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Datasheet for the decision of 25 May 2020

Case Number: T 0908/19 - 3.2.04

Application Number: 12002101.9

Publication Number: 2520159

IPC: A01G1/04, C05F9/04

Language of the proceedings: EN

Title of invention:
A METHOD OF TRANSPORTING COMPOST

Patent Proprietor:
Cedar Spring International Ltd.

Opponents:
CNC Holding B.V.
Coenegrachts Substraat NV

Headword:

Relevant legal provisions:
EPC R. 79(1)
EPC Art. 123(3), 56
RPBA 2020 Art. 13(2)

Keyword:
Amendments - broadening of claim (no)
Inventive step - (yes)
Late submitted material - justification for late filing (no)

Decisions cited:
T 0800/91

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 0908/19 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 25 May 2020

Appellant: (Opponent 2)	Coenegrachts Substraat NV Walenweg 20 b 3770 Riemst (BE)
Representative:	Patentwerk B.V. P.O. Box 1514 5200 BN 's-Hertogenbosch (NL)
Respondent: (Patent Proprietor)	Cedar Spring International Ltd. P.O. Box 4649 Road Town, Tortola (VG)
Representative:	Altenburg, Bernardus Stephanus Franciscus DOGIO Patents BV PO Box 2350 1200 CJ Hilversum (NL)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 23 January 2019 concerning maintenance of the European Patent No. 2520159 in amended form.**

Composition of the Board:

Chairman	A. de Vries
Members:	C. Kujat
	W. Van der Eijk

Summary of Facts and Submissions

I. The appeal lies from the interlocutory decision of the opposition division of the European Patent Office, posted on 23 January 2019 concerning maintenance of the European Patent No. 2 520 159 in amended form pursuant to Articles 101(3)(a) and 106(2) EPC.

II. Opposition was filed under Article 100(a) EPC based on lack of novelty and lack of inventive step, Article 100(b) EPC based on insufficiency of disclosure, and Article 100 (c) EPC based on added subject-matter. The opposition division held that the patent as amended according to auxiliary request 1 and the invention to which it related met the requirements of the EPC, having regard inter alia to the following pieces of evidence :

D1: EP 1 767 086 A1
E1: US 5 421 138 A
E3: WO 92 / 04 256 A2
E7: US 3 828 470
F1: J.F. Thompson e.a.: "ComparativeEnergy Use of Vacuum, Hydro, and Forced AirCoolers for Fruit and Vegetables"
F3: M. Dijkema, J.W. van der Klugt: "Verslag Oriënterend Onderzoek Vacuümdrogen Bloembollen"

III. The appellant opponent 2 lodged an appeal, received on 25 March 2019, against this decision and simultaneously paid the appeal fee. The statement setting out the grounds of appeal was received on 21 May 2019.

IV. In preparation for oral proceedings the board issued a communication pursuant to Article 15(1) RPBA dated 5 March 2020 setting out its provisional opinion on the relevant issues. Oral proceedings were duly held on 25 May 2020.

V. The appellant opponent 2 requests that the decision under appeal be set aside and that the European patent No. 2 520 159 be revoked.

VI. The proprietor as respondent requests that the appeal be dismissed and the patent be maintained as amended during opposition (i.e. on the basis of auxiliary request 1) or, auxiliarily, the patent be maintained in an amended form on the basis of one of auxiliary requests 2-5 filed before the oral proceedings in the opposition proceedings and submitted in appeal with its reply to the statement setting out the grounds of appeal.

VII. Independent claim 1 according to auxiliary request 1 reads as follows:

"A method of transporting compost inoculated with mycelium of mushrooms, wherein the compost is transported at a temperature of less than 20°C ; characterized in that a mass of compost is subjected to subatmospheric pressure and water vapour is removed from the mass of compost resulting in a cooled mass of compost, the mass of compost being subjected to said subatmospheric pressure and for a time that results in a temperature of the mass of compost of less than 15°C, and said cooled mass of compost is transported; and wherein the mycelium of mushrooms is mycelium of mushrooms for human consumption."

