DECISION
of 13 February 2001

Case Number: T 0578/98 – 3.2.6
Application Number: 92909759.0
Publication Number: 0542947
IPC: D04B 21/02

Language of the proceedings: EN

Title of invention:
Warp knitted tape

Patentee:
Brightwake Limited

Opponent:
Seton Healthcare Group PLC

Headword:
-

Relevant legal provisions:
EPC Art. 52(1), 54(1), 56

Keyword:
"Novelty - yes"
"Inventive step - yes"

Decisions cited:
-

Catchword:
-
Case Number: T 0578/98 - 3.2.6

DECISION
of the Technical Board of Appeal 3.2.6
of 13 February 2001

Appellant:
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Representative:
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Respondent:
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Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 2 April 1998 rejecting the opposition filed against European patent No. 0 542 947 pursuant to Article 102(2) EPC.

Composition of the Board:
Chairman: P. Alting van Geusau
Members: G. C. Kadner
M. K. S. Aúz Castro
**Summary of Facts and Submissions**

I. European patent No. 0 542 947 was granted with the following independent claims 1 and 6:

"1. A method of producing a warp knitted tape (10) having a loop pile, the method including the steps of knitting a ground fabric by knitting a plurality of straight wales (12) from wale forming yarn and during knitting the wales laying-in across said plurality of wales (12) on selected courses at least one weft yarn (14), characterised in that during knitting of the ground fabric a textured yarn (16) is knitted-in along selected wales (12), the textured yarn (16) being floated across adjacent wales or courses at selected locations to define a float (17) on the surface of the ground fabric at said selected locations, the textured yarn (16) being knitted-in under tension and permitted to relax in the region of the floats (17) after knitting in order to produce a loop pile comprising a mat of tangled loops.

6. A warp knitted tape (10) having a loop pile, the tape (10) comprising a warp knitted ground fabric, characterised in that a textured yarn (16) is knitted-in to produce floats (17) of textured yarn (16) on the surface of the ground fabric, the floats (17) of textured yarn defining a loop pile comprising a mat of tangled loops."
II. The Opposition against this patent which was based on the grounds of Article 100(a) and (b) in combination with Article 52(1), 54 and 56 EPC was rejected by the Opposition Division by decision announced on 20 March 1998 and posted on 2 April 1998 which took into consideration the following prior art:

D1: Extract from an operating manual of a Kohler machine, 7 pages, undated. Attached thereto is an additional page (sheet S5/70), concerning prices of some Kohler machine spares, dated May 1970

D2: A sample tape of Beacon plastics limited - allegedly prior used


D4: GB-A-1 195 422


D6: a sample of a tape in accordance with the patent and a conventionally produced sample

III. On 18 May 1998 the Appellant (Opponent) lodged an appeal against this decision and paid the appeal fee on the same date.

Together with the statement of grounds of appeal, filed on 10 August 1998, the following documents were cited:

D7: Statutory declaration by Mr A. Beal dated 7 August 1998
D8: Statutory declaration by Mr M. Burton dated 3 August 1998

D9: An order for warp knitted stretch material dated 17 February 1988 (exhibit referred to as JMB "1" in D8)

D10: A sample card dated 4 June 1990 (exhibit referred to as JMB "2" in D8)

D11: Pattern sheet No. EL 2898, dated 23 March 1983 (exhibit referred to as JMB "3" in D8)

D12: D.F. Paling: "WARP KNITTING TECHNOLOGY", Columbine Press, GB, 1965, pages v to vii, and 100 to 103

In the appeal proceedings the Appellant further relied upon:

D16: Statutory declaration by Mr A. Beal dated 7 February 2001;

and the Respondent (Patentee) filed:

D13: Sample of a tape of which half of the floating yarns were withdrawn (sample nominated RKT1)

D14: Statutory declaration of Mr K. A. Allen dated 9 December 1998

IV. In a communication dated 7 July 2000 the Board of Appeal expressed doubts as to whether conclusive evidence had been provided in support of an alleged public prior use based on the Kohler knitting machine disclosed in D1 for the fabrication of tapes in accordance with the samples D9 to D11. As a further preliminary assessment the Board informed the parties that in respect of disclosure, novelty and inventive step of the claimed subject-matter it did not see a reason to deviate from the conclusions arrived at in the decision under appeal.

