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Datasheet for the decision of 26 January 2021

Case Number: T 0102/17 - 3.2.04

Application Number: 11700261.8

Publication Number: 2525691

IPC: A47J31/36, B65D85/804

Language of the proceedings: EN

Title of invention:
CAPSULE FOR THE PREPARATION OF A BEVERAGE COMPRISING AN IDENTIFICATION CODE

Patent Proprietor:
Société des Produits Nestlé S.A.

Opponents:
Krüger GmbH & Co. KG

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - main request (no) - auxiliary request (no)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

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Case Number: T 0102/17 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 26 January 2021

Appellant: (Opponent 1)	Krüger GmbH & Co. KG Senefelderstr. 44 51469 BERGISCH GLADBACH (DE)
Representative:	Loock, Jan Pieter Kutzenberger Wolff & Partner Waidmarkt 11 50676 Köln (DE)
Respondent: (Patent Proprietor)	Société des Produits Nestlé S.A. Entre-deux-Villes 1800 Vevey (CH)
Representative:	D Young & Co LLP 120 Holborn London EC1N 2DY (GB)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 5 December 2016 rejecting the opposition filed against European patent No. 2525691 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	A. de Vries
Members:	G. Martin Gonzalez
	C. Heath

Summary of Facts and Submissions

I. The appellant (opponent 1) lodged an appeal, received on 19 January 2017, against the decision of the opposition division posted on 5 December 2016 rejecting the opposition filed against European patent No. 2525691 pursuant to Article 101(2) EPC, and simultaneously paid the appeal fee. The statement setting out the grounds of appeal was received on 11 April 2017.

The opponent 2 also lodged an appeal against the above decision. They withdrew their appeal and their opposition with letter of 10 October 2017.

II. Two oppositions were filed inter alia on the ground of Article 100(a) EPC for lack of inventive step.

III. The opposition division rejected the oppositions having regard inter alia to the following evidence:

(D13) DE 201 21 494 U1
(D21) WO 02/071309 A2

IV. In preparation for oral proceedings the Board issued a communication, dated 14 October 2019, setting out its provisional opinion on the relevant issues.

With letter of 22 December 2020 the appellant-opponent 1 withdrew their request for oral proceedings and stated that they would not attend the oral proceedings.

Oral proceedings by videoconference before the Board were held on 26 January 2021, in the absence of the appellant-opponent 1.

V. The appellant-opponent 1 requests that the decision be set aside and the patent revoked.

The respondent-proprietor requests dismissal of the appeal and maintenance of the patent as granted, or auxiliarily maintenance of the patent according to auxiliary request 2 filed with the reply to the appeal on 21 August 2017. The respondent-proprietor withdrew the first auxiliary request during the oral proceedings.

VI. The wording of independent claim 1 of the requests relevant to this decision is as follows:

(a) Main request - Granted patent

"Capsule for the preparation of a beverage from beverage ingredients contained therein, comprising:
- a body (2) comprising at least one compartment for receiving said beverage ingredients and a flange-like rim (4) extending outwardly and transversally to a central axis (I) of said body;
- a circular membrane (6) for closing the opening which is sealed onto the flange-like rim,
- an optical code (7) containing binary information configured to be read by a camera (11) of a beverage producing device (20), characterized in that
the optical code (7) is a two-dimensional barcode having rectilinear borders (7a-7d) and which is inscribed in a circular area (8) concentric relative to the centre (O) of the membrane having a radius (R) at least 1.5 times, preferably at least two times, smaller than the radius (R_0) of the membrane."

(b) Second auxiliary request

Claim 1 as in the main request with the following features added at the end of the claim (emphasis added by the Board to indicate added text):

"...smaller than the radius (R_0) of the membrane wherein
the two dimensional barcode (7) is inscribed in a circular area (8) of radius (R) lower than 15 mm, preferably lower than 13 mm."

VII. The appellant-opponent 1 argued as follows:

The subject-matter of claims 1 and 2 of the main request (granted claims) lacks an inventive step in the light of the teachings of D13 and D21.

VIII. The respondent-proprietor argued as follows:

Claim 1 of the main request and the second auxiliary request, which is a combination of granted claims 1 and 2, involves an inventive step over the cited prior art.

