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**Datasheet for the decision
of 16 September 2011**

Case Number: T 1947/10 - 3.2.04

Application Number: 03782332.5

Publication Number: 1578234

IPC: A47J 31/41, A47J 31/60,
B67D 1/07

Language of the proceedings: EN

Title of invention:
Clean-in-place automated food or beverage dispenser

Applicant:
Nestec S.A.

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56, 82, 84, 123(2)

Keyword:
"Novelty - no (main request)"
"Inventive step - no (all requests)"
"Clarity - no (auxiliary requests)"
"Added subject-matter - yes (auxiliary requests)"
"Unity - no (auxiliary requests)"

Decisions cited:
-

Catchword:
-



Case Number: T 1947/10 - 3.2.04

D E C I S I O N
of the Technical Board of Appeal 3.2.04
of 16 September 2011

Appellant: Nestec S.A.
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Representative: Ducreux, Marie
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 19 April 2010
refusing European patent application
No. 03782332.5 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman: A. de Vries
Members: M. Poock
C. Heath

Summary of Facts and Submissions

I. The Appellant lodged an appeal, received 17 June 2010, against the decision of the Examining Division posted 19 April 2010, refusing the European patent application No. 03 782 332.5 and simultaneously paid the appeal fee. The statement setting out the grounds of appeal was received 24 June 2010.

In its decision the Examining Division held that the application did not meet the requirements of Article 52(1) in combination with Articles 54 and 56 EPC for lack of inventive step in view of

D1: US-A-4 848 381

D2: US-A-4 465 210

D4: US-A-5 329 950

During the appeal proceedings the Board considered the following further document cited in the application:

D5: US-A-6 240 952

II. The Appellant requests that the decision under appeal be set aside and that a patent be granted on the basis of claims of a main request, or in the alternative, according to claims of a first and second auxiliary request all filed with the statement of the grounds of appeal.

III. The wording of the independent claims of the requests is as follows:

Main Request

1. "An automated food product dispenser comprising:
 - a mixing device receiving a milk based fluid and prepare a milk based product, a nozzle in fluid association with the mixing device dispensing the milk based product,
 - a clean-in-place flowpath assembly located in the dispenser and including a supply of cleaning or sanitizing fluid and a flowpath delivering the cleaning or sanitizing fluid, the supply of cleaning or sanitizing fluid being produced within the dispenser by mixing a chemical cleaning concentrate, supplied from a concentrate supply, with water supplied from a water supply to generate a chemical cleaning agent for use as the cleaning or sanitizing fluid, characterized in that it comprises:
 - an interface connection (233) establishing a supply of the milk based fluid (211a) from a milk based fluid reservoir (211),
 - a product flowpath (620) directing the milk based product or the milk based fluid to flow from the interface connection (233) through the mixing device (400) to the nozzle (500),and characterized in that the clean-in-place flowpath assembly located in the dispenser includes a flowpath (235) delivering the cleaning or sanitizing fluid to or through the product flowpath."

17. "A method for automatically cleaning, in a food or beverage dispenser, a flowpath establishing connection with at least one milk based fluid comprising the steps of:

- providing a milk based fluid reservoir (211) and an interface connection (233) establishing a supply of the milk based fluid (211a) from the milk based fluid reservoir to the milk based fluid flow path (620);
- preparing a rinsing, cleaning or sanitizing fluid within the dispenser;
- circulating the rinsing, cleaning or sanitizing fluid at a certain velocity through the interface connection (233) and to or through the product flowpath (620, 406, 409, 710, 500) of the dispenser to clean it; and
- recirculating the rinsing, cleaning or sanitizing fluid through the clean-in-place flowpath."

25. "A machine readable program containing instructions for controlling a dispenser to dispense a milk-based product, the dispenser having

- an interface connection (233),
- a mixing device (400),
- a nozzle in fluid association with the mixing device (500),
- a product flowpath (620) directing the milk based product to flow from the interface connection (233) through the mixing device (400) to the nozzle (500), and
- a clean-in-place flowpath assembly located in the dispenser including a supply of cleaning or sanitizing fluid and a flowpath delivering the cleaning or sanitizing fluid to or through the product flowpath, wherein the program comprises:
 - means for preparing a rinsing, cleaning or sanitizing fluid within the dispenser,
 - means for circulating the fluid at a predetermined velocity through the interface connection (233) and to

or through the product flowpath of the dispenser to clean it, and

- means for recirculating the fluid through the clean-in-place flowpath".

First auxiliary request

Claim 1 is an in the main request but for the following amendments (highlighted by the Board using ~~strikethrough~~ to indicate deleted text or by underlining added text):

"- a mixing device ~~to~~ receiving ...";

" a nozzle in fluid association with the mixing device ~~to~~ dispensing ...";

"- a clean-in-place flowpath assembly ... including a supply of cleaning or sanitizing fluid and a flowpath ~~to~~ delivering";

"- an interface connection (233) ~~to~~ establishing ...";

and

"- a product flowpath (620) ~~to~~ directing the milk based product or the milk based fluid, and characterized in that the clean-in-place flowpath assembly located in the dispenser includes a flowpath (235) ~~to~~ delivering ...".

