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File Number: T 596/88 - 3.2.4

Application No.: 82 300 460.1

Publication No.: 0 057 583

Title of invention: Synthetic yarn and yarn-like structures and a method and apparatus for their production

Classification: D02G 1/18

D E C I S I O N
of 30 October 1991

Proprietor of the patent: J. & P. Coats, Limited

Opponent: (01) Amann + Söhne GmbH + Co.
(02) Ackermann - Göggingen AG

Headword:

EPC Articles 54, 56, 100(b) and 100(c)

Keyword: "The introduction during the examination procedure of a word which only summarises the already obtained and properly disclosed result, without adding additional technical information, is allowable"

Catchwords

"Sufficiency of disclosure - yes"



Case Number : T 596/88 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 30 October 1991

Appellant I : Amann + Söhne GmbH + Co.
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Representative : Patentanwälte
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Respondent : J. & P. Coats, Limited
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Decision under appeal : Interlocutory decision of the Opposition Division
of the European Patent Office dispatched to the
parties on 30 September 1988 concerning
maintenance of European patent No. 0 057 583 in
amended form.

Composition of the Board :

Chairman : C.A.J. Andries
Members : M.H.M. Liscourt
W. Moser

Summary of Facts and Submissions

- I. European patent No. 57 583 comprising four claims was granted on 5 September 1984 in response to European patent application No. 82 300 460.1 filed on 28 January 1982.

- II The patent was opposed by the Appellants I and II (Opponents I and II) each of whom requested the revocation of the patent in its entirety on the grounds of lack of inventive step of the subject-matter of Claim 1 (Articles 100(a) and 56 EPC) and of insufficient disclosure (Article 100(b) EPC).

- III. The Opposition Division maintained the patent in amended form (Claims 1 to 3: Claims 1, 2 and 4 as granted) by its interlocutory decision dispatched to the parties on 30 September 1988.

- IV. Each Appellant lodged an appeal against the decision on 30 November 1988, paying the appeal fee simultaneously. The Statements of Grounds were received on 27 January 1989 (Appellant I) and 8 February 1989 (Appellant II) respectively.

- V. Appellant I relied among others on the following documents:

(D1): GB-A-1 117 502; and
(D4): Reprint from "Chemiefasern/Textilindustrie" 29/81 (1979) 857-862, pages 1 to 6;
H. Artunc, B. Bocht and H. Weinsdörfer: "Der Lufttexturierprozeß mit integrierten Streck - und Schrumpfbzonen"; and argued:

- that during the procedure up to grant amendments had been made (i.e. the introduction of the feature "unbulked") containing subject-matter which extended beyond the content of the application as originally filed (Articles 100(c) and 123(2) EPC);
- that the subject-matter of Claim 3 lacked novelty with respect to document D1 (Articles 100(a) and 54 EPC); and
- that the subject-matter of Claim 1 did not involve an inventive step with respect to documents D1 and D4 (Articles 100(a) and 56 EPC).

VI. Appellant II on the other hand argued:

- that due to the expression "normal draw ratio" the present European patent did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 100(b) EPC); and
- that the subject-matter of the claims either lacked novelty (product-Claim 3) or did not involve an inventive step (method-claim) (Articles 100(a), 54 and 56 EPC) with respect to the following documents:

(D5): "Luftblastexturieren" Vortrag von Dr. Fischer am 12 June 1980 bei "Swiss Section des Textile Institutes" bei Viscosuisse AG, Emmenbrücke, pages 1 to 11 and Figures 1 to 14;

(D7): DE-C-2 628 774; and

(D8): H. Ludewig: Polyester Fibers, pages 174 and 175 Wiley-Interscience, London, 1971

In relation to his objection with respect to Article 100(b) EPC, the Appellant II also relied on

(D9): Expert report established by Messrs Artunc and Weinsdörfer.

VII. Oral proceedings took place on 30 October 1991. The Appellant I, after being duly summoned, informed the Board by letter dated 28 October 1991 that he did not intend to come to the oral proceedings. In accordance with the provisions of Rule 71(2) EPC the proceedings were continued without him.

