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Datasheet for the decision of 10 April 2019

Case Number: T 1881/17 - 3.3.05

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Language of the proceedings: EN

Title of invention:
METHOD FOR MULTIPLE DOSAGE OF LIQUID PRODUCTS, DOSING APPARTUS AND DOSING SYSTEM

Patent Proprietor:
ECOLAB INC.

Opponent:
Reckitt Benckiser (Brands) Limited

Headword:
Multiple dosage/ECOLAB

Relevant legal provisions:
EPC Art. 123(2), 56

Keyword:
Amendments - added subject-matter (no)
Inventive step - (yes)

Decisions cited:

Catchword:

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Beschwerdekammern

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Case Number: T 1881/17 - 3.3.05

D E C I S I O N
of Technical Board of Appeal 3.3.05
of 10 April 2019

Appellant: (Opponent)	Reckitt Benckiser (Brands) Limited 103-105 Bath Road Slough, Berks, SL1 3UH (GB)
Representative:	Cawdell, Karen Teresa Reckitt Benckiser Corporate Services Limited Legal Department - Patents Group Dansom Lane Hull HU8 7DS (GB)
Respondent: (Patent Proprietor)	ECOLAB INC. Ecolab Center 370 North Wabasha Street St. Paul, MN 55102-2233 (US)
Representative:	Godemeyer Blum Lenze Patentanwälte Partnerschaft mbB - werkpatent An den Gärten 7 51491 Overath (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 13 June 2017 concerning maintenance of the European Patent No. 1759170 in amended form.**

Composition of the Board:

Chairman	E. Bendl
Members:	A. Haderlein
	P. Guntz

Summary of Facts and Submissions

I. The appeal was filed by the appellant (opponent) against the interlocutory decision of the opposition division finding that, on the basis of the then auxiliary request 1, the patent in suit met the requirements of the EPC.

II. The wording of the relevant claims of auxiliary request 1 underlying the impugned decision is as follows:

"1. Method for the multiple dosage of a liquid product used in a process for washing textiles and/or a warewashing process, wherein the dosing amount of said liquid product is measured by a weight cell in each dosing cycle,

the liquid product is fed into a vessel the weight of which, including the substances contained therein, is determined by the weight cell, until the desired dosing amount of said liquid product and/or the maximum filling volume of the vessel is reached,

the time required to feed the liquid product until the desired dosing amount and/or the maximum filling volume of the vessel is reached is measured

and wherein the feeding time is compared to the ones of former dosing cycles of the same liquid product and if the measured times differ to a larger extent than a predetermined standard deviation from the time calculated from the former dosing cycles a signal will be induced.

22. Dosing apparatus for dosing one or more liquid

products according to the method of claims 1 to 21 comprising at least one programmable logic control (1), a weighing device (3b) and one or more dosing lines wherein each dosing line comprises
a) at least one feeding line for the liquid product(s)
b) optionally one or more delivery devices, especially for feeding the liquid product(s) or other liquids into the vessel (2a - d), discharging the vessel and/or transporting the product(s) through the dosing line (4)
c) optionally at least one feeding line for one or more liquid solvents
d) a vessel (3a) the weight of which is weighed by the weighing device (3b)
e) at least one discharging line for the dosed product(s) (7a)
f) optionally one or more application devices connected with the discharging line and consuming the dosed product(s),
characterized in that the apparatus further comprises a means for measuring the time required to feed the liquid product until the desired dosing amount and/or the maximum filling volume of the vessel is reached, a means to compare the actual feeding time with the ones of former dosing cycles of the same liquid product, and a means to induce a signal if the actual measured time differs to a larger extent than the predetermined standard deviation from the expected time with respect to the former dosing cycles of the same product."

The remaining claims relate to dependent method or apparatus claims or to uses of the method and the apparatus according to claims 1 to 21, respectively 22 to 28, or to a method using the method or the apparatus according to claims 1 to 28.