In addition the following final feature has been added :

"further comprising a central controller (1000) wherein the nozzle is controlled by the controller (1000) to be positioned in either

- a dispensing position wherein the milk based product is dispensed to a dispensing zone, or

- a cleaning position wherein the nozzle is in fluid communication the buffer reservoir to recirculate cleaning or sanitizing fluid or to drain cleaning fluid from the mixing bowl."

Claim 16 is as claim 17 in the main request but for the following amendments (again highlighted by the Board using either ~~striketrough~~ or underlining)

- The opening lines now reads "A method for, a flow path ~~for~~ establishing";
- The first step now reads : "- providing a milk based fluid reservoir (211) and an interface connection (233) ~~to~~ establishing a supply of the milk based fluid (21 la) from the milk based fluid reservoir to the ~~milk-based fluid~~ product flowpath (620);".

Claim 24 is as claim 25 in the main request but for the following amendments (again highlighted by the Board using ~~striketrough~~ or underlining):

- "- a product flowpath (620) ~~to~~ directing the milk based product or the milk based fluid ...";
- "- a clean-in-place flowpath assembly located in the dispenser including a supply of cleaning or sanitizing fluid and a flowpath ~~to~~ delivering".

Second auxiliary request

Claim is as in the first auxiliary request.

Claim 17 is as claim 16 in the first auxiliary request but adds at the following final feature:

- "- wherein the circulation of the rinsing, cleaning or sanitizing fluid is automatically conducted at periodic intervals of non-use of the dispenser or upon demand by a user".

Claim 25 is as claim 24 in the first auxiliary request but adds the following final feature:

"- means for automatically conducting circulation of the rinsing, cleaning or sanitizing fluid at periodic intervals of non-use of the dispenser or upon demand by a user".

- IV. The Appellant's arguments, presented in the statement of the grounds of appeal, are as follows:

The problem addressed by the invention of claim 1 of the main request is to enable an automatic switching between cleaning and dispensing at any time of day without having to disconnect the milk tank and to connect the sanitizing tank. This is solved by the product flow path and clean-in-place flow path assembly which are simultaneously present in the claimed dispenser. None of the cited documents show this solution. D1 provides a complicated cleaning requiring the intervention of an operation and which is only possible during non-working hours, which has either one or the other feature but not both together.

The subject-matter of claims 17 and 25 is similarly inventive as no prior art suggests simultaneously providing the features of an interface connection and a circulation of rinsing, cleaning or sanitizing fluid through the interface connection and the production flow path.

- V. With the annex to a summons to oral proceeding before the Board pursuant to Article 15(1) RPBA, dated 8 June 2011, the Board made preliminary observations concerning novelty, inventive step, added subject-matter, clarity and unity of invention.

VI. The Appellant without further comment or observations informed the Board per fax of 6 September 2011 that he would not attend the oral proceedings scheduled for 16 September 2011. These were held in his absence.

Reasons for the Decision

1. The appeal is admissible.

2. Background

The application concerns a milk based product dispenser with an integrated or "clean-in-place" cleaning assembly. A milk based fluid is supplied from a reservoir (211a in figure 1), mixed and prepared (at 400) as a product that is dispensed from a nozzle (500) via a corresponding product flow path. Similarly, cleaning concentrate from a supply (987a, 986a) is mixed (at 980) with water (from 985) for delivery via a flowpath (via 988, 989) to ultimately flush through the dispensing system (from 232 onwards). The dispenser further includes an interface connection (233 in figure 2) establishing supply from the reservoir.

3. Main Request

3.1 In section 1.1 of the annex to the summons the Board made preliminary observations regarding *novelty* of the dispenser of claim 1 with regard to D1: "Turning first to novelty over D1, figures 1, 1A and 1B of this document shows a dispenser that mixes shakes at 24 from syrup from a supply 19a-c and milk based fluid from supply 77 via respective lines 76, 90. The lines can be

disconnected from their supplies and hooked up with cleaning liquid supply lines 70,72, 93 of a clean-in-place assembly as shown in figure 1B, which may be integrated (col.33, top). The cleaning liquid is pre-mixed in a tank 40 from concentrate in bottles 52a,54a and water from water supply 43."

"The end of line 76 is in the product flow path from reservoir 77 via mixer 24 to the dispensing nozzles and, in the Board's preliminary view, establishes supply of milk based fluid from reservoir 77 as required by claim 1. In its estimation, moreover, lines 70,72,93 of the cleaning assembly necessarily constitute a flowpath, that, when hooked up, delivers cleaning liquid into the product flowpath, from line 76 onwards".

3.1.1 Thus the dispenser D1 comprises all of the preamble features of claim 1: a *mixing device* (mixer 24), a *nozzle* (one the dispensing nozzles), and a *clean-in-place flowpath assembly* (shown in figure 1B) in the dispenser and mixing a cleaning agent from a concentrate and water supplies. Nor is this disputed.