The Respondent (Proprietor of the patent) submitted two new versions for the product Claim 3 intended to form part respectively of his main request and his subsidiary request.

VIII. The independent Claims 1 and 3 of the Respondent's main request read as follows:

Claim 1:

"A method of producing a twistless yarn from at least two separate strands (1, 2, 3) of thermoplastic strand material by drawing at least one strand (2, 3) by an amount such that the ratio of draw is higher than the draw ratio known in the art as normal for the particular material of which the strand is made, subjecting the strands to a turbulent stream of fluid, while feeding them forwardly at different rates of overfeed so that loops (21) form on the strands thus creating an intermingled textured yarn (14), then heating the intermingled yarn to a temperature high enough to set the conditions to cause it to attempt to shrink, characterized in that successive quanta of the yarn are held to a predetermined length while the yarn is being heated, said predetermined length being chosen such that

the strands as a result of their attempts to shrink are pulled straight resulting in the loops being pulled tight so that they change their shape from loops into bud-like projections and the strands collapse on one another so that the previously bulky form of the yarn is eliminated and the bud-like projections on each strand become entangled with the other strand or strands, then while the now unbulked yarn is held to said predetermined length to prevent further shrinkage the yarn is cooled to a temperature below that which the yarn ceases all attempt to shrink and the yarn remains completely stable as an unbulked yarn".

Claim 3:

"A twistless, unbulked yarn formed by the process according to Claim 1, said yarn comprising at least two multi-filament strands (1, 2, 3) of thermoplastic material intermingled with one another, the filaments of the strands presenting a series of bud-like projections (22) constituted by tightened loops (21) which inhibit relative movement of the filaments and the resultant yarn (20) providing a unit structure in which the strands are not individually distinguishable as such".

IX. The Appellants request:

- the cancellation of the impugned decision, and
- the revocation of the patent.

The Appellant I furthermore requests as a subsidiary request the referral of the case back to the first instance in accordance with Article 111(1) EPC.

The Respondent requests that the patent be maintained on the basis of the following documents:

Main request:

Claims: Claims 1 and 2 as granted;
Claim 3 submitted during the oral proceedings as main request;

Description: as granted, with modifications in Columns 1, 2 and 4 as defined in the communication according to Rule 58(4) EPC dated 22 June 1987;

Drawings: as granted;

Subsidiary request:

Claims: Claims 1 and 2 as granted and Claim 3 as submitted during the oral proceedings as subsidiary request.

Reasons for the Decision

1. The appeal is admissible.
2. Main request of the Respondent
 - 2.1 Amendments

The Board is satisfied that the present European patent documents according to the Respondent's main request do not contain subject-matter extending beyond the content of the application as originally filed (Articles 100(c) and 123(2) EPC), and that the amendments made in Claim 3 (granted Claim 4) do not extend the protection conferred (Article 123(3) EPC).

- 2.1.1 The Appellants only emphasised that the introduction of the word "unbulked" into the description and into the wording of Claim 1 during the procedure up to grant had to be considered as an amendment containing subject-matter which extended beyond the content of the application as filed.
- 2.1.2 It is true that during the procedure up to grant the word "unbulked" was introduced into the patent specification and into the wording of Claim 1, and that that word, as such, cannot be found explicitly in the application as originally filed.
- 2.1.3 However, what matters in this respect is the technical meaning or the technical content of the added word in the framework of the European patent. In other words, does the use of the word "unbulked" change the technical content of the application as originally filed in such a manner that the resulting subject-matter extends beyond the content of the application as originally filed?
- 2.1.4 First of all it should be stated that, although a definition for the expression "bulked yarns" can be found in textbooks, a precise and unequivocally clear definition of what can be meant by the expression "unbulked yarn" has not been brought forward in the present proceedings, so that it cannot be affirmed that the used word "unbulked" must represent a very specific configuration or condition for a person skilled in the art.

The Board accepts therefore the argument of Appellant I (letter dated 26 January 1989, page 6, 3rd paragraph, lines 1 and 2, and page 7, 2nd paragraph) that the word "unbulked" does not represent or imply an unequivocally defined technical feature. This fact however implies that

the reader of the present European patent must take into account the whole content of the application as originally filed to understand the relevant technical meaning of the added word (Article 69 EPC).

