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**Datasheet for the decision
of 19 July 2021**

Case Number: T 0026/18 - 3.3.06

Application Number: 08015030.3

Publication Number: 2048283

IPC: D21H27/40

Language of the proceedings: EN

Title of invention:

Apparatus for pasting two or more plies for manufacturing tissue products

Patent Proprietor:

INDUSTRIE CARTARIE TRONCHETTI SpA

Opponent:

Essity Hygiene and Health Aktiebolag

Headword:

Apparatus for manufacturing tissue/CARTARIE TRONCHETTI

Relevant legal provisions:

EPC Art. 54, 56

Keyword:

Novelty - (yes)

Inventive step - non-obvious modification

Decisions cited:

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 0026/18 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 19 July 2021

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Decision under appeal: **Interlocutory decision of the Opposition**
Division of the European Patent Office posted on
7 November 2017 concerning maintenance of the
European Patent No. 2048283 in amended form.

Composition of the Board:

Chairman J.-M. Schwaller
Members: P. Ammendola
J. Hoppe

Summary of Facts and Submissions

I. The appeal was filed by the opponent against the interlocutory decision of the opposition division to maintain European patent Nr. 2 048 283 in amended form with the claims according to the main request filed with facsimile of 4 August 2017, claim 1 of which (hereinafter referred to as "maintained claim 1") reads as follows:

"1. An apparatus for pasting two or more plies for providing tissue-type products, comprising at least one first embossing roller which cooperates with at least one second embossing roller, characterized in that said first embossing roller comprises a plurality of tips alternated with a plurality of continuous protrusions, said second roller comprising a plurality of tips alternated with a plurality of continuous protrusions, the arrangement of the tips and of the continuous protrusions of said first roller being reproduced identically and mirror-symmetrically on said second roller."

Dependent claims 2 to 5 define preferred embodiments of the apparatus of claim 1.

II. In the statement of grounds of appeal the appellant submitted that the subject-matter of maintained claim 1 was not novel and did not involve an inventive step over the prior art disclosed in **D1** (JP 2004-066573 A and its machine translation in English).

III. The patent proprietor (hereinafter "the respondent") filed, *inter alia*,

- three sets of amended claims as **first to third auxiliary requests** with the reply to the appeal;
- four additional sets of claims as **fourth to seventh auxiliary requests** with letter of 25 July 2019, and
- a new machine translation in English of D1, labelled as **D1A**, with letter of 13 August 2020 (hereinafter "D1/1A" is used to indicate the figures of D1 and the relevant passages in D1A).

In reply to the preliminary opinion issued by the board pursuant to Article 15(1) RPBA the appellant withdrew its request for oral proceedings. These were cancelled.

- IV. From the content of the file the board understands that the appellant requests that the decision under appeal be set aside and that the patent be revoked.

The respondent requests that the appeal be dismissed or, auxilially, that the patent be maintained based on one of the first to third auxiliary requests filed with the reply to the appeal or based on one of the fourth to seventh auxiliary requests filed with letter of 25 July 2019.

Reasons for the Decision

Main request (patent as upheld by the opposition division)

1. Construction of claim 1
 - 1.1 Hereinafter the features of the apparatus defined in claim 1 are referred to using the following labelling:

F0: an apparatus for pasting two or more plies for providing tissue-type products, comprising

F1: at least one first embossing roller which cooperates with at least one second embossing roller;

F2: said first embossing roller comprising a plurality of tips alternating with a plurality of continuous protrusions;

F2*: said second roller comprising a plurality of tips alternated with a plurality of continuous protrusions,

F3: the arrangement of the tips and of the continuous protrusions of said first roller being reproduced identically on said second roller and

F4: the arrangement of the tips and of the continuous protrusions of said first roller being reproduced mirror-symmetrically on said second roller.

1.2 From the parties' submissions it is undisputed that feature F1 (which requires that the two embossing rollers of the claimed apparatus "*cooperate*", presumably to the previously mentioned "*pasting*") plausibly implies that the actual "*pasting*" occurs where the two rollers are directly faced. It is also undisputed that the sole difference implied by the use of the terms "*tips*" and "*continuous protrusions*" (in features F2/F2*, F3 and F4) is that the latter term designates a first sort of embossing protrusions whose land area is larger than that of second sort of embossing protrusions designated as "*tips*".