Additionally, it also includes all of claim 1's characterizing features : *an interface connection*, defined in claim 1 only by its function, and which thus corresponds to the end of line 76, which establishes milk based fluid supply from its reservoir (at 77); a product flow path (76,90) directing milk from the end of line 76 as interface connection through mixing device 24 to the (dispensing nozzles); and a *flow path* - lines 70,72,93 - *in the clean-in-place flowpath assembly* delivering cleaning liquid into the product flowpath, that is from line 76 onwards.

3.1.2 In the annex, section 1.1, the Board already stated:
"[that] claim 1 might allow for a more rapid switching than the manual switchover in D1 (see however column 33, 11 to 13) is not apparent from any its features as presently worded." It was thus unable to see this alleged distinction over D1.

3.1.3 The Appellant chose not to comment. Without submissions to the contrary, the Board concludes that the subject-matter of claim 1 of the main request lacks novelty, Article 52(1) with Article 54 EPC.

3.2 In sections 1.2 of the annex the Board outlined an approach for assessing *inventive step* of claims 17 and 25 starting from D1 : "In D1 the cleaning liquid also circulates to or through the end of line 76 as interface connection when the cleaning system is hooked up to it. The only difference of these claims over D1, in the Board's view, is that the cleaning liquid is re-circulated. This measure, which improves cleaning efficiency, is known in the context of clean-in-place cleaning systems for dispensing machines, see D2, col. 1, line 41, to col. 2, line 5, or D4 (abstract). The issue of inventive step hinges on whether or not it is obvious to apply this known measure to the same effect in a dispensing device as in D1."

"In this context the Board notes that neither claims nor detailed embodiments call for milk supply and rinsing fluid circulation to take place via the interface simultaneously. In the detailed embodiment these different operation modes are carried out in alteration by appropriate setting of the interface

connection 233 formed by the milk manifold 230, figures 6 and 8."

Failing arguments to the contrary, the Board concludes it must indeed be obvious.

- 3.2.1 An alternative approach outlined in section 1.3 of the annex has also gone uncommented by the Appellant. This approach departed from D5, figures 1 and 2, as closest prior art. Summarizing, D5, figures 1 and 2, showed an in-place cleaning system 14 which was selectively switchable via a switchable manifold 11 to a dispenser. The Board saw two differences over the D5, namely the preparation and mixing of the cleaning fluid in the device, and its recirculation. It considered the two differences to be technically independent, the first automating cleaning further, the other improving (cleaning) efficiency. They were both seen to be known, premixing from D1, recirculation from D2 or D4. The Board then posed the question "whether it would be obvious to apply either measure to the same effect in a dispenser with integrated, automatic cleaning system as in D5."

Failing arguments to the contrary the Board concludes that it is indeed obvious and that the invention of claims 17 and 25 is nothing more than an obvious juxtaposition of known measures.

- 3.2.2 In either case therefore, whether departing from D1 or D5, the subject-matter of claims 17 and 25 lacks inventive step, Article 52(1) with Article 56 EPC.

3.3 In section 1.4 of the annex, the Board considered *clarity*: "Claims 17 and 25 introduce "*the* milk based fluid flow path", "*the* product flow path" and "*the* clean-in-place flow path" without any precedent. Claim 25, finally, is directed at a machine readable program, but lists only structural features of a device, not control steps or subroutines of a control program". Failing any response to this point, the Board finds these claims to lack clarity, Article 84 EPC.

4. Auxiliary Requests

4.1 In section 2 of the annex the Board discussed the auxiliary requests:

"2.1 Claim 1 (either request) combines the features of claims 1,2 and 16 as originally filed. However, claim 16 as originally filed is dependent on claim 5 which is solely dependent on claim 1. Claim 5's features do not all appear in claim 1 resulting in an intermediate generalization, which is normally not allowable under Article 123(2) EPC, see the Case Law of the Boards of Appeal, 6th edition, 2010, III.A.2".

"2.2 Claim 1 of both requests introduces features "the buffer reservoir", "the mixing bowl" without precedent, while the method and program claims appear to be unclear for the reasons given above."

"2.3 The feature added to claim 1 to distinguish the claimed dispenser over that of D1 appears to be technically unrelated to the features that distinguish the method and program of claims 16 (17) and 24 (25) from D1. Thus, the concept of positioning the nozzle

differently for dispensing and for cleaning appears different from that of re-circulating the cleaning fluid, additionally cleaning periodically. Prima facie claim 1, on the one hand, and claims 16(17) and claims 24(25), on the other, define different inventions, contrary to Article [82] EPC."

"2.4 It is unclear what technical purpose different nozzle positions for cleaning and dispensing serve, and this feature would seem arbitrary. It also appears routine to periodically clean dispensing devices, whether this is done automatically or manually. Why therefore does incorporation of either (or both) of these features render the claimed subject-matter inventive over the prior art?"

- 4.2 These various observations go unaddressed. Without arguments to the contrary, the Board concludes that the claims of the first and second auxiliary request fail to meet the respective requirements of Article 123(2), 84, 52(1) in combination with Article 56, and 82 EPC.
5. As none of the requests is allowable the appeal must fail.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar

The Chairman

G. Magouliotis

A. de Vries