- 2.1.5 The Respondent argued that the expression "unbulked yarn" cannot be considered as an additional technical feature which has been added to the patent specification, but that it has only to be considered as an appropriate wording for the final result already obtained by the method steps present in Claim 1.

For this the Respondent mainly relied on page 7, lines 16 to 24 of the application as originally filed, which disclosed that by virtue of the heat shrinking, during which the strands are held to a predetermined length, not only all the loops present are tightened to become bud-like projections (lines 22 to 24: the contraction must be sufficient to tighten all the loops), implying thereby that all the filaments first attempt to shrink into a straight configuration before the loops can be tightened into said bud-like projections, but also the strands are collapsed on one another (clustered around) so that they approach each other as far as they can and so that the result is a finished yarn substantially uniform in cross-section and wherein the strands are individually indistinguishable as such.

It would be proper for a person skilled in the art to consider such a disclosure implying a very compact yarn - in contradiction to a purposefully given larger volume when it is bulked - as representing an "unbulked" yarn, particularly since the whole content of the application as originally filed clearly disclosed a process the purpose of which finally consisted in avoiding the bulkiness obtained in the intermingling zone.

2.1.6 The Board sees no reason to doubt the correctness of such an interpretation. Indeed, the added word does not add any new method step to the claimed method since the word is always used in the context of the obtained result.

Furthermore, the Board accepts that it is only used to give an appropriate definition to the already obtained final result, since that final result is already unequivocally disclosed, be it in a longer wording, in the rest of the application as originally filed. Indeed, the originally disclosed result of the claimed method as it appears from the application as originally filed is the following:

- the resulting yarn provides a unit structure in which the strands are not individually distinguishable as such any more (page 5, lines 4 to 6 and page 8, lines 3 to 5);
- the intermingled strands are collapsed on one another, so that the loops are tightened and form the bud-like projections on the strands (page 7, lines 16 to 24);
- a core strand with the other strands clustered around it (page 7, lines 34 to 36 and page 8, lines 24 to 26);
- the finished yarn is substantially uniform in cross-section (page 8, lines 1, 31 and 32).

Taking into consideration the above description of the final result of the originally disclosed method, the Board is unable to see how the added word "unbulked" could further modify that final result. Indeed the final unit structure of the yarn is already substantially uniform in cross-section, and the strands constituting the yarn being collapsed on one another are already individually indistinguishable, so that it cannot be

upheld that the addition of the word "unbulked" implies a prolonged functioning of the method steps involved in order to further modify the final product.

2.1.7 The Board is therefore convinced that the use of the expression "unbulked yarn" neither results in a modified method nor in a modified final result, but that this expression merely represents another wording for "yarn in its finished state" in the meaning of the originally disclosed application. Since that finished state is clearly defined in the application as originally filed, it is clear for a person skilled in the art what is meant by the expression "unbulked yarn". The Board therefore is of the opinion that the use of the word "unbulked" in the patent specification cannot be considered as an amendment containing subject-matter which extends beyond the content of the application as originally filed (Articles 100(c) and 123(2) EPC).

2.2 Sufficiency of the disclosure

2.2.1 In this respect, the main argument brought forward by the Appellants was that the expression "normal draw ratio" has no exact meaning, so that a person skilled in the art is not able to carry out the invention.

2.2.2 The Board accepts however the argument brought forward by the Respondent that the expression used, namely "the draw ratio known in the art as normal for the particular yarn material" (normal draw ratio), has a practical meaning for a person skilled in the art, insofar as that draw ratio of the particular yarn material known in the art as normal is determined by the manufacturers of such yarns, and is recommended by them to the buyers of the yarn.

2.2.3 Indeed, as can be seen from document D4 (page 858, second column, last five lines), even for the authors of document D9, Messrs H. Artunc and H. Weinsdörfer who were also co-authors of document D4, it seemed to be important to indicate not only the starting titre, but also the theoretical final titre. The argument of Appellant II brought forward during the oral proceedings, that the expression "theoretical final titre" would mean the value of the final titre just before the yarn breaks cannot be followed by the Board, since in the same document it is clearly stated that even greater drawing ratios can be used (cf. document D4: Figure 7).