1.3 The appellant stressed that features F2/F2* stipulated that both the first and second embossing roller "*comprise*" a plurality of tips alternating with a plurality of continuous protrusions. In its view, the term "*comprise*" in general allows further elements to

be present and also the term "*alternated with*" as such would not exclude further elements (e.g. a further kind of tips and/or a further kind of continuous protrusions). Moreover, the fact that the description mentioned in paragraph [0019], that "*each roller has a plurality of tips 4 which are alternated with a plurality of continuous protrusions 5 and with regions or compartments 6 without tips or continuous protrusions*" would imply that, beside the tips and continuous protrusions, there might be other elements such as the regions or compartments 6. As the language of features F2/F2* would not exclude such regions or compartments 6, it would also not exclude that small protuberances could be disposed in the regions or compartments 6. The appellant also stressed that the features F3 and F4 - also when considered in the light of the definition of "*mirror-symmetrical pattern*" in paragraph [0025] of the patent in suit - would only refer to the arrangement of the (first kind of) "*tips*" and "*continuous protrusions*" of the preceding features F2/F2*, thereby also not imposing any exclusion as to the possible presence of further tips (and/or further continuous protrusions) on the rollers of the claimed apparatus.

- 1.3.1 The board notes however that, as indicated in the board's communication of 14 May 2021 and undisputed by the appellant, the required simultaneous occurrence of features F3 and F4 immediately appears ambiguous to the skilled reader of claim 1 *per se*. Indeed, "identity" **and** "mirror symmetry" between two patterns (in this case between the two arrangements of protrusions/tips on the surfaces of the two embossing rollers) could simultaneously occur only in case of highly symmetrical arrangements. When the embossing protrusions/tips are distributed to form an even slightly asymmetrical

pattern, then the mirror-symmetrical pattern would inevitably be different from the first one.

Hence, a skilled person (attempting to assess novelty of the claimed subject-matter and the presence of an inventive step) must turn to the whole patent disclosure in order to reasonably construe the features of the claimed apparatus expressed by the wording "*the arrangement of the tips and of the continuous protrusions of said first roller being reproduced identically and mirror-symmetrically on said second roller*" (i.e. the features F3 and F4).

- 1.3.2 In the board's view, a skilled person would derive from the whole disclosure in paragraphs [0018] to [0026] and in Figures 1 to 3 of the patent as maintained (these paragraphs are identical to those with the same numbering in the patent as granted) at least one clear indication as to what the ambiguous terms "*identically and mirror-symmetrically*" actually mean in the patent in suit, namely that in the arrangements of the protrusions of different land area present on the two rollers (which are manifestly not "mirror-symmetrical" in the conventional sense of this term, as apparent from Figure 2) must be such that when synchronically operating the two rollers - as reasonable when using apparatuses in which the two embossing rollers "cooperate" to the "pasting" - the "*tips*" (i.e. the smaller protrusions) on the first roller become faced to the "*continuous protrusions*" (i.e. the larger protrusions) on the second roller and *vice versa* (i.e. the "*continuous protrusions*" on the first roller become faced to tips on the second roller). The board notes in particular that the definition in the last sentence in paragraph [0025] (reading: "[o]f course, the expression "*mirror-symmetrical pattern*" here means that the second

*roller has a pattern that correspond to the first roller but in which **the** tips are replaced by continuous protrusions and **the** continuous protrusions are replaced by tips",* emphasis added by the board) renders apparent that such requirement applies to "the" tips (i.e. all the smaller protrusions) and "the" continuous protrusions (i.e. all the larger protrusions) of the embossing rollers. Also the embodiment depicted in Figure 2 is in agreement with such conclusion.

Hence, the wording "**the** tips" and "**the** continuous protrusions" defining features F3 and F4 in claim 1 can only reasonably be construed as requiring that the arrangements of protrusions on the two rollers must be such that (during the operation of the apparatus) all the smaller protrusions present on the first roller are faced to the larger protrusions on the second roller and all the larger protrusion on the first roller are faced to the smaller protrusions on the second roller and *vice versa*.

- 1.3.3 The board notes further that this construction of features F3 and F4 also confirms that features F2/F2* of claim 1, which require the mandatory presence of two sorts of embossing protrusions (i.e. "*the tips*" and "*the continuous protrusions*") that must be "*alternated*", are also meant to implicitly exclude the presence of other sorts of embossing protrusions on the two rollers. The fact that the verb "comprise" is used to define features F2/F2* is not necessarily in contradiction with such conclusion already when considering claim 1 *per se*. Moreover, when looking at the description in paragraph [0019] the skilled reader finds indeed disclosed therein that the rollers may also "comprise" further elements, however the examples offered for such further elements - namely the "*regions*

or compartments 6 without tips or protrusions" explicitly indicated in paragraph [0019] - are different from the embossing protrusions (that are instead designated as "*tips*" and "*continuous protrusions*").

1.3.4 Of course, in view of the above conclusions the board also finds that claim 1, when construed in the light of the whole patent disclosure, defines an apparatus in which no tip (i.e. no embossing protrusion of smaller lad area) present on one embossing roller is faced to another tip (or to regions without tips or protrusions) on the other roller. In other words, claim 1 does not imply or allow for the possible presence of further tips on one roller that are not faced to continuous protrusions on the other roller (or of further continuous protrusions on one roller that are not faced to tips on the other roller).