Reasons for the Decision

1. The appeal is admissible

2. Background

The invention is concerned with a capsule with a code for identifying the capsule in the beverage production device and for providing information for beverage preparation. It is also directed to the associated system for beverage preparation, see patent specification paragraph [0001]. The claimed capsule comprises an optical two-dimensional barcode confined within a certain area on the membrane capsule. The location and size of the barcode is aimed at ensuring an automatic, simple and reliable identification system, since the code can be identified without flattening the package and without necessarily moving the device relative to the capsule, see paragraphs [0016]-[0017].

3. Main request - Inventive step

The appellant-opponent 1 challenges inventive step starting from D13 in conjunction with D21.

3.1 Both parties consider D13 as a suitable starting point for the assessment of inventive step. Document D13 discloses a capsule for the preparation of a beverage, with a body 1, closed by a circular membrane 2. An optical code 3, formed of concentric circles, containing information to be read by a camera is inscribed in a circular area concentric relative to the centre of the membrane 2, see D13 figure 1a, page 8, lines 10 to 13.

It is not in dispute that D13 does not disclose a two-dimensional optical code with rectilinear borders. The known code of D13 is inscribed in a concentric circular area having a radius that is clearly smaller than the radius of the membrane. However, the specific choice of dimensions, 1.5 times smaller than the radius of the membrane, is not directly and unambiguously derivable by measurement of the schematic drawing of figure 1a of D13.

The subject-matter of claim 1 thus differs from D13 in that the code is a two-dimensional optical code with rectilinear borders and in the specific choice of radius dimensions of at least 1.5 times smaller than the radius of the membrane.

3.2 According to established case law the technical problem has to be determined on the basis of objectively established facts, since for the determination of the objective technical problem, only the effect actually achieved vis-à-vis the closest prior art should be taken into account, see Case Law of the Board of Appeal, 9th edition 2019, I.D.4.1. When formulating the objective technical problem, it is thus necessary to consider the factual technical contribution of the features in terms of their technical effect over and above the corresponding features of the prior art.

3.3 In this connection, no technical effect can be associated to the specific choice of a radius dimensions of at least 1.5 times smaller than the radius of the membrane over and above what is already achieved by the readable code in D13.

In this respect, the respondent-proprietor, referring to the originally filed application (PCT publication WO 2011/089048 A1) pages 3-4 and 8, puts forward that the concentric position of the circumscribing circular area and its small size facilitates the use and reading of the code. Due to its central position, there is no need to orientate the capsule in the capsule holder. The machine reader will always find the code in the membrane central area, no matter its orientation. Due to its small size, the code is positioned in an essentially flat area of the membrane and can therefore be identified without flattening the package, see page 3, line 33 to page 4, line 10 of the PCT publication.

It is however readily apparent from the location and dimensions of the known code as depicted in figure 1a of D13 that these effects are also achieved by the known code. The code of D13 is concentric to the membrane. There is therefore also no need to orientate the capsule of D13 in the capsule holder. D13 also describes that the known code is located in an essentially flat surface of the capsule "...daß die Kennung rotationssymmetrisch strukturiert ist und auf einer im wesentlichen ebenen Fläche des Objektss angeordnet ist", see page 3, lines 31-34 of D13. It can thus also be read without flattening the package.

The Board moreover notes with respect to the original disclosure that no special significance appears to be given to the specific choice of a circular area having a radius (R) at least 1.5 times smaller that the radius (R0) of the membrane, as compared to the known area depicted in figure 1a of D13. The above effect, alleged by the respondent-proprietor, that the small size of the area avoids the need to flatten the package, is associated in the original disclosure to a size

corresponding to a radius smaller than the membrane without further qualification, see original disclosure, page 3, line 35 to page 4, line 10, this size limitation being already met by the known identification code of D13. There seems to be no indication in the application as filed that the selected subrange provides any particular technical effect over and above that achieved by "a radius smaller than the radius of the membrane". The Board is also unable to identify any.

Thus, no technical effect can be associated with this differentiating feature for the formulation of the objective technical problem.

3.4 The respondent-proprietor also submits that the claimed dimension allows off-centring of the code with respect to the centre of the membrane. This provides several manufacturing advantages, like allowing wider tolerances for centring the membrane during capsule manufacturing or for code printing, see PCT publication page 8, lines 12-15. However, the claim is not limited to codes that allow off-centring. This feature is not claimed. The submitted manufacturing advantages are described in the original application in connection with the embodiments of figures 2c, 2d, where the relative smaller dimensions of the 2D code with respect to the circumscribing circle allows off-centring, see PCT publication page 7, line 35 to page 8, line 15. These relative dimensions are however not claimed. The embodiments of figures 2a, 2b where the code uses up the space inside the circle do not allow off-centring. These embodiments do not achieve these advantages although they also fall under the scope of granted claim 1. These effects are thus not achieved by the features required by the subject-matter of claim 1.