On the contrary the word "theoretical" itself points already in the direction of what is considered by a person skilled in the art as normal. Such an indication furthermore clearly shows (and supports the argument of the Respondent) that for a person skilled in the art there does not exist an absolute final value, but that there exists for each material a preferable theoretical final value (the normal one), which allows and does not exclude however the use of other final values. That such a theoretical final value of a specific material depends on the particular production process circumstances of that material involved and therefore is linked to a specifically made material by a specific manufacturer is all the more accepted by the Board as this is also confirmed by document D9 (page 5, lines 10 to 13 of the second paragraph). The Board is convinced that the specific strand material on the one hand and the starting and theoretical final titre, which means the normal draw ratio, on the other hand, together form an entity which gives a person skilled in the art technical information of the material used. The Board therefore agrees with the Respondent that such an information, which relies on specific production process circumstances, cannot be

found in standard textbooks but is provided by each manufacturer for each specific product he sells.

From a person skilled in the art, who is the person addressed in relation to the sufficiency of the disclosure, it can be expected that he knows the existence of such relationships between specific yarns made by specific manufacturers under specific production process circumstances on the one hand and the resulting starting and theoretical final titre values on the other hand. It is not realistic to believe that a person skilled in the art would buy a product without knowing its characteristics. Appellant II, although stating that such information was merely confidential and therefore not available to the public, did not bring forward any further proof for that allegation, so that the Board is not able to follow this argument.

- 2.2.4 That such an information was and is given by the manufacturers not only before, but also after the priority date of the present European patent is clear from document D4 (page 858, second column, last five lines) wherein the starting titre and a theoretical final titre of a pre-oriented PES-yarn is indicated, as well as from the data sheet filed by the Respondent and from the late-filed DE-A-3 720 237 (Column 3, lines 47 to 53; and Claim 2). A person skilled in the art wanting to use strands of thermoplastic material in the present method was therefore able to request the information from the material manufacturer involved.

The Board furthermore has no reason to believe that such information was not given by the material manufacturers (even at the priority date of the present European patent), in particular because that information constitutes for a person skilled in the art, as already

stated above, part of the characteristics which are specific for each type of material and which depend, like other characteristics, on the specific production process circumstances, and because no unambiguous substantiation of this allegation has been brought forward by Appellant II.

2.2.5 The expression "that the ratio of draw is higher than the draw ratio known in the art as normal for the particular material of which the strand is made" is a ratio higher than that which the manufacturer recommends as normal for that specific yarn. For a person skilled in the art that means to draw a strand of yarns in a range of ratios which is clearly above the normal range of ratios which would be used for converting the spun yarn or pre-oriented yarn into a commercially sufficient strong yarn.

2.2.6 The European patent specification gives a clear indication not only of the amount by which the higher draw ratio can exceed the normal draw ratio (Column 2, lines 51 to 53: 15%; Column 3, lines 3 to 6; and Column 4, lines 37 to 40) but also of the purpose of that feature, namely to increase the shrinkage ratio to a level higher than normal at an elevated temperature for the particular material of the strand (Column 2, lines 45 to 50; Column 3, lines 6 to 11; Column 4, lines 40 to 42; Column 6, lines 5 to 9).

2.2.7 The definition for the expression "natural draw ratio" (cf. document D8) brought forward by Appellant II does not help him further, since there is according to the Board a clear difference between the expression "natural draw ratio" on the one hand, and the expression "the draw ratio known in the art as normal for the particular yarn material" on the other hand which expressions have to be

considered as defining different characteristics of the material.

- 2.2.8 The experiments made by Appellant II cannot be accepted by the Board since the starting point of the material, namely the draw ratio known as normal for that material which should be information given by the manufacturer of the used material, has not been mentioned, so that it cannot be ascertained that in the experiment the drawing treatment of at least one strand, in order to obtain a strand having a higher shrinkage ratio than normal at an elevated temperature for the particular material of the strand, consisted of subjecting the strand to a ratio of draw greater than normal for the particular material.

