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**Datasheet for the decision  
of 29 March 2019**

**Case Number:** T 0524/15 - 3.2.05

**Application Number:** 06711441.3

**Publication Number:** 1855876

**IPC:** B31F1/07

**Language of the proceedings:** EN

**Title of invention:**

Embossing roller, embossing device including said roller and paper article produced with said embossing device

**Patent Proprietor:**

FABIO PERINI S.p.A.

**Opponent:**

Essity Hygiene and Health Aktiebolag

**Relevant legal provisions:**

EPC 1973 Art. 54(1), 56

**Keyword:**

Novelty (yes)

Inventive step (no: main request; yes: auxiliary request 7)

Admissibility (no: first auxiliary request)

**Decisions cited:**

T 0176/97



**Beschwerdekammern**

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Case Number: T 0524/15 - 3.2.05

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.05**  
**of 29 March 2019**

**Appellant:** FABIO PERINI S.p.A.  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 13 January 2015  
revoking European patent No. 1855876 pursuant to  
Article 101(3) (b) EPC.**

**Composition of the Board:**

**Chairman** M. Poock  
**Members:** O. Randl  
D. Rogers

## **Summary of Facts and Submissions**

- I. The patent proprietor appealed against the decision of the opposition division to revoke European patent No. 1 855 876 ("the patent").

The opposition division was of the opinion that the amendments leading to claim 1 of the main request and auxiliary requests 1 to 4 and 7 to 10 did not comply with the requirements of Article 123(2) EPC and made the claims unclear, that claim 1 of auxiliary request 5 lacked novelty and that claim 1 of auxiliary requests 11 and 12 did not involve an inventive step.

Among the documents cited by the opposition division the following are relevant for the appeal proceedings:

X1: DE 195 34 812 A1;  
X2: EP 0 922 422 A1;  
X4: EP 0 684 132 A1;  
X14: EP 0 893 242 A1.

- II. The appellant (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained upon the basis of the main request, or alternatively, upon the basis of either the first auxiliary request, or the seventh auxiliary request: the main request and seventh auxiliary request were both filed under cover of a letter dated 13 May 2015, the first auxiliary request was filed at the oral proceedings before the board. The appellant withdrew its second to sixth and eighth to fourteenth auxiliary requests.

The respondent (opponent) requested that the appeal be dismissed.

III. The independent claims of the main request read as follows (the feature references used by the board are indicated in square brackets):

"1. [1-1] A roll of wound decorated web material [1-2] comprising at least two plies (V1, V2) of tissue paper joined together by gluing and forming at least one multi-ply web, characterized in that [1-3] said roll is divided into sheets by perforation lines (L), [1-4] said sheets have a principal embossed pattern (D), [1-5] in a substantially intermediate position with respect to the surface of the sheets, and [1-6] secondary embossed patterns (V) of smaller dimensions arranged along edge lines of the sheet and interrupted by said edge lines, and that [7] said secondary patterns of smaller dimensions overlap said perforation lines; [1-8] said secondary patterns (V) forming a frame surrounding a central decorative motif formed by said principal pattern (D)."

"14. [14-1] A roller (21) for processing plies of web material, especially plies of paper, comprising [14-2] raised areas defining embossing patterns on the cylindrical surface of the roller, characterized by: [14-3] a series of circumferential or annular bands (21c) spaced apart from one another, [14-4] inside which a first secondary embossing (P) or printing pattern (D) is produced; [14-5] a series of longitudinal bands (21L), extending longitudinally along said roller, spaced apart by constant pitches, [14-6] inside which a second secondary embossing pattern (L) is produced; [14-7] said circumferential and longitudinal bands defining squares inside each of which an intermediate principal embossing pattern is produced; and wherein [14-8] said longitudinal bands are inclined with respect to the axis of the roller."

Claims 1 of auxiliary request 1 differs from claim 1 of the main request by the additional feature "and wherein said at least two plies are glued together at the level of at least some of the protuberances forming the principal embossed pattern and the secondary embossed patterns".

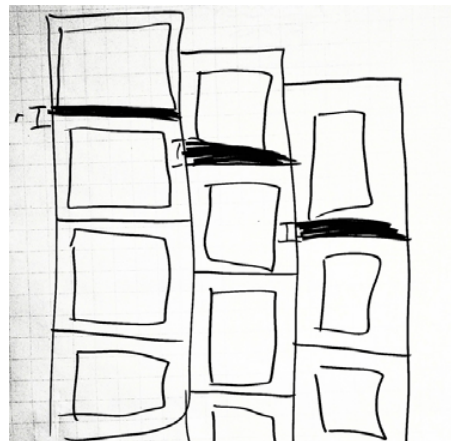
Claim 13 of auxiliary request 1 is identical to claim 14 of the main request, as is the only independent claim of auxiliary request 7.

IV. The appellant argued as follows:

(a) Main request: novelty of claim 14

The subject-matter of claim 14 is clearly new over the disclosure of document X14.

A "band" must be something continuous. The thicker black regions in the respondent's sketch:



do not fulfil this condition.

The patent clearly states that the perforation is to be carried out within the band of embossed protrusions.