VIII. The appellant argued as follows:
Auxiliary request 1 should not have been admitted into the opposition proceedings because it was late filed and not clearly allowable. The amendment in claim 1 extends the protection conferred by the patent. The subject matter of independent claim 1 is rendered obvious by a combination of D1 and any of F1, F3, E1, E3 or E7. Document SL01, and the alternative lines of attack against inventive step starting from E1, E3, F3 or E7 should be admitted into the appeal proceedings.

IX. The respondent argued as follows:
Auxiliary request 1 was originally filed with the respondent proprietor's reply to the notice of opposition as an auxiliary request, and thus, its refiling at a later date does not have any impact on its admissibility. The amendment in claim 1 does not extend the protection conferred by the patent. The subject matter of independent claim 1 is not rendered obvious by a combination of D1 and any of F1, F3, E1, E3 or E7.

Reasons for the Decision

1. The appeal is admissible.

2. *Background*

The invention concerns a method of transporting compost inoculated with mycelium of mushrooms for human consumption. In order to transport the compost at a temperature of less than 20°C, a mass of compost is subjected to subatmospheric pressure and water vapour is removed from the mass of compost resulting in a cooled mass of compost. The mass of compost is

subjected to said subatmospheric pressure and for a time that results in a temperature of the mass of compost of less than 15°C before said cooled mass of compost is transported. By evaporating water in the compost and substantially eliminating that evaporated water from the compost, the temperature of the compost can be lowered effectively and quickly (paragraph 6 of the published patent specification).

3. *Admissibility of auxiliary request 1*

The appellant contests admission of the auxiliary requests by the opposition division as it should have exercised discretion by applying the criterion of "clear allowability".

The Board disagrees. The present auxiliary request 1 is identical with auxiliary request 1 underlying the impugned decision. It is undisputed that an auxiliary request was filed on 30 October 2017 within the Rule 79(1) EPC time limit with the proprietor's timely reply to the opposition, and that an identical request, as regards its content, was filed as auxiliary request 1 with their submission of 23 August 2018. Thus the then opponents were aware of the subject of this request in due time at the earlier date of filing of this request. They can therefore not reasonably argue that they did not have sufficient opportunity to respond thereto e.g. by providing new facts and evidence. The situation described in the Guidelines E-V,2.1 and H-II, 2.7.1 therefore does not apply. This is not changed by the fact that the request was formally refiled at a later date (together with an adapted description). Consequently this auxiliary request was filed in due time in accordance with Rule 79(1) EPC, even if refiled at a later date and complemented with an adapted

description. As the request was filed in time the question whether it is "clearly allowable" is not relevant. The Board is therefore unable to see any error in law in the opposition division's consideration of this request (though it may have overlooked the date of first filing the request), let alone a serious error that might, for example, have justified an immediate cancellation of the decision under appeal.

Auxiliary request 1 was therefore validly admitted into the opposition proceedings by the opposition division.

4. Amendments

Concerning the requirements of Article 123(3) EPC, claim 1 of auxiliary request 1 differs from granted claim 1 in that the feature "the compost is transported at a reduced temperature" in its preamble was replaced with "the compost is transported at a temperature of less than 20°C". The appellant disputes the decision's finding that the amendment in claim 1 does not extend the protection conferred by the European patent.

4.1 It is common ground that the term "reduced temperature" in the deleted feature is a relative or indefinite term , as it is not stated in what way it is reduced, that is diminished or smaller. The appellant essentially argues that this original term can only be understood in the context of the final feature that "the cooled mass of compost is transported", as implying transport under active cooling. This would be so, as compost will otherwise inevitably heat up and would no longer be a cooled mass of compost. Such active cooling would therefore be implied by the deleted feature "the compost is transported at a

reduced temperature". However, by deletion of this feature, active cooling is no longer required.