Indeed, the Appellant II only indicated the starting material (POY mit einem Vorlagetiter von 270 dtex f 48) and stated that as a "normal draw ratio" he himself selected a draw ratio 1:1,7 corresponding to that ratio used in the patent in suit (column 3, line 4).

Such an approach fails to recognise the realistic interpretation given by the Respondent and accepted by the Board, since it mixes a specific first material on the one hand, with a draw ratio on the other hand which is completely unrelated to this first material involved. The Board cannot accept the argument that a draw ratio, which is known in the art as normal for a particular second material of which a strand is made which is therefore specifically related to that specific second material made by a specific manufacturer and which is mentioned in the framework of a particular document (cf. the patent in suit), should be linked to a first material which has no link whatsoever to the aforementioned second material. Indeed since it cannot be correct, according to the Board, to use a specific

characteristic of a second material, as a starting point for a different first material, instead of using its own corresponding specific characteristic.

- 2.2.9 The Board cannot detect within the experts' opinion according to document D9 arguments which oppose the interpretation brought forward by the Respondent.

Furthermore, as it was already stated above, due to the entity "material-production process circumstances-obtained characteristics", it is accepted by the Board that it is the manufacturer of the material, who knows his production process circumstances, who is the source from whom the information with respect to the material characteristics dependent on his own production-process comes, and not a standard textbook which normally provides general information irrespective of the production process circumstances.

- 2.2.10 Sufficiency of disclosure within the meaning of Article 100(b) EPC is not restricted to the wording of Claim 1, but relies on the whole content of a European patent. Since the patent specification clearly describes one concrete possibility of feeding the strands (Column 6, lines 12 to 17) and since Appellant II did not prove that other feeding possibilities did not result in the wanted finished product, the Board is not in a position to doubt the feasibility of the method according to the present European patent in suit.

- 2.2.11 A person skilled in the art taking into account his technical knowledge therefore finds enough information in the specification of the patent in suit to carry out the invention, so that the Board therefore cannot see that in the present case there is insufficient disclosure within the meaning of Article 100(b) EPC.

2.3 In order to be able to properly assess novelty and inventive step, attention is drawn to the interpretation given in above points 2.2.2 and 2.1.5 of the expressions

- "draw ratio known in the art as normal for a particular material of which the strand is made"; and
- "unbulked".

Furthermore, it is accepted that the expression "that loops form on the strand" means "that loops form on the filaments of each strand" and that the word "loops" has to be interpreted as meaning "crunodal loops".

2.4 Claim 1

2.4.1 Novelty

None of the available documents discloses a method of producing a twistless yarn from at least two separate strands of thermoplastic strand material according to Claim 1. Since this has not been disputed by the Appellants there is no need for further detailed substantiation of this matter. The subject-matter of Claim 1 therefore is considered to be new within the meaning of Article 54 EPC.

2.4.2 Closest prior art, technical problem and solution

2.4.2.1 The precharacterising portion of Claim 1 is, as mentioned in the patent in suit, derived from the method of producing bulky textured hybrid yarns disclosed in document GB-A-1 513 927 (D10). In this known method first and second fibres are used, which have, before shrinking, a different shrinkability. Although no indication can be found in document D10 with respect to the drawing of a

strand by an amount such that the ratio of draw is higher than the draw ratio known in the art as normal for the particular material of which said strand is made, the Respondent stated during the oral proceedings that it can be assumed that this method step was disclosed in document D10, and that the patentability of Claim 1 did not depend on this step.

Document GB-A-2 048 329 (D11) considered by the Appellant II as the closest prior art and disclosing a method for the preparation of a bulkable filamentary yarn, is according to the Board further away from the present method since this document discloses the use of only one strand, and even teaches to avoid crunodal loops which are important in the present method.

Also document D1, considered by the Appellant I as the closest prior art, cannot be accepted by the Board as such, since it does not give more information than above cited document D10. The latter has therefore to be considered as the closest prior art.

2.4.2.2 The method according to document D10 produces bulky yarn having a soft feel. These yarns however are not so well suited for uses where bulkiness is a disadvantage. For example sewing threads normally require to have substantially constant diameter dimensions and a substantially smooth exterior surface.

