to a water source, such as a garden hose. See page 3, line 33 to page 4, line 3; page 20, lines 1 to 18; and Figures 1 to 9.

The device of D5 comprises a chamber containing an ion exchange resin bed (20A, 21, 24, 50A) (see Figures 3, 5 and 6) for purifying the water flowing through the device. The ion exchange resins are described on page 19, lines 14 to 34 and include DOWEX MONOSPHERE MR-3 mixed ion exchange resin, which is a hydrogen/hydroxyl ion (H^+/OH^-) mixed bed resin having a particle size distribution of between 0.550 and 0.590 ± 0.05 mm. The board cannot, therefore, accept the appellant's argument that a resin particle size of less than 0.6 mm was not disclosed in D5.

Such a mixed H^+/OH^- ion exchange resin will necessarily be composed of at least two ion exchangers selected

from among WAC (weak acid cation), SAC (strong acid cation), WBA (weak base anion) and SBA (strong base anion) ion exchangers. The claimed embodiment according to which the purifying device comprises a structure containing a mixture of at least two of the above-mentioned types of ion exchange resins is therefore known from D5.

The water flow through the prior-art device (through the resin bed) generally ranges between 12 and 14 gallons per minute per cubic foot of resin. In view of the clear and factual disclosure of this feature on page 10, lines 24 to 27 and on page 18, lines 4 to 7, of D5, the board cannot follow the appellant's argument that such a particular flow rate was not disclosed in D5. The value of 14 gallons per minute per cubic foot of resin anticipates the value given in present claim 1.

Therefore, the subject-matter of claim 1 according to the main request is fully anticipated by the disclosure of document D5. The requirements of Article 54 EPC are not met.

3. *Auxiliary request - clarity*

Claim 1 of the auxiliary request contravenes the clarity requirement of Article 84 EPC in that the claim feature *"… said purifying device comprising a structure containing a sequential arrangement or mixture of at least two of the following types of ion exchange resins: WAC/SAC/WBA/SBA …"* is incompatible with the claim feature *"… wherein said at least two different types of ion exchange resins are in the form of separate beds …"*.

The claimed embodiment which comprises as a first claim feature a mixture of at least two ion exchange resins of the types WAC/SAC/WBA/SBA cannot, at the same time, contain as a second, mandatory claim feature the ion exchange resin in separate beds of at least two different types of ion exchange resins.

Said claim features are therefore mutually contradictory, rendering the claim as a whole unclear.

Claim 1 is therefore not allowable (Article 84 EPC).

4. As no allowable request is on file, the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar The Chairman

C. Vodz G. Raths