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**D E C I S I O N**  
**of 8 June 2001**

**Case Number:** T 0183/97 - 3.2.6

**Application Number:** 89309775.8

**Publication Number:** 0361855

**IPC:** D04B 1/22

**Language of the proceedings:** EN

**Title of invention:**  
Upholstery fabric

**Patentee:**  
Lear Corporation

**Opponents:**  
Universal Maschinenfabrik Dr. Rudolf Schieber GmbH & Co. KG  
Marco Steiner

**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 52(1), 56, 123(2)

**Keyword:**  
"Amended feature clearly derivable from the application as  
filed - yes"  
"Inventive step (main request and 1st to 3rd auxiliary  
requests) - no"

**Decisions cited:**  
-

**Catchword:**  
-





Case Number: T 0183/97 - 3.2.6

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.6**  
**of 8 June 2001**

**Appellant:**  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 3 February 1997  
revoking European patent No. 0 361 855 pursuant  
to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** P. Alting van Geusau

**Members:** G. C. Kadner

M. J. Vogel

## Summary of Facts and Submissions

- I. The mention of the grant of European patent No. 0 361 855 in respect of European patent application No. 89 309 775.8 filed on 26 September 1989 was published on 7 June 1995.

Granted claim 1 reads as follows:

"A piece (3) of machine-knitted upholstery fabric for covering at least part of the surface of a three-dimensional support (2), having one or more portions of tubular fabric (12-15) at (a) location(s) where each such tubular portion can serve as an anchorage device for facilitating the securing of the upholstery fabric piece (3) to said support (2) characterised in that the one or more portions of tubular fabric (12-15) are integrally knitted with the upholstery fabric piece (3) as a one-piece fabric."

- II. Notice of opposition was filed on 6 March 1996 by Respondent I (Opponent I) and on 7 March 1996 by Respondent II (Opponent II) on the grounds of Article 100(a) EPC. In respect of an alleged lack of novelty and inventive step the Respondents relied mainly upon the following prior art documents:

(D2) DE-U-86 29 570

(D5) US-A-4 232 899

The Appellant (Patentee) cited in opposition proceedings:

(D9) David J. Spencer: Knitting Technology, Pergamon

Press 1983, page 71

- III. By decision posted on 3 February 1997 the Opposition Division revoked the European patent No. 0 361 855.

The Opposition Division was of the opinion that the subject-matter of granted claim 1 did not involve an inventive step. Regarding the upholstery fabric of the closest prior art disclosed in D2 and the well known use of tubular fabric portions for securing upholstery fabric to a support disclosed for example in D5, a skilled person would regard the inclusion of these known tubular fabric portions in the fabric described in D2 as a normal design possibility for facilitating the securing of the upholstery fabric piece to the support. Therefore, the teachings of D2 and D5 led the skilled person in an obvious manner to the subject-matter of the granted claim 1.

- IV. On 13 February 1997 notice of appeal was lodged against this decision and the appeal fee was paid on the same date.

Together with the statement of grounds of appeal, filed on 10 May 1997, the Appellant filed new claims in accordance with three auxiliary requests.

- V. In a communication annexed to the summons to attend oral proceedings the Board expressed its preliminary opinion according to which the subject-matter of claim 1 of the main request and first auxiliary request appeared to lack novelty, and the subject-matter of the claims of second and third auxiliary request appeared to lack inventive step.

VI. Since all three parties submitted in writing that they would not take part in the oral proceedings (see Appellant's letter dated 29 January 2001 and Respondents' letters dated 4 January 2001 and 5 February 2001) the oral proceedings were cancelled.

In its written submissions the Appellant requested that the decision under appeal be set aside and that the patent be maintained with claim 1 as granted (main request);

auxiliary with claim 1 based on granted claim 1 and amended to take account of D2 taken as the closest prior art (auxiliary request I);

auxiliary with claim 1 based on a combination of granted claims 1 and 9 (auxiliary request II);

auxiliary with claim 1 based on a combination of granted claims 1, 5 and 7 (auxiliary request III);

Claim 1 of the first auxiliary request was not specifically formulated.

Claim 1 of the second auxiliary request reads as follows:

"A piece (3) of machine-knitted upholstery fabric for covering at least part of the surface of a three-dimensional support (2), having one or more portions of tubular fabric (12-15) at (a) location(s) where each such tubular portion can serve as an anchorage device for facilitating the securing of the upholstery fabric piece (3) to said support (2) characterised in that the

cover is a one-piece fabric cover shaped in knitting process to fit the three-dimensional support and the one or more portions of tubular fabric (12-15) are integrally knitted with the upholstery fabric piece (3) as a one-piece fabric."

