

Publication in the Official Journal ~~Yes~~ / No

File Number: T 406/89 - 3.2.3  
Application No.: 81 110 737.4  
Publication No.: 0 055 469  
Title of invention: Eight harness papermaking fabric

Classification: D21F 1/00

**D E C I S I O N**  
of 3 May 1991

Proprietor of the patent: Albany International Corporation  
Opponent: Andreas Kufferath GmbH & Co KG

Headword:

EPC Article 56

Keyword: "Inventive step (no)" - "least extensive modification among a multitude of possibilities"

**Headnote**



Case Number : T 406/89 - 3.2.3

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.3  
of 3 May 1991

**Appellant :**  
(Opponent)

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**Respondent :**  
(Proprietor of the patent)

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**Decision under appeal :**

Decision of the Opposition Division of the  
European Patent Office dated 17 May 1989  
rejecting the opposition filed against European  
patent No. 55 469 pursuant to Article 102(2)  
EPC.

**Composition of the Board :**

**Chairman :** C.T. Wilson  
**Members :** K. Stamm  
F. Benussi

## Summary of Facts and Submissions

I. European patent No. 0 055 469 was granted on 5 November 1986 with four claims in response to the European patent application No. 81 110 737.4 filed on 23 December 1981.

II. Granted Claim 1 reads as follows:

"1. A papermaking fabric having machine direction and cross machine direction thread systems that interlace with one another to form thread knuckles in each thread system on opposite sides of the fabric, said fabric having a weave repeat pattern of eight crossovers for each thread system, the cross machine direction threads (18) having long knuckles (23) of at least six crossovers in length, and the threads of both thread systems being of a polymeric material, characterized by the cross machine direction threads (18) being woven in a 2 x 6 pattern and the machine direction threads (17) being woven in a 1 x 4 x 1 x 2 pattern."

III. A Notice of Opposition was filed against the European patent on 4 August 1987 requesting revocation of the patent since its subject-matter was neither novel nor inventive with respect to documents

(1) DE-A-2 853 564,

(2) DE-A-3 008 344.

IV. In its decision, dated 2 March 1989, and issued on 17 May 1989, the Opposition Division rejected the opposition. In its view the subject-matter of Claim 1 was novel and based on an inventive step; the appendent Claims 2 to 4 were covered by Claim 1.

- V. The Appellant filed a Notice of Appeal and paid the Appeal fee on 23 June 1989. The Statement of Grounds was filed on 16 September 1989. The Appellant argued that the subject-matter of Claim 1 was doubtful as regards novelty and that it lacked an inventive step with regard to document (1). The subject-matter of appendent Claims 2 and 3 was obvious with regard to the same document. Claim 4 was not understandable because of the term "the plane difference" and could also not involve an inventive step.
- VI. In his observations filed on 26 January 1990, the Respondent submitted that the Appellant argued in a manner only apparent with the hindsight knowledge of the disclosure of the patent in suit.
- VII. The Appellant requests that the contested decision be set aside and the patent be revoked. Oral proceedings are auxiliarily requested.
- The Respondent requests rejection of the Appeal. A request for oral proceedings was withdrawn and replaced by a request that the case be dealt with in correspondence.
- VIII. In a communication according to Article 110(2) EPC dated 20 December 1990 the Board informed the Respondent that it was of the opinion that the subject-matter of Claim 1 lacked an inventive step. No response was filed on behalf of the Respondent within the given period of two months.

#### Reasons for the Decision

1. The appeal is admissible.

## 2. Novelty

Document (2) does not comprise all the features of Claim 1, in particular not the pattern of 2 x 6 and 1 x 4 x 1 x 2 of the threads defined in the characterising portion of the claim. The other documents are less relevant. The subject-matter of Claim 1 is, therefore, novel in compliance with Article 54 EPC.

The Board cannot follow the arguments of the Appellant that document (1) already would have disclosed the subject-matter of Claim 1. A general implication only, without any exact information concerning the claimed features, is no reliable basis for denying novelty.