V. Oral proceedings were held on 13 February 2001.

The Appellant relied essentially upon the following submissions:

The method of claim 1 and the knitted tape of claim 6 were not novel with respect to the prior art according to D1 in connection with D7 to D12 and D16. The Kohler knitting machine, an extract of the manual of which was provided as D1, had been in use many years before the priority date of the patent, and on that machine the claimed method could be carried out. Particularly the "Marabout needles" enabled a textured yarn to be knitted-in in the claimed manner, and such textured yarns as were addressed in the statutory declarations of Mr Beal (D7, D16), were usually applied in warp knitted tapes of the form indicated in the contested patent. When using a floating textured yarn, self-evidently a mat of entangled loops would be created.
The claimed method was also known from the book D12 which disclosed in Figure 65 and in the following text passages the production of a warp knitted loop-raised fabric having a looped pile on its surface. The reference to "flat yarns" indicated to a skilled person that textured yarns were concerned. It was further obvious that tightening of the fabric construction was caused after knitting-in these yarns under tension. Therefore a skilled person would be led to the claimed subject-matter by D12 since this book already taught the production of a loop pile comprising a mat of tangled loops.

The Appellant requested that the decision under appeal be set aside and that the European patent No. 0 542 947 be revoked.

VI. The Respondent requested that the appeal be dismissed and that the patent be maintained as granted.

Its submissions are summarised as follows:

D16 should not be admitted into the proceedings because it was late filed and not relevant.

The question whether the Kohler machine was known before the priority date was of no relevance because no proof had been provided that the claimed method actually had been carried out on it. It was not contested that the prior art included warp knitted tapes, loop forming piles and textured yarns as such, but the patent claimed the specific combination of these features whereby in particular the use of textured yarns for the special purpose of a loop forming mat was novel and non-obvious.
The samples provided by the Appellant did not comprise securely knitted-in textured yarns and would not be suitable for touch and close fasteners because the loop pile would be destroyed in a short time.

The method described in D12 relied on a loop raising process and consequently the loop forming yarn was not knitted-in under tension. Therefore the fabric constructed in this manner did neither comprise securely knitted-in textured yarns nor was it suitable in a touch and close fastener.

There was not sufficient evidence that the sample according to D2 was a prior art product since the time and further circumstances of its use had not been substantiated.

Therefore, since the Appellant failed to show that the subject-matter of claim 1 and 6 lacked an inventive step, the appeal should be dismissed.

**Reasons for the Decision**

1. The appeal is admissible.

2. **Admissibility of document D16**

   According to Article 114(2) EPC the Board has the discretion to disregard facts or evidence which are not submitted in due time.

   In the present case the new document D16 concerns a mere completion of Mr Beal's statutory declaration D7...
and is intended for further clarification of the prior use of the Kohler machine according to D1 alleged when filing the opposition. Therefore the Board considers it to be admissible for reasons of completeness of the basis for its decision.

3.  Novelty

3.1 The appellant relied essentially on the disclosures of D1 and an alleged prior use of the machine described therein (the "Kohler machine") to manufacture tapes in accordance with D2 and D9 to D11, as a basis for its submission that the method of claim 1 and the tape of claim 6 lacked novelty.

However, even when accepting that the method of claim 1 and the warp knitted tape according to claim 6 of the patent in suit could be carried out or produced, respectively, on the Kohler machine, which was not in dispute, sufficient proof is lacking that the normal use of the Kohler machine necessarily would lead to the method of claim 1 or the tape of claim 6.

Mere allegations according to which textured yarns normally were applied when using the Kohler machine for making tapes or the mere possibility that textured yarns could have been used if one would have tried to do so, cannot be accepted as conclusive evidence for lack of novelty of the claimed subject-matter.

In this respect it has to be noted that the allegedly novelty destroying sample tapes provided by the appellant do not show that the floats of textured yarn are knitted-in (in the sample D2 the threads are easily extensible and therefore cannot be knitted-in) or
produce or define a loop pile comprising a mat of tangled loops (D 10 and D 11). Also the order according to D9 lacks any information about the knitting-in of a textured yarn to produce such a mat.