3.5 It follows that the only differentiating feature that achieves a technical effect over and above the circular code known from D13 is the provision of a two-dimensional barcode with rectilinear borders.

As explained by the respondent-proprietor, the circular barcode of D13 is a one dimensional barcode since it can only be read in one direction i.e. the radial direction. In contrast, a two-dimensional barcode, as claimed, is a term in the art meaning that the barcode is a code in which data is recorded in two directions, which as a consequence has a larger data capacity. The associated effect is thus the ability to encode more information. The objective technical problem that can be formulated on the basis of this effect is therefore how to increase the information that can be encoded.

3.6 Document D21 is concerned with decoding damaged optical codes in general. It teaches in respect of 2D bar codes with rectilinear borders that these have a number of advantages, see page 1, lines 30-35, in particular that "2D bar codes are more compact and take up less label area than 1D codes while storing far more data". Thus, D21 provides the same technical advantages as are sought by the skilled person, who would therefore find it very relevant to solve the above formulated problem.

From the further information in D21, it is also readily evident for the skilled person that the codes taught therein can also be used in the capsule of D13 without departing from the central teachings of the latter document. The bar codes of D21 and their associated uses are not restricted to a particular code size. As described on page 2, lines 30-34, 2D bar codes are available in a number of different array sizes. As also

described in that passage, they are provided with finder patterns (e.g. the bottom and left edges of the code being solid black bars, forming an L-shaped pattern). Finder patterns allow the code reader algorithm to determine code orientation, see D21, page 2, lines 9-10. From this information it is readily apparent to the skilled person that the 2D codes of D21 are applicable to the dimensions of customary coffee capsules, as that of D13. It is also immediately apparent that they meet the central advantage of the code of D13 to avoid the need to orientate the capsule in the capsule holder, since the known decoding algorithms determine the code orientation by software and read the information without physically orienting the code.

Hence, the skilled person in the light of the teachings of D21 would consider the replacement of the circular code of D13 by the 2D bar code taught by D21 as a matter of obviousness in order to increase the quantity of encoded information. In so doing they would ensure that the 2D code is then placed in a central area as shown in figure 1a of D13 and of similar size. D13 may not specify any particular size but it is clear from figure 1 that it is significantly smaller than the diameter of the capsule membrane. A suitable choice would be a central (circular) area of radius, say 1.5 times smaller than the radius of the membrane. As stated no effect that is not already known from D13 can be associated with this value, which is therefore nothing other than a routine choice in carrying out D13's teaching on the location of the code. The skilled person would thus arrive at all the features of granted claim 1 without an inventive step.

3.7 The Board thus concludes that granted claim 1 does not involve an inventive step in the sense of Article 56 EPC.

4. Second auxiliary request - Inventive step

Independent claim 1 is a combination of granted claims 1 and 2. It is limited vis-a-vis claim 1 of the main request by further specifying that the two dimensional bar code is inscribed in a circular area of radius lower than 15 mm. The claim thus defines a limiting circular area for the bar code having a radius of 15mm corresponding to a diameter of 3 cm.

Inspection of coffee capsules of the shape and type shown in the figures of D13 and which have been commonly available on the market since well before priority will show that these have a membrane diameter of about 3 cm, corresponding to what is claimed. Therefore, when the skilled person realizes a capsule as shown in the figures of D13, but modified in obvious manner by using a 2D rectilinear bar code as taught in D21, they would obviously choose these dimensions for the capsule. In this manner they will arrive at the subject-matter of claim 1 of the auxiliary request 2 without exercising inventive skill.

The Board thus also holds that claim 1 of the auxiliary request 2 does not involve an inventive step in the sense of Article 56 EPC.

5. For the above reasons the Board finds that the decision was wrong in affirming an inventive step and that therefore it must be put aside. Furthermore, taking into consideration the amendments made by the respondent-proprietor, the patent and the invention to which it relates do not meet the requirements of the Convention and the patent must be revoked pursuant to Article 101(3)(b) EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

G. Magouliotis A. de Vries

Decision electronically authenticated