## 3. Technical distinction of the claimed subject-matter

The prior art portion of Claim 1 is based on document (2). Fabrics according to this document offer properties making them well adapted to "Prägetücher" which have a soft and absorbing, wet-laid "Papierbahn". Compressed zones alter with uncompressed ones. The fabric is especially favourable for "Krepppapier", having a high volume. In this document (Figure 14, page 21, second paragraph) a fabric is suggested having a weave repeat pattern of eight crossovers in the "machine direction (MD)" and likewise in the "cross machine direction (CD)", using patterns of 1 x 7 respectively.

The fabric according to the characterizing portion of contested Claim 1 is distinguished from document (2) by weave repeat patterns different in the two directions MD and CD. Instead of the former pattern, equal in both thread directions, according to Claim 1 now a pattern of 2 x 6 in the cross machine direction and a pattern of 1 x 4 x 1 x 2 in the machine direction are specified.

With regard to document (2) it is to be stated that the characteristics contribute to better binding stability and to increased void volume.

#### 4. Technical problem and solution

The object of the invention, as stated in the description of the invention, is to provide a dimensionally stable paperforming fabric which has enhanced water drainage capacity and improved wear behaviour. It appears convincing that these aims are achieved by the characteristics of the invention: The increased internal void volume influences favourably the water content. The long cross machine direction thread knuckles may be provided on the wear side of the fabric to increase fabric life. If they are on the paperforming side of the fabric a better fibre and paper support is the result. Also the dimensional stability is evidently improved.

#### 5. Inventive step

5.1 The skilled person who looks for improving the eight crossover harness fabric according to document (2) finds in document (1) solutions referring to the very same problems posed to himself and mentioned there explicitly (cf. page 4, second paragraph). He will be interested in the favoured example shown in the drawing (Figures 1, 2A and 2B), which corresponds to Claims 9 and 10, where a pattern of 2 x 8 threads is suggested for the cross machine direction, for the machine direction a pattern of 1 x 2 x 1 x 6, thus providing 10 threads in both directions.

The skilled person realises that the pattern he is interested in requires two threads less than the pattern shown in (1). He sees that the solution in (1) presents knuckles of 8 and 6 threads, apparently rather high

quantities. It would be evident to the skilled person that a simple modification with minimal changes is achievable - for providing the difference of two threads - when the knuckle zones are reduced accordingly, thus forming knuckle zones of 6 and 4 only, instead of 8 and 6. The skilled person would then, by means of an obvious simple modification of the pattern of ten threads in document (1) arrive at a pattern of eight threads as defined in contested Claim 1.

- 5.2 The above obviousness-considerations are not based on the knowledge of the invention. Certainly the Respondent's assertions are accepted according to which a vast multitude of weave patterns is possible. It belongs nevertheless to the working methods of the skilled man to investigate more closely the easiest, apparently least extensive modifications of a known solution - having regard to the conditions given by the posed problem. In applying his skill in such a manner the relevant person skilled in the art would come necessarily across the solution defined in Claim 1.

The subject-matter of Claim 1 would, thus, be deduced for the skilled person in an obvious manner having regard to documents (1) and (2).

- 5.3 Claims 2 to 4, appendent to Claim 1, do not include subject-matter which would appear as inventive solution of a technical problem. Either providing the long knuckles of the cross machine direction threads on the paper forming side of the fabric (Claim 2) or said knuckles extending outwardly of the machine direction thread knuckles (Claim 3) are simple technical measures which appear to be obvious modifications of Claim 1. As regards Claim 4, the numeric relationship of the "plane difference" (assumed distances of the planes) between the knuckle crests of the

two thread systems in respect of the diameter of the long knuckle threads on the fabric side presents rather a usual design-necessity within technically given ranges.

- 5.4 Claims 1-4 contravene Article 56 EPC and thus are not patentable in respect of Article 52(1) EPC.

**Order**

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

1. The decision under Appeal is set aside.
2. The patent is revoked.

The Registrar:



N. Maslin

The Chairman:



C.T. Wilson

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