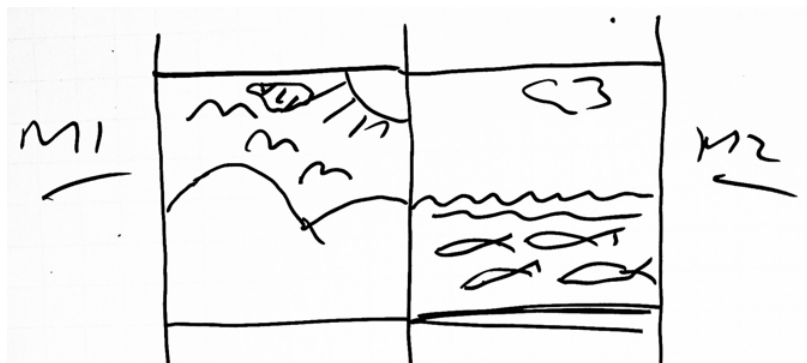
The perforation is done along a straight line. In a situation like the one sketched by the respondent, it would not be possible to perforate the sheet with a perforator.

Paragraph [0015] of the patent discloses that "further secondary embossed or printed patterns are produced overlapping the perforation lines". This is not possible if the band is formed by staggered sections.

In document X14, there is no unambiguous teaching that the adjacent bands in Fig. 5 are offset to such an extent that they touch each other.

The teaching of col. 4, lines 49 to 57, is different from what the respondent (and the board in its preliminary opinion) have understood this paragraph to disclose. Col. 4, lines 8 to 10, refers to two motifs M1 and M2. These patterns can be aligned (Figs. 3 and 4) or shifted (Fig. 5; col. 4, lines 49 to 51). According to col. 4, lines 52 to 57, the way in which the motifs are chosen depends on the nature of each motif. What is suggested is that the patterns (rather than the offset) are to be chosen such that unwanted vibrational phenomena are avoided.

For instance, if the first pattern shows birds flying above a hill, such that most of the embossing is at the top and almost none is at the bottom of the pattern (see the following sketch), the adjacent pattern is to be chosen such that most of the embossing is at the bottom and a little is at the top, for example, fish in the sea:



Document X14 does not teach to shift the pattern more or less, depending on the vibration that is to be obtained.

The same holds true in a staggered configuration, such as the one shown in the following sketch:



Here the second pattern has to have a denser top and a less dense bottom to produce the desired vibrational phenomena.

Document X14 does not suggest adjusting the offset.



(b) Main request: inventive step of claim 1, starting from document X1

The subject-matter of claim 1 is inventive over the disclosure of document X1.

It is true that aesthetic creations are not patentable, but if a technical solution allows an aesthetic effect to be improved, it may be patentable.

Paragraph [0011] of the patent explains that the choice of a simple pattern of geometrical dots may help to avoid vibrational problems, which is exactly what document X1 teaches. The features of claim 1 define a different pattern, which provides a better aesthetic effect, and which is formed by a central decoration and a frame. The result of the particular choice is a nicely decorated pattern that also alleviates vibrations. As the frame is formed by smaller patterns, the total force exerted during manufacturing is reduced. There are advantages in terms of the product (the separation line is neater) but also in terms of manufacturing (vibration). So the product is more satisfying from an aesthetic point of view without there being any increase in vibrations during the manufacturing. Put differently, those skilled in the art would not have adopted a pattern such as the one of Fig. 4 because they would have expected it to give rise to vibrational problems. The invention overcomes this drawback by using small protrusions forming the frame.

Moreover, the small size of the protrusions allows synchronisation problems between the embossing and the perforation to be hidden: a shift is not easily perceived by a user.

A further advantage of smaller patterns is linked to the way in which the plies are joined together. The skilled person would have known that glue is applied on the top of the embossed patterns. Although not explicitly mentioned, this is implicit in claim 1. A small pattern along the edges and perforations results in less glue being needed. It is not obvious to provide portions that allow the gluing to be optimised in the shape of a frame around a central pattern.

The view that the invention adds a bigger central pattern is incorrect. Rather, the small embossed patterns are removed from the central position so that they form a frame. This is done for aesthetic purposes, but it gives rise to technical problems that have to be addressed. These problems are solved by using a smaller pattern. The respondent has not explained why the skilled person would have considered hiding the perforations with a frame.

The objective technical problem solved by the invention (starting from document X1) is to have a decorated product with a better aesthetic appearance that can be manufactured without generating dynamic stresses in the embossing device.

Although there is no discussion in the patent of how the dynamic stresses are to be measured, the skilled person would have been aware of these problems. The patent comprises a more extensive disclosure of how the gluing is to be improved.

Document X1 does not disclose feature 1-8 but seeks to reduce differences between the border regions and the central region (col.8, lines 19-33). Therefore, document X1 points away from the claimed solution.

(c) First auxiliary request: admissibility

The first auxiliary request should be admitted.