4.2 While it is undisputed that there must be active cooling before transport (by means of subjecting the compost to subatmospheric pressure and removing water vapour) in order to arrive at a cooled mass of compost, the Board is not convinced that granted claim 1 is restricted to active cooling during transport of the compost. In the absence of any feature directed to such active cooling during transport, the claim also encompasses transport of previously cooled compost, albeit "at a reduced temperature", without further active cooling during the transport. This view is not altered by the appellant's reference to claim 11, since that claim is not directed to transport in an actively cooled truck. Instead, careful reading of the claim reveals that it concerns transport of a cooled mass of compost to a cooled truck. As the preposition "to" defines the destination of the transport, claim 11 is directed to transport of a cooled mass of compost by an unspecified type of transportation means before it reaches a cooled truck. That claim therefore clearly indicates that a cooled truck is no prerequisite for transporting a cooled mass of compost.

The Board is therefore unable to see any other limitation in the "reduced temperature" of granted claim 1 other than that the temperature during transport is diminished or smaller in some unspecified way. Replacing this indefinite term by the requirement that the temperature is below a specific value, is then seen by the Board as a clear limitation of claim scope vis-a-vis the original open formulation that was directed at any temperature.

4.3 This conclusion is not altered by the appellant's reference to the following example, which allegedly did not fall under the scope of the granted patent, but would now fall under that of claim 1 according to auxiliary request 1:

- receiving compost at surrounding temperature of 10 degrees,
- cool compost to below 0 degrees,
- heat compost to original surrounding temperature,
- transport compost at surrounding temperature of 10 degrees.

The Board shares the appellant's view that in the above example there was never any transport "at a reduced temperature". However, the example also does not relate to transport of a cooled mass of compost, so that it also would not fall within the scope of claim 1 as upheld. As the transport takes place at the starting temperature of the compost before cooling, i.e. at 10 degrees, the mass of compost is no longer cooled when it is transported. The Board is not convinced by the appellant's feature construction as also relating to a mass of compost which was cooled in the past and subsequently heated prior to transport, as it would concern the same mass of compost. Such interpretation is contrary to the skilled person's normal reading of the feature "said cooled mass of compost is transported" immediately following the vacuum cooling step, as meaning that the mass once cooled (in the cooling step) is then immediately (without intervening steps) transported. Such a reading is entirely in line with the overall disclosure of the patent, where the compost is transported in a cooled state (see e.g. paragraphs 0026, 0027 and 0029-0033).

4.4 From the above, it follows that the amendment to a temperature "of less than 20°C" in claim 1 does not extend the protection conferred by the patent, Article 123(3) EPC.

5. *Inventive Step*

The appellant disputes the decision's finding that the subject-matter of claim 1 of auxiliary request 1 involves an inventive step.

5.1 It is common ground that document D1 forms a suitable starting point for assessing inventive step. Likewise, it is undisputed that D1 discloses a method of transporting compost inoculated with mycelium of mushrooms, wherein the compost is transported at a temperature of less than 20°C, wherein a mass of compost is subjected to refrigeration and ventilation resulting in a cooled mass of compost of less than 15°C, and said cooled mass of compost is transported, and wherein the mycelium of mushrooms is mycelium of mushrooms for human consumption (D1, paragraphs 14 and 39).

5.2 It is also undisputed that the only distinguishing feature over D1 is that the mass of compost is subjected to subatmospheric pressure and water vapour is removed from the mass of compost resulting in a cooled mass of compost, the mass of compost being subjected to said subatmospheric pressure and for a time that results in a temperature of the mass of compost of less than 15°C.

5.3 The main point of contention in respect of inventive step concerns the formulation of the objective technical problem. In particular the appellant contends

that the objective technical problem relates to cooling only and therefore the relevant skilled person is someone specialized in the field of cooling. However, the Board is not convinced by the submission of the appellant that the objective technical problem is concerned exclusively with cooling, and that the skilled person is therefore a cooling expert. The reasons are the following:

5.3.1 In a first step, the Board must formulate the objective technical problem.

According to established case law, an objective definition of the problem to be solved by the invention should normally start from the problem described in the contested patent, and only if examination shows that the problem disclosed was not solved or if inappropriate prior art was used to define the problem, is it necessary to investigate which other problem objectively exists (CLBA, I.D.4.3.2, and the decision T 800/91 cited therein). The patent in suit, see paragraph 0002, is concerned with keeping compost cool during transport to avoid degradation resulting from heating. It takes D1 as its starting point, which is undisputedly directed at transporting cooled compost, and therefore represents appropriate prior art. According to the patent, the method according to D1 worked only satisfactorily for small blocks, and the problem is therefore formulated in the patent (paragraph 0004) as providing a method that allows for the transport of a large mass of compost. That problem would be solved by vacuum cooling the compost before transport (paragraph 0006: "This allows the method to be performed with relatively large (unitary) masses of compost...").