Claim 1 of the third auxiliary request reads as follows:

"A piece (3) of machine-knitted upholstery fabric for covering at least part of the surface of a three-dimensional support (2), having one or more portions of tubular fabric (12-15) at (a) location(s) where each such tubular portion can serve as an anchorage device for facilitating the securing of the upholstery fabric piece (3) to said support (2) characterised in that at least one anchorage device comprises portions of tubular fabric (12-15) that are integrally knitted with the upholstery fabric piece (3) as a one-piece fabric and formed as single jersey knitting extending in a course-wise direction, and being located intermediate the margins of the fabric piece."

VII. The Appellant's submissions in support of its requests can be summarized as follows:

The prior art upholstery fabric according to D2 would not prejudice the patentability of the claimed subject-matter since, when considering "Langenscheidts enzyklopädisches Wörterbuch, Teil II Deutsch-Englisch" (D10) the term "angestrickte Schlaufen" disclosed therein addressed a mere "loop" or "noose". Such elements could not be compared with the tubular fabric portions of the claimed upholstery fabric because they provided a different shape and function. The known



loops were intended for inserting reinforcing elements or fixing elements e.g. wires, and suited as joining elements of separately knitted fabric pieces by passing wires through alternatively located loops of adjacent edges of fabric. A skilled person was not led to use these loop portions as anchorage devices.

A skilled person having knowledge of D2 and wishing to secure the cover of D2 to a support would, if aware of the contents of D5 and D6 be guided to turn and sew hems along the edges of the panels. There was no guidance from either D2 itself or D5, D6 to integrally knit tubular portions in locations where the tubular portion could act as anchorage devices.

VIII. The Respondents requested dismissal of the appeal and essentially relied on the following submissions:

In contrast to the opinion expressed by the Appellant, D10 indicated that "angestrickte Schlaufen" had the same meaning as tubular portions of the patent in suit. These elements clearly were intended as fixing elements or anchorage devices. Therefore a skilled person would recognize that these elements of the cover disclosed in D2 would be suitable for the function as claimed in claim 1 of the patent in suit.

A one-piece fabric was also disclosed in D2 and D5, and the further restricting features of the claims of the auxiliary requests did not add anything that was not obvious to a skilled person.

Claim 1 of the third auxiliary request contained at least partially new subject-matter which was not disclosed in the application as filed, and therefore

was not allowable under Article 123(2) EPC. The feature "*... portions of tubular fabric ... extending in a course-wise direction ...*" was not present in the application documents as originally filed. Additionally, the subject-matter of claim 1 could not be considered to be inventive since it was based on measures which were included in the common knowledge in the art. The location of tubular fabric portions intermediate the margins of the fabric was disclosed in Figure 4 of D2. Knitting of a fabric in a double jersey structure was absolutely usual in the art, and for a skilled person it was clear that in this case the extending tubular fabric portions could only be knitted in single jersey method. Furthermore the skilled person would select the extension of these tubular portions in any suitable direction of the fabric without taking an inventive step.

### **Reasons for the Decision**

1. The appeal is admissible.
2. *Objections under Article 123(2) EPC*
  - 2.1 The Respondents were of the opinion that claim 1 of the third auxiliary request contained new subject-matter which was not disclosed in the application as filed. In particular the feature that the "*tubular fabric extends in a course-wise direction*" allegedly was not derivable from the original disclosure.
  - 2.2 However, the Board considers that this amendment is derivable by a skilled person from claim 3 of the

patent in suit and of the originally filed application, respectively. According to the wording of claim 3 the axis of the tubular fabric portion alternatively can be directed parallel or at right angles to the wales of the fabric piece. In the latter case this means that the tubular portion extends in the direction of the courses because it is self-evident in warp knitting technology that the courses are at right angles to the wales. Therefore claim 1 of the third auxiliary request complies with Article 123(2) EPC.

3. *Main request*

3.1 As was already indicated in its communication the Board does not agree with the Appellant's interpretation concerning the disclosure of D2, in particular as concerns the interpretation of the terms "Schlaufen" and "Schlingen". In the Board's opinion said "Schlaufen" are short tubular portions consisting of several stitches whereas said "Schlingen" consist of single threads, forming piles. As is indicated with reference number 44 in Figure 4 (see page 8, lines 6 to 7) the loops 44 (Schlaufen) comprise several stitches into which a reinforcement element is knitted in whereas loop-stitches 22 (Schlingenmaschen) consisting of a single thread are shown in Figure 2 (see page 7, line 24). In this respect the dictionary D10 relied upon by the Appellant does not lead to another interpretation of the terms concerned.