Claim 1 of the first auxiliary request is based on claims 1 and 5 of the main request. The request should be admitted because it is based exclusively on claims already on file from the beginning. In decision T 848/09 the board considered the filing of the present main request to be a legitimate and normal response to the decision to revoke the patent, because the amendment concerned the addition of a feature of a dependent claim which further limited the subject-matter. There are decisions saying that although each amendment could have been filed during the proceedings at first instance, this does not mean that any additional request must be rejected. Otherwise, the board would not have any discretion and would have to dismiss any request filed during the appeal proceedings. The appellant also referred to the very extensive discussion of all the claims (including the dependent claims) filed by the respondent. Considering that the appellant has only combined existing claims and has not made amendments based on the description, the amendment does not take the respondent by surprise.

When asked by the board if the new request could be admitted in the light of Article 13(3) of the Rules of Procedure of the Boards of Appeal (RPBA), the appellant declared that many of the arguments related to the main request had focused on gluing (see pages 5 and 6 of the statement of grounds of appeal). The reason for filing the first auxiliary request is to introduce those features related to the place where the glue is applied into claim 1 to make features already implicit in

claim 1 explicit. So the case has not really changed; the arguments were presented in the statement of grounds of appeal.

(d) Seventh auxiliary request: inventive step

The subject-matter of claim 1 is inventive over the disclosure of document X14.

The teaching of col. 4, lines 49 to 57, is not to shift the patterns but to choose them to reduce vibrational problems. A continuous band, rather than one divided in several steps, can be used in a machine to produce rolls of paper that are subsequently perforated. There is no such need in document X14 because this document concerns folded napkins and not perforated rolls of paper. Therefore, there is no reason to provide a shift that allows a continuous band to be obtained. If the shift is understood as an option for avoiding vibrational problems, the obvious option is to use a maximum shift. The patent, however, shifts the patterns as little as possible to still maintain a continuous line, because the paper is to be perforated.

When asked by the board whether there was a drawing showing an embodiment of claim 1, the appellant referred to Fig. 3. The inclination is the result of shifting sections. This can be seen via the offset of the different portions with respect to axis A.

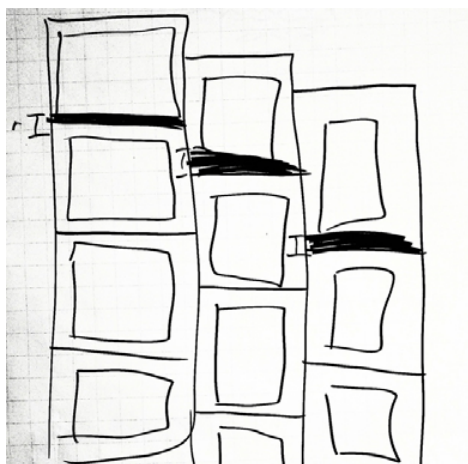
The patent clearly says that the inclination is limited to allow for a single perforator to be used. There is no need to add features to the claim, because the person skilled in the art would have understood to what extent the band could be inclined.

V. The respondent argued as follows:

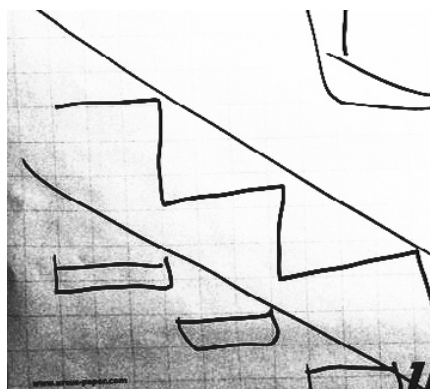
(a) Main request: lack novelty of claim 14

The subject-matter of claim 14 lacks novelty over the disclosure of document X14.

A roller arrangement for embossing a pattern is shown in Fig. 2. There is also an embodiment where the patterns are shifted. The arrangement shown in Fig. 5 provides the "longitudinal bands" of claim 14. When patterns such as the one shown in Fig. 3 are used and shifted, even quite substantially, those longitudinal bands are still obtained. Several facts should be noted. The requirement of claim 14 that the bands have *inside them* a secondary embossing does not mean that the secondary embossing is coextensive with those bands. Thus, the bands can be wider than the secondary embossing. There is no limitation on how broad the M2 patterns (see Fig. 5) can be. Even accepting the board's view that contiguous regions would be needed from one pattern to the next, that would still fall within the scope of the claim. The following sketch illustrates the bands obtained when the pattern of Fig. 3 is used in the configuration of Fig. 5:



One interpretation is that the bands extend to half the height of the pattern of Fig. 3 (because the band can extend beyond the secondary embossing). But even if the board takes the view that the band and the secondary embossed pattern are coextensive, bands can be seen (see the black regions in the above sketch). The patent admits that these bands "are made up by subsequently arranged portions, each of which is parallel to the axis of the roller, but offset with respect to one another" (claim 19). The board has taken the view that for these to form a band, the offset of adjacent portions has to be smaller than the circumferential width. However, this requirement is not found in the patent. An analogy can be drawn with a staircase:



There are staircases made of contiguous parts and others made of discontinuous parts (see the lower part of the sketch) that both form a staircase and provide a slope. So, from a technical point of view, there is not much difference between discontinuous and contiguous bands.

Even if the board's interpretation is accepted, the same conclusion is reached. The passage of col. 4, lines 52 to 57, is highly relevant because it teaches that the choice of an aligned (Fig. 4) or offset configuration (Fig. 5) is the result of a compromise.

The engravings are to be distributed evenly on the engraved cylinder to avoid unwanted vibrational phenomena.