5.3.2 The Board shares the appellant's view that D1 already discloses the transport of cooled compost blocks comprising maximally 1000 kg of compost, and thus, already solves the problem of transport of a large mass of compost (D1, paragraph 20). According to established case law, the objective technical problem must therefore be reformulated (CLBA, I.D.4.4). The Board does not doubt that the patent does indeed solve the problem of transporting a large mass of compost. Even if, as argued by the appellant, cooling of large masses of compost might be easier in conventional cooling tunnels compared to subatmospheric pressure cooling (leaving aside that D1 does not disclose such tunnnels) this does not imply that vacuum cooling of large masses of compost would be impossible (statement of grounds, page 7, penultimate paragraph).

5.3.3 The Board is also not convinced by the appellant's definition of the problem as simply providing a more homogeneous, quick and effective cooling, or a better cooling (statement of grounds, page 7, penultimate paragraph). While these effects are mentioned in paragraph 0006 of the patent specification, a problem formulation based on these effects lacks any relationship to the main application to transport. However, the Board notes that the word "effective[ly]" used in that paragraph, which means "successful in producing a desired or intended result", must be understood in that context. In the context of paragraph 0006, the desired or intended result is transporting a large mass of compost, and thus, these effects are inextricably linked with the transport of a large mass of compost, as confirmed in that very paragraph ("This allows the method to be performed with relatively large (unitary) masses of compost..."). Thus, in that large masses of compost can be cooled faster and more

effectively (homogeneously), the overall process of transport is made more effective or efficient, either in cost or effort, see the sentence in paragraph 0006 which is bridging columns 1 and 2.

5.3.4 Consequently, the Board reformulates the objective technical problem as providing a method that allows for a more effective (or efficient) transport of a large mass of compost.

5.4 The Board must therefore now examine whether a skilled person would as a matter of obviousness combine the teachings of D1 and any of the documents E1, E3, E7, F1 or F3 in order to arrive at a method wherein the mass of compost is subjected to evaporative vacuum cooling.

The relevant skilled person is first and foremost defined by the field of the invention, which pertains to growing and transport of mushrooms and related products. That skilled person will therefore be an agricultural engineer specializing in all aspects of mushroom growth and processing, including handling and transport of compost containing mycelium. The Board agrees that because handling compost with mycelium involves cooling, that skilled person will have a good knowledge of cooling techniques as used in that field. However, they will not be or seek to involve specialists in cooling. This is because the invention is not concerned with cooling per se, that is with details or specifics of cooling, but rather with application of a particular known cooling technique to a specific field. Therefore the skilled person must be sought in the field of application (mushrooms), who will have a good working knowledge of cooling techniques in that field.

5.4.1 In accordance with established jurisprudence, the boards of appeal apply the "could-would approach". This means asking not whether the skilled person could have carried out the invention, but whether he would have done so in the hope of solving the underlying technical problem (CLBA, I.D.5). In the present case, it is common ground that vacuum cooling is per se well known. Therefore it can be argued that the skilled person could have arrived at the claimed method of transporting cooled compost by modifying the prior art, i.e. by combining the teachings of D1 and any of E1, E3, E7, F1 or F3.

5.4.2 However, the respondent proprietor holds the view that the skilled person would not do so. The Board agrees, since the evaporative vacuum cooling technique is disclosed in E1, E3, F1 or F3 in rather different contexts, either in the context of transport and storage of perishable fruits and vegetables (E1, E3, F3), or in the context of transport and storage of flower bulbs (in F3), and thus, in a method of transporting produce or end products. In contrast, D1 concerns the soil or raw material with mycelium that as an intermediate is used to grow an end product, i.e. mushrooms.