3.2 D2 discloses a piece of machine-knitted upholstery fabric covering part of a three-dimensional support like a seat (figure 1; page 1, lines 16 to 17; page 2, lines 8 to 9). This upholstery fabric has portions of tubular fabric ("Schlaufen" 44) which according to the

description are suitable for insertion of "Kedern", "Verstärkungselementen" (reinforcement elements) or "Befestigungselementen" (fastening elements) such as wires (Figure 4; page 5, lines 8 to 13). Furthermore the upholstery fabric containing the integrally knitted-in tubular portions can be a one-piece fabric depending on the availability of suitable knitting machines (see page 2, lines 8 to 12). However, since D2 neither discloses the use of tubular portions as an anchorage device for facilitating the securing of the upholstery fabric piece to the support nor is it immediately apparent that the tubular portions are suitable for such use, novelty of the subject-matter of claim 1 is concluded.

3.3 Starting from the closest prior art represented by D2 the object of the patent in suit is to provide a piece of knitted upholstery fabric in a form which facilitates its attachment to a three-dimensional support, such as a vehicle seat cushion (see column 1, lines 34 to 38 of the patent in suit). The solution to this problem is achieved by the use of the one or more portions of tubular fabric (12-15) which are integrally knitted with the upholstery fabric piece (3) as a one-piece fabric so as to serve as an anchorage device for facilitating the securing of the upholstery fabric piece (3) to said support (2).

3.4. D5 discloses a one-piece upholstery cover made from a plurality of upholstery pieces sewn together, positioned over a frame and secured to it by anchorage means consisting of sewn fabric pockets 68 forming fabric tubes in which rigid rods 56 carrying snap swivel clips are inserted (Figure 4; column 4, lines 20 to 30). Therefore, when looking into the relevant prior

art in an attempt to find a solution to the underlying problem of the present patent the skilled person would be led to use the known (short) tubular portions of D2 as anchorage devices for securing the upholstery to the support and arrive at the subject matter of claim 1 without the involvement of an inventive step (Article 56 EPC).

4. *First auxiliary request*

Claim 1 of this request was not submitted with a specific final wording. The Appellant only expressed that he was prepared to make amendments taking account of the subject matter of D2 as closest prior art. Since such an amended claim 1 would contain the identical features of claim 1 of the main request in another order its subject-matter would also not involve an inventive step for the same reasons as applying against the main request.

5. *Second auxiliary request*

When compared to claim 1 of the main request claim 1 of this second auxiliary request includes the additional feature "*the cover is a one-piece fabric cover shaped in the knitted process to fit the three-dimensional support*". This feature is mainly a repetition of features already present in claim 1 of the main request, and is also disclosed in D2 (page 2, lines 10 to 12) because it is an objective of the knitted one-piece fabric cover according to D2 to be formed in such a manner as to fit the upholstery support very well (page 1, lines 33 to 34). The subject-matter of this claim 1 therefore also does not comply with the requirement of Article 56 EPC.

6. *Third auxiliary request*

- 6.1 When compared to claim 1 of the main request, claim 1 of the third auxiliary request includes the additional features according to which *"at least one anchorage device comprises portions of tubular fabric ... that are formed as single jersey knitting extending in a course-wise direction, and being located intermediate the margins of the fabric piece"*.
- 6.2 D2 explicitly discloses that tubular fabric portions 44 containing a reinforcement element 45 are integrally knitted-in intermediate the margins of the fabric piece 31 spaced apart from the left and right margin (see Figure 4; page 5, lines 8 to 13; page 8, lines 6 to 7).
- 6.3 If the skilled person carries out the teaching of D2 for manufacturing a fabric as described in its claim 10 (see Figure 5), it is considered obvious to use the well-known double jersey knitting method, whereby the tubular portions can easily be formed by knitting single fabric portions on each one of both needle beds and joining them again after a distance. In order to create protruding tubular portions as shown in Figure 4 the skilled person is caused to use in this knitting method different lengths of courses on both needle beds. By this method usually applied in knitting technology, tubular portions of single jersey knitting are produced in an obvious manner. The orientation of the tubular portions in a course-wise direction cannot in itself be considered inventive either because the skilled person would select whatever position was needed for the special purpose, particularly considering the requirement of e.g. upholstery for car seats to be securely fixed to the surface contour of

the seat (see Figure 1 of D2).

Additionally, although in D2 the direction of the courses is not explicitly mentioned, in comparison with figure 5 the skilled person acknowledges the courses being directed parallel to the tubular portions comprising the reinforcement element 44 as shown in figure 4, thus prejudicing the presence of an inventive step.

7. Summarising, for the above reasons the Board arrives at the conclusion that the subject-matter of each claim 1 of the main request and of the three auxiliary requests does not comply with the requirements of patentability according to Article 52(1) EPC, and that revocation of the patent under Article 100(a) EPC is therefore justified.

## **Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:

M. Patin

P. Alting van Geusau