According to paragraph [0060] of the patent, "the object of the overall inclination of the longitudinal bands ... is to increase uniformity of contact between the embossing roller ... and the pressure roller" to minimise vibrations.

Document X14 gives the skilled person one parameter to adjust, namely, the offset, to improve the vibrational situation. The patent says that when there are contiguous bands (as defined in the claim), the vibration problem is addressed. So both X14 and the patent disclose the same technical reality, one in functional and the other in structural terms.

The interpretation of col 4, lines 52 to 57, offered by the appellant is very creative. "The choice of motifs aligned or offset ... results from a compromise ..." does not mean that the motif as such is to be chosen accordingly, but that the offset is to be chosen. The word "compromise" suggests that the extent of the offset is to be chosen. The example Greek and paisley patterns disclosed in document X14 (see Fig. 2) are neither top- nor bottom-heavy such as the examples given in the appellant's explanatory sketches.

Even if the board does not accept the argument that the skilled person following document X14 would have inevitably arrived at the claimed features, it has to be aware of the EPO case law on the novelty of ranges (see the three criteria of decision T 279/89).

Document X14 tells the skilled person to adjust the degree of offset. According to the preliminary opinion of the board, there is a range of circumferential adjustment which is somewhere between slightly greater than zero, up to a range where the bands are contiguous:



So there is a claimed range within the range of possible offsets. It is not remote from the end of the range (the zero perfect alignment disclosed in document X14). The range encompasses a very slight move away from the zero position. Nor is it associated with a purposive technical effect because document X14 tells the skilled person to adjust the range to reduce the vibrations. If there is any vibrational effect associated with this selection, it does not make the selection of this particular range purposive.

The way in which the sheets are perforated is not defined in claim 14.

(b) Main request: obviousness of claim 1, starting from document X1

The subject-matter of claim 1 is not inventive over the disclosure of document X1.

Document X1 discloses all the features except those relating to perforation lines (i.e. 1-3 and 1-7). However, it is fully conventional and even notorious in



the art to divide rolls of toilet paper or kitchen towels into sheets with perforations.

In respect of feature 1-6, Fig. 1 of document X1 discloses an embossed pattern all across the sheets, and there is further embossing in the tracks 4 and 5 at the sides. Adding perforation lines would provide embossed patterns arranged along edge lines. But would these qualify as "patterns of smaller dimensions"? Claim 1 of the main request distinguishes between secondary embossed patterns of smaller dimensions and a principal embossed pattern, but the term "smaller" has no particular relation to any other element. It is not fully clear what the secondary embossed patterns are to be smaller than. In section 5.4.2 of its preliminary opinion, the board explained "that the skilled person would understand that making the patterns that overlap the perforation lines smaller would result in neater sheet edges after detachment from the roll". This presupposes a particular interpretation of the term "smaller". If Fig. 1 of document X1 were considered with perforation lines, it would be clear that the embossed patterns arranged along edge lines of the sheet are already small. So the question is what the term "smaller" is in relation to. Clearly, the term cannot relate to "smaller than in document X1", for example. It could mean "smaller than a principal embossed pattern". Looking at the patent itself (paragraph [0020]) "small" may mean in relation to a large pattern which is said to be present. Paragraph [0053] of the patent refers to a principal embossed pattern that forms a decorative motif. Fig. 5 shows a relatively large pattern in the centre of some of the sheets (umbrella, swimming goggles, boat, refreshing drinks, etc.) and smaller patterns around the edges. The provision of a small pattern, which is

small in relation to a central pattern, cannot have any effect on the neatness of the sheet edges in relation to the perforation lines. Maybe the smallness was assessed in relation to the size of the perforations or the separation of the perforations, but the patterns of document X1, which are all along the edges, are already relatively small. This can be seen from col. 4, lines 50 to 56, where the protrusions have dimensions of the order of millimetres. The patent contemplates a density of at least 10 protuberances per cm<sup>2</sup> (see paragraph [0039]), which also corresponds to patterns of the order of millimetres. So the neatness of the edges of the sheets once perforated is very comparable between the embodiments of the patent and document X1.

Claim 1 requires the presence of an additional pattern that is larger than the protrusions around the edges. If a principal embossed pattern larger than the patterns around the edges were placed in the centre of the sheet of Fig. 1 of document X1, a result within the scope of the claim would be obtained. Concerning the technical effect of putting a large pattern in the middle of the sheet, paragraph [0019] of the patent provides guidance. If a central decorative pattern is provided, the secondary patterns form a sort of frame around the central pattern. In paragraph [0019], this is related to an "aesthetic point of view". In Fig. 4 of the patent, the patterns around the edge fulfil the same technical function as the patterns around the edges in Fig. 1 of document X1: they result in neat edges and a nice feel. There is no technical effect related to not simply having more of the same pattern in the centre of the sheet but instead having a principal embossed pattern.

When asked by the board what the objective technical problem was and why the distinguishing feature was obvious, the respondent referred to decision T 176/97, according to which, "if the modification relative to the closest prior art have no technical relevance and are, from a technical point of view, arbitrary, the new design is not patentable and does not involve an inventive step" (see Reasons 4.4). Accordingly, no inventive step can be found in a feature that is simply provided for aesthetic reasons.