III. The following documents were among those cited in the proceedings before the opposition division:

D1: US 4 913 198 A
D2: US 3 881 328 A
D3: US 5 148 841 A
D4: Shafer, M. R., and Ruegg, F.W., Liquid-Flowmeter Calibration Techniques, Transactions of the ASME, October 1958, pp. 148-1369 to 158-1379

IV. The opposition division decided *inter alia* not to admit document D4 for being filed late and *prima facie* not relevant for the outcome of the proceedings. The requirements of Article 123(2) EPC were met, and the subject-matter of auxiliary request 1 was considered to involve an inventive step, in particular when starting from D2 as the closest prior art.

V. With its reply to the grounds of appeal, the patent proprietor (respondent) maintained the claims found allowable by the opposition division as its main request and additionally filed an auxiliary request.

VI. The appellant's arguments, as far as relevant for the present decision, may be summarised as follows:

The "used in a process for washing textiles and/or a warewashing process" feature led to non-compliance with Article 123(2) EPC. The subject-matter of claim 1 lacked inventive step in view of D2 in combination with either common general knowledge as evidenced by D1 and D4 or D3. It was also obvious when starting from D3. The subject-matter of claim 22 lacked inventive step in view of D2 or D3 in combination with common general knowledge and/or D3 or D2.

VII. The respondent's arguments, as far as relevant for the present decision, may be summarised as follows:

D4 should not be used in the discussion of inventive step. The requirement of Article 123(2) EPC was met, and there was an inventive step in view of the other cited prior art.

VIII. Requests

The appellant requested that the decision under appeal be set aside and that the patent be revoked.

The respondent requested that the appeal be dismissed or, in the alternative, that the patent be maintained in amended form based on the "first" (and only) auxiliary request submitted with the reply to the statement of grounds.

Reasons for the Decision

1. Admissibility of D4

D4 was not admitted by the opposition division due to its late filing and lack of relevance. The department of first instance exercised its discretion in accordance with the proper principles and did so in a reasonable way, and thus did not exceed the proper limits of its discretion (see the Case Law of the Boards of Appeal, 8th ed., III.K.5). The appellant does not even submit that the opposition division did not exercise its discretion accordingly. Thus, D4 is to be disregarded in the present decision.

2. Amendments - Article 123(2) EPC

The appellant submits that the feature "used in a process for washing textiles and/or a warewashing process" in claim 1 refers to the liquid product but not to the claimed method and therefore goes beyond the original disclosure.

Even when interpreting claim 1 as suggested by the appellant, the subject-matter of claim 1 has a basis in the application as originally filed as paragraph [0013] discloses that the liquid product preferably represents an ingredient commonly used in processes for washing textiles and paragraph [0049] goes on to state that the dosing method may be used in any kind of process in which at least one liquid product has to be dosed, preferably for washing textiles, especially for warewashing.

Thus, the requirement of Article 123(2) EPC is met.

3. Inventive step - Article 56 EPC

3.1 The invention concerns a method for the multiple dosage of a liquid product used in a process for washing textiles and/or a warewashing process and a dosing apparatus for dosing one or more liquid products.

3.2 The appellant cites D2 and D3 as possible closest prior art documents.

3.2.1 D2 relates to the automatic injection of various liquid products into a laundry washing machine by means of an electric signal having a predetermined duration (see the abstract and column 2, lines 15 to 17). D3 concerns the filling of receptacles with metered weights by

using weight measurement and by simultaneous determination of the time needed to fill the receptacle (see abstract). Both disclosures aim at increasing dispensing accuracy. However, as D2 refers to the automatic dosing of various liquid products into a laundry washing machine, whereas D3 describes the filling of receptacles, D2 is considered to represent the closest state of the art.

3.2.2 It is uncontested that D2 does not disclose determining the weight of the liquid fed to the vessel using a weight cell.