2.4.2.3 Therefore, the problem to be solved is to provide a method allowing the production of a compact multi-filament yarn untwisted and unbulked within the meaning of the patent in suit, where the filaments are well held together.

2.4.2.4 There is no reason for the Board to doubt that the solution proposed in the characterising portion of Claim 1 effectively results in a twistless yarn free from bulkiness within the meaning of the patent in suit.

Indeed, due to the use of two or more strands, which are texturised with different rates of overfeed, these strands behave differently during the shrinking step. Part of that different behaviour is that they move somewhat relatively in the longitudinal direction, which movement provides for the bud-like projections to become still more entangled and blocked with each other.

2.4.3 Inventive step

It should be kept in mind that the final result of the present method has been clearly disclosed in the application as originally filed and that it can be summarised in the expression "unbulkied yarn" within the meaning of the patent in suit.

2.4.3.1 Document D10 cannot give to a person skilled in the art a hint how to obtain such an "unbulkied yarn" within the meaning of the patent in suit, since it only suggests to such a person how to obtain a bulky yarn.

2.4.3.2 Also document D11, on which Appellant II relied solely during the oral proceedings, cannot give a clear hint to a person skilled in the art. Indeed, document D11 suggests to avoid crunodal loops, which are present in the method disclosed in document D10, and to use arch-like loops in a method for the preparation of a bulkable filamentary yarn. Therefore, the Board does not accept the view that, based on the teaching of document D11 (cf. Claim 7), stable yarns (versus bulkable: intended to become bulky when boiled) as well as yarns having bud-

like projections (versus loops shrunk into a straightened state) may be obtained. The indication in document D11 with respect to the crunodal loops (which have to be avoided), which discloses that by heating these crunodal loops, they form and result in little protuberances on the surface of the yarn, as shown in Figure 6 and that by excessively heating these protuberances may be avoided does not help further, since there is no suggestion of how or under which circumstances such a heating has to take place, and since there is, furthermore, no indication how such a method can be applied in the presence of two strands, and what the result will be when two strands are used. Therefore, there is no clear teaching to be found in document D11 which suggests the solution claimed in the patent in suit.

2.4.3.3 Document D1 discloses the production of bulky textile yarns consisting of two or more different component filaments; therefore a person skilled in the art wanting to avoid bulkiness obtained with the method according to document D10 would not be guided by a method which also results in a bulked final product.

2.4.3.4 Documents D5 and D7, cited by the Appellant II during the oral proceedings to show that there was no prejudice against using air-blowing techniques in producing yarns which could be used as sewing yarns, cannot give any hint towards the claimed solution, since the methods disclosed in these documents result respectively in either a bulked (textured) or a twisted yarn.

2.4.3.5 Likewise, the other available documents give no hint of the subject-matter of Claim 1. Their teachings could not, either alone or in combination with the teachings of the documents discussed above, lead the person skilled in the art to a method according to Claim 1 of the patent in suit.

2.4.3.6 Even if, as suggested by the Appellant II, document D11 were taken as the closest prior art, i.e. to start from a method using only one strand, working without different rates of overfeed between different strands and without the claimed particular drawing of a strand, with a different cooling, and no bud-like projections as a result, it would still not be clear to the Board, why a person skilled in the art would try to modify completely not only his starting point (i.e. at least two strands instead of one strand; the particular claimed drawing), but also the intermingling method step (i.e. a continuous intermingled yarn with crunodal loops instead of intermittently interlaced yarn with arch-like loops) and the obtained result (i.e. stable yarn instead of a bulkable yarn). The mere reference to the competence of a person skilled in the art by Appellant II, is not sufficient in the present case since he, relying on general principles, did not make it clear to the Board, on the basis of concrete indications in further documents, why a person skilled in the art would have modified all these elements in expectation of some improvement or advantage.

2.3.4.7 Appellant I suggested to start from document D1, the teaching of which combined with the teaching of document D4 would lead a person skilled in the art to the method claimed in Claim 1.

Document D1 discloses a method for the production of bulky yarns and does not disclose the use of a draw ratio higher than the "draw ratio known as normal". Furthermore, there is no clear indication in this document defining the origin and the purpose of the "knots" so that the latter may not be compared with the pulled tight crunodal loops according to Claim 1.