It is important not to lose sight of what is actually to be compared, i.e. the claimed subject-matter (rather than the embodiments of the patent) and the subject-matter of the prior art. The appellant insisted on the advantages of gluing, but document X1 already discloses gluing. Also, there is already a small pattern in document X1. The argument that the ability to glue or the vibration properties are being improved is irrelevant. If a large central pattern is added, the remainder is not changed, nor are the vibration and gluing properties. Claim 1 does not even define where the glue is. When the disclosure of document X1 is compared with claim 1, it is apparent that there are already helically arranged secondary patterns along the edge (see col. 8, lines 10 to 12). Consequently, there are already neat edges and convenient vibration properties. All that is different in claim 1 is that there is a principal embossed pattern in a substantially intermediate position. If such a pattern is added to the embodiment of document X1 (such as the EPO logo in the following sketch), subject-matter falling within the scope of claim 1 is obtained.



The main advantage of such a central pattern is to achieve optically pleasing drawings. This is an aesthetical consideration. There is no technical effect involved. If the board has any doubt that the central pattern improves the aesthetics, it is referred to documents X14 and X4 (see Fig. 6).

(c) First auxiliary request: admissibility

This request should not be admitted. It was filed after the time limit mentioned in the communication of the board. The late filing goes against the usual rules ensuring procedural economy. It is not appropriate to wait for a decision of the board before filing requests that could and should have been filed before.

The appeal has not changed the facts. It relies on the same documents and arguments as presented previously.

The appellant filed its appeal in May 2015. The respondent replied in August of the same year, pointing out that the new feature was lacking in the main request. Since then, the appellant remained silent until the board invited it, in April 2018, to file any

requests or statements in due time. When preparing for the oral proceedings, the respondent could not expect new requests based on features taken from dependent claims. Such requests could and should have been filed earlier, and the rules of procedure are clear on such requests.

(d) Seventh auxiliary request: inventive step

Claim 1 lacks inventive step over the disclosure of document X14. The question is whether there is a technical effect specifically related to providing longitudinal bands inclined with respect to the axis of the roller, and whether that effect is unexpected in view of the prior art. The paragraph in col. 4, lines 49 to 57, teaches that the choice between an aligned arrangement of the patterns or shifting the motifs results in a different vibrational behaviour. Therefore, there is nothing surprising in the appellant's finding that a shift reduces the problems related to vibrations of the rolls to a certain amount. Document X14 gives the skilled person one dial to adjust and invites the skilled person to adjust it. There is nothing special or surprising about the configuration reached when this teaching is followed.

The inclination obtained by offsets (Fig. 3 of the patent) is actually a degraded version of what document X14 teaches, because the pattern is more irregular. A disadvantaged modification of the prior art, however, cannot be said to be inventive, unless some other technical effect is obtained.

The appellant's assertion that it is impossible to perforate when the subsequent steps are spaced apart is not correct. Fig. 1 of document X14 shows a cutter 32.

Document X14 also explains that there is no need to have nicely arranged patterns such as in Fig. 3; patterns with an offset like Fig. 5 can also be used. Both patterns can be cut. A perforator does not require one single line of perforations. Offset perforators could be used with no great difficulty.

The appellant's argument that the offset allows a single perforator to be used presupposes that the offset is sufficiently limited. Otherwise, multiple blades are required, very much as in document X14. If a single perforation line were needed, there would have to be additional features in the claim.

So there is no improvement of the vibrational behaviour with respect to document X14, nor is the perforating made easier. Thus, the modification provides no discernible technical effect.

## **Reasons for the Decision**

### 1. Applicable law

The application on which the patent is based was filed on 27 February 2006. In application of Article 7 of the Act revising the EPC of 29 November 2000 (Special edition No. 4, OJ EPO, 217) and the Decision of the Administrative Council of 28 June 2001 on the transitional provisions under Article 7 of the Act revising the EPC of 29 November 2000 (Special edition No. 4, OJ EPO, 219), Articles 56 and 100 EPC 1973 and Article 123 EPC [2000] apply in the present case.

2. Main request

2.1 Admissibility

The main request is identical to the main request before the opposition division. Its admissibility is, therefore, unquestionable.

2.2 Interpretational matters

2.2.1 "patterns of smaller dimension"

The board understands the reference to patterns "of smaller dimension" to mean that those patterns or recurring design elements as such are of relatively smaller dimension and not that the area containing these patterns is smaller, as suggested by the opposition division in point 2.2.1 of its annex to the summons to oral proceedings dated 22 May 2014.

But what must the secondary embossed patterns be smaller than? The skilled person considering the claimed subject-matter would have understood that the secondary embossed patterns have to have smaller dimensions than the principal embossed patterns. The requirement of feature 1-6 is a requirement of relative size and is equivalent to requiring the principal embossed pattern to be "of greater dimensions".

2.2.2 "frame"

The noun "frame", which is not defined in the patent, has a wide semantic range. Considering the embodiments presented in the description and in particular in the figures of the patent, the board is of the opinion that the skilled person would have understood that, in the

context of the invention, "frame" designates a surrounding structure delimiting an area in which the principal pattern is situated.