3.2 Also the further cited documents cannot be considered to prejudice novelty of the method and the product of claims 1 and 6, respectively. In contrast to the loop-raised fabric construction disclosed in D12 the subject-matter of the patent concerns a tape whereas D12 relates to a fabric. Additionally this prior art document does not mention the knitting-in of textured yarns under tension thus producing a loop pile comprising a mat of tangled loops after relaxation since according to D12 the loops are produced in a different manner i.e. in an additional loop-raising process.

3.3 The warp knitted tape of D3 has a pile portion including pile-loops arranged in a meandering fashion whereas D4 also relates to a warp knitted fabric comprising a plurality of upstanding pile loops, at least some of them being severed to form hooks. From the subject-matter disclosed in D3 and D4 the claimed invention therefore also differs by the feature that the floats of knitted-in textured yarn are producing or defining a loop pile comprising a mat of tangled loops.

3.4 D5 mentions textured yarns for use in a warp knitted fabrics, e.g. jersey fabric, for design purposes. Any indication to apply those yarns in order to produce a loop pile is missing in this publication.

Consequently the claimed subject-matter is assessed as complying with the requirement of novelty
(Article 54(1) EPC).

4. **Inventive step**

4.1 The closest prior art is represented by D3 which
discloses a warp knitted tape for use in hook-and-loop
fasteners comprising a pile portion including pile-
loops arranged to extend longitudinally in meandering
fashion so as to prevent said pile-loops from tilting
down flat on the surface of the tape.

4.2 Based on this known method of production and the tape
produced by that method the object of the present
patent is to provide a loop pile tape with high density
of loops for the hook pile of the mating tape to engage
with whilst keeping usage of the loop forming yarn to a
minimum. A further object is to provide a ground fabric
construction which is resistive to distortion or
deformation caused by pulling away of the hook pile of
the mating tape (see column 1, lines 6 to 12 of the
patent description).

The solution of these problems is achieved by the
method of producing a warp knitted tape according to
claim 1 and the warp knitted tape according to claim 6.

4.3 The Appellant is of the opinion that the method of
claim 1 and the subject-matter of claim 6 are obvious
to a skilled person as is indicated in the statutory
declarations of Mr Beal and Mr Burton (D7, D8 and D16).
However, from these documents it can only be derived
that the authors were of the opinion that the claimed
tape could have been produced on the Kohler machine
(which was not disputed by the Respondent) and that, in
accordance with a mere statement in D16, textured yarns
had been used on all types of knitting machines. In the absence of any verifiable facts or at least a suggestion derivable from the cited prior art to lead the skilled person actually to incorporate a textured yarn in a tape in accordance with D3 or in a method derivable from D1 the conclusions drawn from the statutory declarations are considered mere speculations and are therefore not probative.

Irrespective of the question when and on which machine the samples according to D10 and D11 were produced it follows by visual inspection that the warp knitted tapes in accordance with the samples are not suitable for use in a touch and close fastener because they do not include a loop pile comprising a mat of tangled loops or lack the knitted-in resistance to distortion or deformation caused by pulling away of the hook pile of a mating tape. Even considering that the floating wales on their surfaces might contain textured yarns, the threads are not securely enough knitted-in and also do not form a mat of tangled loops. Therefore these tapes cannot give an incentive to provide the warp knitted tape claimed in the patent in suit.

4.4 The further prior art documents do not come closer to the claimed subject-matter than the documents and evidence discussed above. Particularly the features that the floats of knitted-in textured yarn are producing (claim 1) or defining (claim 6) a loop pile comprising a mat of tangled loops are not derivable from any prior art disclosure. Consequently the method of claim 1 and the tape of claim 6 could not be arrived at without the involvement of an inventive step (Article 56 EPC).
5. Summarising, the Board concludes that the patent complies with the requirements of Articles 54 and 56 EPC. Objections with regard to Article 100(b) EPC were no longer raised in the appeal proceedings, and also the Board does not see any infringement of this provision. Therefore the Appeal cannot succeed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

M. Patin P. Alting van Geusau