3.2.3 The appellant is of the opinion that D2 also discloses the features relating to the comparison of the feeding time to the ones of former dosing cycles of the same liquid (see the last paragraph of claim 1). According to the appellant, the latter feature was implicitly disclosed in D2 because this document taught highly accurate and dependable dispensing and this could not be achieved by simply arbitrarily selecting the dosing time. Rather, the dosing time must be based on a comparison with former dosing cycles of that liquid.

This argument is not persuasive. While D2 deals with the high accuracy of dispensing and relates to the "timing [of] the period during which each liquid product is injected into the laundry machine" (see column 2, lines 38 and following) and to the "ready adjustment of the time period during which power is supplied to" the injection valve (column 6, lines 65 and following), D2 neither explicitly nor implicitly discloses the contentious feature. The adjustment of the period during which the liquid product is injected by using a predetermined time value does not necessarily imply that the feeding time actually

measured is compared with former dosing cycles of the same liquid. Rather it may also refer to a calculated time value or any preset time value which is different from the feeding times of former feeding cycles.

3.2.4 Thus, the subject-matter of claim 1 differs from the method disclosed in D2 by the features relating to (i) the weight cell (see the second paragraph of claim 1) and (ii) the comparison (see the fourth/last paragraph of claim 1).

3.3 According to the patent, the problem was to increase dosing accuracy (see paragraph [0009]).

3.4 According to claim 1 of the respondent's main request, it is proposed to solve this problem by a method for the multiple dosage of a liquid product characterised in that:

(i) the weight of the liquid product fed to the vessel is determined by a weight cell, until the desired dosing amount of said liquid product and/or the maximum filling volume of the vessel is reached,

and (ii) the feeding time is compared to the ones of former dosing cycles of the same liquid product, and if the measured times differ to a larger extent than a predetermined standard deviation from the time calculated from the former dosing cycles, a signal will be induced.

3.5 It is uncontested that the subject-matter of claim 1 solves the problem set out above.

3.6 As to obviousness, the appellant refers to the common general knowledge and D3.

3.6.1 As to common general knowledge, it may be argued that it was commonly known to use a weighing cell for weighing the liquid to be dosed to increase dosing accuracy. However, such an allegedly commonly known measure would not have led the skilled person to a method having the feature relating to the comparison (feature ii). Thus, it would not have been obvious to arrive at the claimed method when starting from D2 and in the light of common general knowledge.

3.6.2 As to D3, it is uncontested that this document discloses the weighing feature (i) above but does not disclose feature (ii). D3 mentions a "reference time" to which the actually measured feeding time is compared (see column 3, lines 48 to 58 and line 65 to column 4, line 5). This "reference time" is "input to the control unit when it was installed or when it was switched on" (column 3, lines 50 and 51) and thus is not (necessarily) a feeding time value of former dosing cycles. As in D2 (see 3.2.3 above), this "reference time" could be obtained by inputting a theoretical value or one that has been calculated from data other than those of former cycles. Moreover, inputting a reference time "when [the control unit] was installed or when it was switched on" (lines 50 and 51) implies that there are no "former dosing cycles" as required in claim 1. Thus, even when combining the teachings of D2 and D3, the skilled person would not have arrived at the method of claim 1 because such a method would still be missing feature (ii).

3.6.3 D1 was cited by the appellant to show that it was obvious to use a weighing cell in the method of D2. But

as set out above, by including a weighing step (feature i) in the method of claim 1, the skilled person would not have arrived at the claimed method.

3.6.4 It was therefore not obvious to arrive at the method according to claim 1.

3.7 The reasons with respect to claim 1 apply *mutatis mutandis* to claim 22 (apparatus). Also, as stated by the appellant at the oral proceedings before the board, its submissions relating to the latter claim correspond to claim 1.

3.8 For the sake of completeness, it is noted that the subject-matter of claims 1 and 22 was also not obvious when starting from D3 because none of the cited documents disclose or hint at feature (ii) above.

3.9 Therefore, the subject-matter of claims 1 and 22 as well of the remaining claims comply with the requirement of inventive step set forth in Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

C. Vodz E. Bendl

Decision electronically authenticated