2.2.3 "... said longitudinal bands are inclined with respect to the axis of the roller"

Feature 14-8 requires the longitudinal bands, which extend longitudinally along the roller, to be inclined with respect to the axis of the roller. This is understood to mean that a line parallel to the extension of the band is not parallel to the axis of the roller.

Paragraph [0052] of the patent, which describes Fig. 3, states that "[i]n practice, the longitudinal and inclined bands 21 L can be formed by portions of band parallel to the axis A-A of the roller 21 ..." (see also claim 17, which is a claim dependent on claim 14).

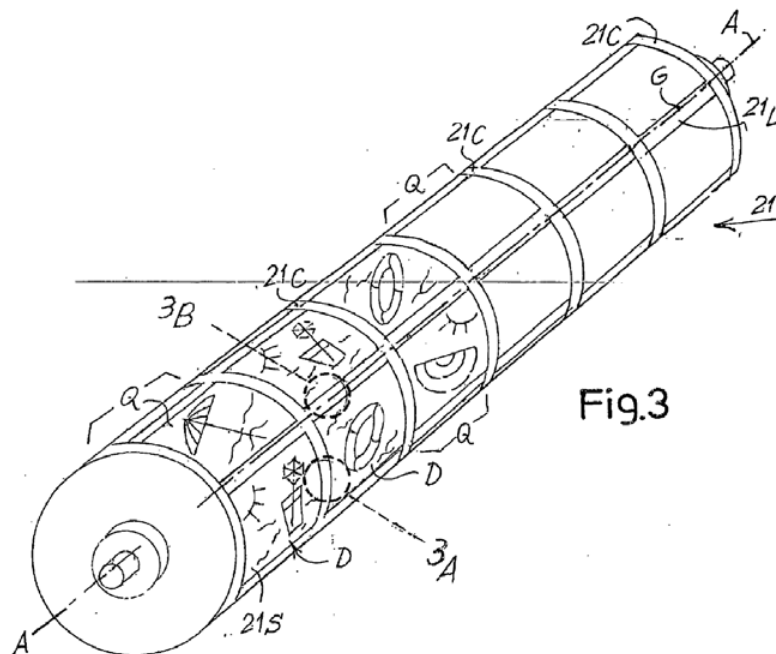


Fig.3



Thus, the inclined longitudinal bands do not have to be straight but may be composed of portions, each of which is parallel to the axis but staggered with respect to each other. However, for them to form a band, the offset of adjacent portions has to be smaller than the circumferential width of the portions.

The argument that there is no requirement for a band to be contiguous and that an interrupted band is still a band, just as a dashed or dotted line are still lines, is not without merit but must not be taken too far. A dashed or dotted line is perceived as a line because the observer's mind "fills the gaps" to some extent. For this to happen, the distance between neighbouring points or dashes has to be relatively small. In the same way, the offset between adjacent parallel strip portions has to be relatively small for them to be perceived as an inclined band.

### 2.3 Novelty (claim 14)

The only novelty objection against the main request is based on document X14 and concerns claim 14.

Document X14 discloses a roller ("*cylindre gravé en acier*") 22 for processing plies of web material (title: "*produits cellulosiques fibreux*"), comprising raised areas defining embossing patterns on the cylindrical surface of the roller (Fig. 2). The roller comprises a series of circumferential or annular bands spaced apart from one another, inside which a first secondary embossing or printing pattern is produced, as well as a series of longitudinal bands, extending longitudinally along the roller (all visible in Fig. 2).

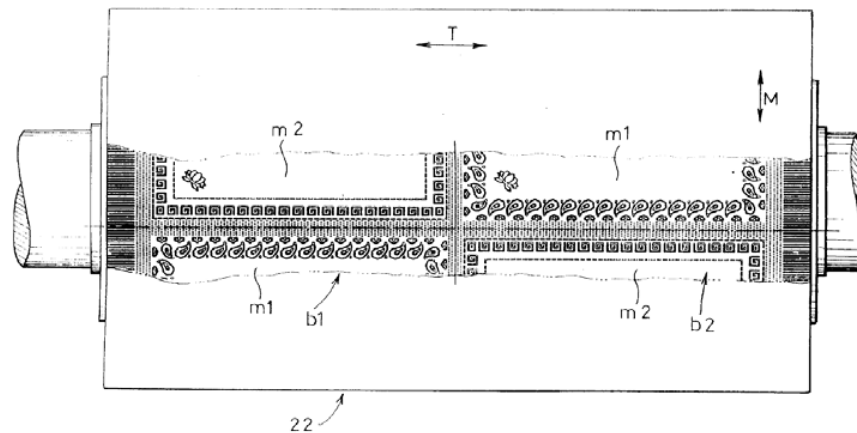


FIG.2

The longitudinal bands are spaced apart by constant pitches. Otherwise the pattern shown in Fig. 3 would not be possible. Inside the longitudinal bands a second secondary embossing pattern is produced (Fig. 3). The circumferential and longitudinal bands define squares inside each of which an intermediate principal embossing pattern M1, M2 is produced (Fig. 3).

However, document X14 does not disclose feature 14-8, according to which the longitudinal bands are inclined with respect to the axis of the roller. No such inclination is apparent in Fig.2.