5.4.3 E7 does not lead to a different conclusion, since it concerns the preparation of mushroom spawn by means of vacuum drying, and thus does not relate to cooling for the sake of transport. Indeed there vacuum drying obviates refrigeration during shipping, column 4, lines 43 to 52. Moreover, mushroom spawn is not compost inoculated with mycelium, but mycelium before it is mixed with compost (E7, column 1, lines 54 and 55). Nor may vacuum drying be considered evaporative vacuum

cooling, since it comprises an additional reheating step (F3, page 5: "Vacuümdrogen = vacuümkoelen + naverwarmen", wherein the latter refers to reheating).

5.5 Even if were to be assumed that the skilled person, because of their knowledge of cooling techniques might have been familiar with the contents of any of these documents, the Board believes that it is beyond their normal skills to abstract and transfer those techniques to a new field of application. This might have been so if these documents had taught that vacuum cooling is generally equivalent to, and exchangeable with other known cooling techniques, e.g. those used in D1. That is not the case, as these documents are interested only in vacuum cooling as applied in particular (different) fields under particular conditions specific to those fields. The skilled person would therefore need to recognize that the vacuum cooling detailed there for storage and transport of end products, or in the preparation of mushroom spawn to avoid cooling, can be applied elsewhere and would be suitable in particular for making transport of compost inoculated with mycelium more efficient. In the Board's view this goes well beyond their limited skills of abstraction.

From the above it follows that a skilled person will not combine the teachings of D1 and any of E1, E3, E7, F1 or F3, and thus, arrive in an obvious manner at a method of transporting compost cooled by subjecting it to evaporative vacuum cooling. Therefore, claim 1 involves an inventive step, Article 56 EPC.

6. Admittance of document SL01 and further objections of lack of inventive step based on E1, E3 or F3

6.1 The summons to oral proceedings before the Board were issued on 5 February 2020, and therefore after entry into force of the Revised Rules of Procedure of the Boards of Appeal (RPBA 2020). With their letter of 20 April 2020, the appellant requested that a further document SL01, as well as objections of lack of inventive step based on documents E1, E3 or F3 as closest prior art be admitted into the proceedings.

6.2 These new lines of attack constitute an amendment to the appellant's case in the sense of Article 13 RPBA 2020 read in conjuction with Article 12(4) RPBA 2020. Pursuant to Article 13(2) RPBA 2020, any amendment to a party’s case made after notification of a summons to oral proceedings, in principle shall not be taken into account unless there are exceptional circumstances which need to be reasoned by the party concerned. The appellant justified its late submission only at the oral proceedings before the Board and by arguing that neither the document nor the objections could have been raised earlier since they were filed in response to the Board's preliminary opinion expressed in the annex to the summons to oral proceedings.

The Board does not follow that argument, as the Board's provisional opinion is based exclusively on the submissions made by the parties in their grounds and reply. Nor does the appellant identify any particular aspect that would be new or surprising to it, but rather appears motivated by the fact that the Board has expressed itself provisionally in favour of the respondent.

6.3 Thus, the Board sees no exceptional circumstances let alone ones that have been reasoned that justify the late filing of these submissions. Therefore it found it appropriate not to admit the appellant's further document and their objections of lack of inventive step based on E1, E3 and F3 into the proceedings, Article 13 (2) RPBA 2020.

7. In conclusion the Board finds that the appellant's contentions against the patent as upheld in amended form corresponding to auxiliary request 1 are without merit.

In particular, the Board decided not to overrule the decision of the opposition division to admit auxiliary request 1 into the opposition proceedings. Further, the amendments made to claim 1 of auxiliary request 1 do not extend the scope of protection in violation of Article 123(3) EPC. Furthermore, the subject matter of claim 1 of auxiliary request 1 involves an inventive step in the light of the cited prior art, Article 56 EPC. The Board does not admit the new lines of attack submitted after the summons to oral proceedings.

The Board thus confirms the decision under appeal.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Magouliotis A. de Vries

Decision electronically authenticated