2. Novelty (Article 54 EPC)

2.1 Claim 1

The novelty objection raised is based on Figures 4 to 6 and the corresponding description in D1A (see from the last section on page 4 starting with "(2) Manufacturing Method of Laminate Sheet", to the first section on page 6).

2.1.1 The board notes however that Figure 6 does not appear to refer to the apparatus of Figure 4. Indeed, the description of Figure 6 starts in line 14 of page 6 of D1A with the title wording "(3) Example of Laminate Sheet of Other Adhesive Form" and confirms that this Figure presents views of "the laminate sheet" (and not the contact profile of the two rollers as e.g. that in

Figure 2 of the patent in suit). Hence, it is apparent that the sheet with the structure of Figure 6(b) is not a further product of the apparatus of Figures 4 and 5 of D1/1A, but rather a first example (the second one being that of Figure 7) of the "nested" products obtainable by the apparatus of Figure 8 of D1/1A. The board finds therefore that feature F1 of claim 1 is missing in the apparatus (of Figure 8) that D1/1A discloses for producing a sheet with the structure of Figure 6(b).

2.1.2 Thus, the subject-matter of claim 1 is found novel vis-à-vis D1 (Article 54 EPC).

2.2 For the same reasons given above also the preferred embodiments of the apparatus of claim 1 that are defined in the remaining claims 2 to 5 are found to comply with Article 54 EPC.

3. Inventive step

3.1 The closest prior art

The board notes that the appellant identified the closest prior art in the same embodiment of D1/1A that it alleged to be novelty destroying, i.e. the apparatus (in which the two rollers cooperate) disclosed in Figures 4 and 5 in combination with the "nested" structure of the sheet of Figure 6. However, as already indicated above, it is apparent to the board that the sheet of Figure 6 is rather (implicitly disclosed in D1/1A as) produced from the apparatus of Figure 8 of D1/1A (in which the two rollers do not come in close contact, i.e. do not cooperate to the pasting of the plies).

Hence, the board concludes that the closest prior art is indeed represented by the apparatus of Figures 4 and 5 disclosed in D1/1A, however only to be considered in connection with the description thereof, in particular the passage in the middle of the third paragraph on page 5 reading "*[i]ncidentally, the large and small projections 55a, 55b (57a, 57b) correspond to the aforementioned dimensions of the macro embossed convex portion 13 (23) and the micro embossed convex portion 14 (24), and these embossed convex portions 13, 14 , 24) in the same manner as in the first embodiment*" (emphasis added by the board) which refers back to the "tip-to-tip" arrangement of the cooperating rollers (i.e. resulting in a sheet with the structure exemplified e.g. in Figure 2(b) of D1/1A).

3.2 Non-obviousness of the subject-matter of claim 1

In view of this conclusion as to the prior art of departure, it is immediately evident to the board that two modifications are simultaneously required to arrive at the subject-matter of claim 1:

- (a) to redesign (in number and/or dimensions) the protrusions on both rollers of D1 such that all the smaller protrusions (tips) on one roller can be faced to the larger protrusions (continuous protrusion) on the other roller and *vice versa*,
- (b) to synchronise the two rollers so as to achieve that the smaller protrusions (tips) indeed become faced to the larger protrusions (continuous protrusion) on the other roller.

However, neither D1/1A nor the common general knowledge of which the board is aware is suggestive of this combination of modifications, even in the hypothetical case that the skilled person was searching for a mere

alternative to the prior art of departure. In particular, D1/1A leads explicitly towards a totally different modification (to produce a sheet with "nested" cavities such as that of Figure 6(b)): namely that of abandoning the apparatus with cooperating rollers of Figure 4, in favour of the substantially different apparatus of Figure 8 in which the two rollers are not anymore directly faced.

3.2.2 Hence, if only for this reason the board rejects as unconvincing the appellant's objection in view of Article 56 EPC, that D1/1A would render obvious the subject-matter of claim 1 as maintained.

3.3 For the same reasons given above also the preferred embodiments of the apparatus of claim 1 defined in dependent claims 2 to 5 are found not objectionable in view of Article 56 EPC.

4. The oral proceedings having been cancelled in consequence of the withdrawal of the appellant's request for oral proceedings with letter of 14 June 2021 (in reply to the communication of 14 May 2021 issued the board pursuant to Article 15(1) RPBA), the appeal fee shall be reimbursed at 25% under the provisions of Rule 103(4)(c) EPC.

Order

For these reasons it is decided that:

1. The appeal is dismissed.
2. The appeal fee is to be reimbursed at 25%.

The Registrar:

The Chairman:



A. Pinna

J.-M. Schwaller

Decision electronically authenticated