The opposition division was of the opinion that this feature was disclosed "by virtue of the staggered implementation shown in fig. 5", but the board cannot endorse this view because this schematic drawing does not show any longitudinal bands.

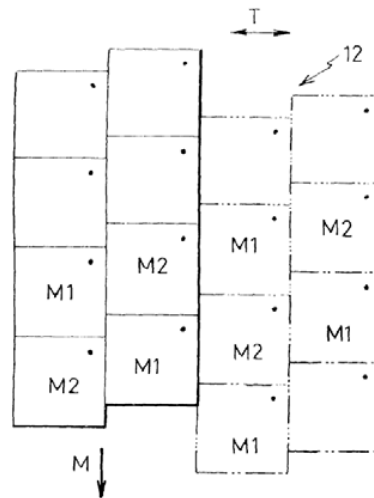


FIG.5

Another relevant disclosure is found in col.4, lines 52-57, of document X14. This paragraph follows the paragraph introducing Fig. 5 and reads:

"Le choix de motifs alignés ou décalés d'une bande à l'autre résulte d'un compromis, en fonction de la nature de chacun des motifs, en vue notamment de répartir de façon équilibrée les gravures sur le cylindre gravé afin d'éviter notamment des phénomènes vibratoires intempestifs au poste de gaufrage."

which can be translated as follows:

"The choice of patterns aligned or offset from one band to another is the result of a compromise, depending on the nature of each of the patterns, with a view in particular to distributing the engravings in a balanced manner on the engraved cylinder in order to avoid in particular unwanted vibratory phenomena at the embossing station."

This paragraph invites the skilled person to solve the objective technical problem by optimising the staggered arrangement of adjacent columns of motifs. Its disclosure does not teach the skilled person to arrange the pattern in such a way that the longitudinal bands are necessarily inclined with respect to the axis of the roller.

Thus, there is no clear and unambiguous disclosure of feature 14-8 in document X14.

Consequently, the subject-matter of claim 14 is new over the disclosure of document X14.

The board cannot see how the jurisprudence of the boards in respect of the novelty of parameter ranges would be applicable in the present case and that it would lead to a different conclusion regarding the novelty of the subject-matter of claim 14.

## 2.4 Inventive step (claim 1)

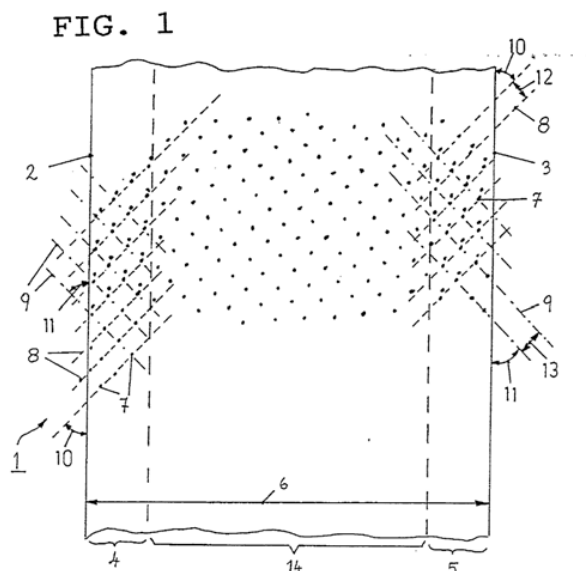
### 2.4.1 Starting point

The board uses document X1, which discloses the production of embossed tissue products, as the starting point for the assessment of inventive step. In view of the outcome of this assessment (see point 2.4.4 below), it is not necessary to consider other possible starting points, such as document X2.

### 2.4.2 Differences

Document X1 discloses a roll 15 of wound decorated web material comprising at least two plies of tissue paper (col. 7, lines 34-35: "Rolle eines mehrlagigen

Tissueprodukts") joined together by gluing (claim 6: "Verleimung") and forming at least one multi-ply web. The web material has an embossed pattern formed by nubs 7, both in a substantially intermediate position with respect to the surface of the sheets and along edge lines of the sheet and interrupted by these edge lines, as can be seen in Fig. 1. This embossed pattern is of small dimensions (of the order of millimetres, see col. 4, lines 52 to 57, which is comparable to the example pattern disclosed in paragraph [0039] of the patent).



Claim 1 differs from the disclosure of document X1 in that:

- the roll is divided into sheets by perforation lines (feature 1-3)
- there is no principal embossed pattern of greater dimensions than the dimensions of the embossed patterns in a substantially intermediate position with respect to the surface of the sheets (features 1-4 and 1-5)

- the embossed pattern does not form a frame surrounding the principal embossed pattern (feature 1-8)

If a principal embossed pattern is provided in an intermediate position with respect to the surface of the sheets of Fig. 1 of document X1, the embossed pattern formed by the nubs 7 necessarily form a frame surrounding it. Thus, providing features 1-4 and 1-5 results in feature 1-8 being present as well. Consequently, the assessment of inventive step only needs to consider feature 1-3 on the one hand and features 1-4 and 1-5 on the other hand.

Feature 1-3 is a routine measure in the field of tissue paper rolls and as such cannot confer an inventive step. Consequently, in the absence of any synergetic effects with features 1-4 and 1-5, feature 1-3 can be ignored in what follows.