The Board is however unable to find in document D4 a teaching that, for example, by using a draw ratio higher than the "draw ratio known as normal" and by handling crunodal loops in such a manner that they result in bud-like projections (pulled tight crunodal loops) a yarn without bulk can be obtained. No part of document D4 points in that direction.

2.4.3.8 The subject-matter of Claim 1 therefore involves an inventive step within the meaning of Article 56 EPC.

2.5 Claim 3

2.5.1 Novelty

2.5.1.1 Document D1 cited by the Appellant I relates to bulky textile yarns, which therefore already for this reason may not be compared with the resulting yarn according to Claim 3 which has to be unbulked within the meaning of the patent in suit. Although document D1 refers to knots as well, the functioning and the origin of these knots are not explicitly explained in it. The Board takes the view that there is no clear relation between the knots on the one hand and the indication on page 2, lines 105 to 110 concerning the possibility of crunodal loops on the other hand. The Board therefore is not in a position to accept the argument that these knots correspond to the bud-like projections constituted by tightened crunodal loops which inhibit relative movement of the filaments, in particular since the argument relies on the interpretation of a feature which is not supported by convincing facts. Consequently, such an interpretation has to be considered as the result of an ex-post facto analysis.

2.5.1.2 Appellant II relied on Figure 6 of document D11 which in his opinion discloses the subject-matter of Claim 3. However, it is clear from document D11 that the yarn shown in Figure 6 was formed only of one multi-filament strand, which according to the Respondent is a technical feature which can be detected in the final product (i.e. the yarn as claimed). Although it is also stated that the strands are not individually distinguishable as such anymore in the final product, each filament however is defined by the history of the strand to which it belonged, for example, by its count, its overfeed, its composition, etc., so that these filaments which are treated differently in accordance with the method according to Claim 1 (e.g. overfeed) can be recognised in the final product as belonging to one strand or the other.

The Board has no reason to doubt this explanation, so that the yarn according to Figure 6 of document D11 cannot destroy the novelty of the subject-matter of Claim 3. It is furthermore not clear in document D11 if the tightened loops inhibit relative movement of these filaments.

2.5.1.3 None of the other available documents discloses a twistless, unbulked yarn according to Claim 3. To give reasons is unnecessary since the Appellants did not dispute the novelty of the subject-matter of Claim 3 with respect to the state of the art known from these available documents.

2.5.1.4 The subject-matter of Claim 3 therefore is considered to be new within the meaning of Article 54 EPC.

- 2.5.2 With respect to the inventive step of the subject-matter of Claim 3, no arguments have been brought forward by the Appellants. The Board sees no reason to doubt that the subject-matter of Claim 3 involves an inventive step within the meaning of Article 56 EPC.
- 2.6 In view of the above, the patent in suit can be maintained on the basis of the Respondent's main request, i.e. the independent Claims 1 and 3, together with the dependent Claim 2 and with the modified description as well as the granted figures.
3. Therefore, there is no need to examine the Respondent's subsidiary request.
4. Since the patent can be maintained in amended form, the Board sees no reason to remit this case to the first instance as was requested by the Appellant I without having however substantiated his request.
5. At the end of the oral proceedings, Appellant II present at the oral proceedings was given an opportunity to comment on the amendments submitted by the Respondent. Appellant I chose not to avail himself of the opportunity to take part in the oral proceedings. Therefore, a communication under Rule 58(4) EPC was not necessary in the present case (see Decision T 219/83, OJ EPO 1986, 211) since the oral proceedings gave the Respondent, Appellant II, and also Appellant I - had he been present - adequate opportunity to comment therein on the current set of amended documents of the patent in suit i.e. on the proposal to maintain the patent in suit in amended form.

Order

For these reasons, it is decided that:

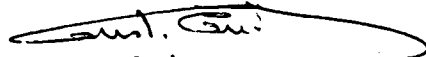
1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the European patent based on the Respondent's main request, i.e. the documents defined in the above section IX.

The Registrar:


The Chairman:



M. Beer



C. Andries

31/07/92 

02766

W. Moser