#### 2.4.3 Objective technical problem

The appellant's formulation of the objective technical problem allegedly solved by the invention, i.e. to have a decorated product with a better aesthetic appearance that can be manufactured without generating dynamic stresses in the embossing device, is unsatisfactory.

This is because the absence of the generation of dynamic stresses is due to the presence of the secondary patterns of small dimension, which are already present in the embodiment shown in Fig. 1 of document X1. There is no evidence that the addition of a principal embossed pattern of greater dimensions in a substantially intermediate position with respect to the surface of the sheets would significantly deteriorate

the vibrational behaviour of the roller, nor would this have been self-evident for the skilled person.

Therefore, the only problem credibly solved by the distinguishing features 1-4 and 1-5 is of an aesthetic nature.

#### 2.4.4 Obviousness

In decision T 176/97 of 18 March 1998, Board 3.3.5 made the following statement:

"... the notion of "non-obviousness" is related to the concept of "invention". The concept of "invention" implies a technical character. This follows directly from the wording of Article 56 EPC [1973], wherein the expressions "invention" and "obvious" are linked with "state of the art" and "a person skilled in the art" (see also Schulte, *Patentgesetz mit EPÜ*, 5<sup>th</sup> edition, pages 12 to 13). In the Board's judgment, technically non-functional modifications are therefore irrelevant to inventive step, even if the skilled person would never think of such a modification. A parallel can be drawn here with a new design based on a known technical concept. That new design might be a surprise and thus "not obvious" for professional designers. Nevertheless **if the modifications have no technical relevance and are, from a technical point of view, arbitrary, the new design is not patentable and does not involve an inventive step within the meaning of Article 56 EPC [1973].**" (Reasons 4.4, last paragraph; highlighting by the present board.)

This reasoning, which the present board endorses, also applies to the present case. The appellant has not been

able to establish that distinguishing features 1-4 and 1-5 have any technical relevance. Their effect is aesthetic and, therefore, arbitrary from a technical point of view. Following the logic of decision T 176/97, the subject-matter of claim 1 does not involve an inventive step.

## 2.5 Conclusion

As claim 1 does not involve an inventive step over the disclosure of document X1, the main request cannot be allowed.

## 3. Admissibility of the first auxiliary request

The first auxiliary request was filed during the oral proceedings before the board, after the board had announced that it found claim 1 of the main request to lack inventive step. This finding was based on objections and arguments which could not come as a surprise to the appellant. In its communication pursuant to rule Article 15(1) RPBA, the board invited the parties to file new requests or statements at the latest one month before the oral proceedings (see point 7 of the communication). As no claims corresponding to the claims of the first auxiliary request were filed within this time limit, the respondent had no reason to prepare objections against this request. The late filing of the request, therefore, raised issues which neither the board nor the respondent could reasonably be expected to deal with without adjournment of the oral proceedings.

As a consequence, the board decided not to admit the first auxiliary request (Article 13(3) RPBA).



4. Seventh auxiliary request

4.1 Admissibility

The seventh auxiliary request corresponds to auxiliary request 5 before the opposition division. Its admissibility is, therefore, unquestionable.

4.2 Inventive step (claim 1)

4.2.1 Starting point

Both parties chose document X14 as the starting point. The board sees no good reason to depart from this choice.

4.2.2 Differences

As mentioned in point 2.3 above, claim 1 (which is identical to claim 14 of the main request) differs from the disclosure of document X14 by the feature according to which the longitudinal bands are inclined with respect to the axis of the roller

4.2.3 Technical effect

Paragraph [0033] of the patent mentions that the configuration according to feature 14-8 improves the regularity of contact between the embossing and pressure rollers, which leads to a reduction of vibrational problems.

As a consequence, the objective technical problem may be seen as reducing the generation of unwanted vibrations in the embossing device.

#### 4.2.4 Obviousness

The decisive issue is whether the skilled person starting from document X14 and faced with the objective technical problem of reducing the generation of unwanted vibrations in the embossing device would have been led to arrange the handkerchief patterns M1 and M2 in such a way that the longitudinal bands are inclined with respect to the axis of the roller.

Document X14 proposes a solution to this problem in col.4, lines 49 to 57, already cited and translated above (see point 2.3). This passage teaches that the vibrational problems can be overcome by an appropriate choice of the patterns used.

Thus, the teaching of this passage would not have led the skilled person to incline the longitudinal bands with respect to the axis of the roller by shifting adjacent patterns with respect to each other. Rather, it teaches away from this solution by suggesting a different way of overcoming the vibrational problems.

Therefore, the teaching of document D14 would not have led the skilled person starting from document X14 and faced with the objective technical problem as defined above to the claimed solution in an obvious way.

As a consequence, claim 1 must be held to involve an inventive step. The seventh auxiliary request can be allowed.

#### **Order**

**For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division with the order to maintain the patent with the following claims and a description and figures to be adapted:

Claims:

Nos. 1 to 15 of the seventh auxiliary request filed under cover of a letter dated 13 May 2015.

The Registrar:

The Chairman:



N. Schneider

M. Poock

Decision electronically authenticated