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D E C I S I O N
of 19 May 2003

Case Number: T 0179/02 - 3.2.4

Application Number: 95905560.9

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Language of the proceedings: EN

Title of invention:
Trousers with hip protectors

Patentee:
TYTEX A/S

Opponent:
Suomen Punainen Risti

Headword:
-

Relevant legal provisions:
EPC Art. 100(a), 54(3), (4), 104

Keyword:
"Novelty (yes)"
"Inventive step (yes)"
"Apportionment of costs (no)"

Decisions cited:
T 0323/89, T 0117/86, T 0113/96

Catchword:
-



Case Number: T 0179/02 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 19 May 2003

Appellant: Suomen Punainen Risti
(Opponent) Tehtaankatu 1a
FI-00140 Helsinki (FI)

Representative: Hakola, Unto Tapani
Tampereen Patenttitoimisto Oy,
Hermiankatu 12B
FI-33720 Tampere (FI)

Respondent: TYTEX A/S
(Proprietor of the patent) Industrivej 21
DK-7430 Ikast (DK)

Representative: Nielsen, Leif
Patrade A/S
Fredens Torv 3A
DK-8000 Aarhus C (DK)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 27 November 2001
rejecting the opposition filed against European
patent No. 0 802 739 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: C. A. J. Andries
Members: C. D. A. Scheibling
M. K. S. Aúz Castro

Summary of Facts and Submissions

- I. By its decision dated 27 November 2001 the Opposition Division rejected the opposition. On 6 February 2002 the appellant (opponent) filed an appeal. The appeal fee was paid on 1 February 2002. The statement setting out the grounds of appeal was received on 8 April 2002.
- II. The patent was opposed on the grounds based on Articles 100(a) and (b) EPC. The ground for opposition based on Article 100(b) EPC was not maintained during the appeal proceedings.
- III. Oral proceedings took place on 19 May 2003.
- IV. The appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked.

The respondent (patentee) requested that the appeal be dismissed and that the costs of the appeal proceedings be apportioned.

- V. The following documents played a role in the appeal proceedings:

E1: WO-A-95/19154

D1: Lauritzen and Lund "Impacts in patients with hip fractures and in vitro study of the padding effect: Introduction of a hip protector"; Acta Orthop Scand 1990; 61 (Suppl 239); page 11

- D2: Lauritzen et al: "Effect of external hip protectors of hip fractures"; The Lancet; Vol 341; 2 January 1993; pages 11 to 13
- D3: Lauritzen et al: "Prevention of hip fractures by external hip protectors"; Tapaturmatutkimus-symposiumi; 12 May 1993; page 4
- D6: T. Järvinen: "The test protocol and report on flexibility of two hip protectors", Tampere, 14/04/1999, three pages
- D7: T. Järvinen: "The test protocol and report on flexibility of two hip protectors: part II", Tampere, 14/04/1999, three pages
- D11: Two affidavits of Professor Pekka Kannus (filed with the grounds of appeal) both dated 27 March 2002, the second affidavit relating to a test protocol and report on flexibility of a polypropylene hip protector.

VI. Claim 1 as granted and maintained in opposition reads:

"1. Pants (21) with hip protectors (1) having a belly portion, a buttock portion (22) and a crotch portion positioned (26) between openings (25) for both legs, wherein each of said hip protectors is flexible, that each of said hip protectors is located in a pocket means (23) at positions corresponding to the neck of the femur on both sides of right and left when said pants are being worn, **characterized** in that each of said hip protectors (1) is formed in an approximately domed shape so as to cover a portion corresponding to a neck of a femur, and that the hip protectors have

flexibility with the following flat compressive strength (A) and lateral compressive strength (B):
(A) a flat withstand load in 10 mm displacement of 196 to 980N (20 to 100 kgf),
(B) a lateral withstand load in 10 mm displacement of 49 to 294N (5 to 30 kgf)".

Reasons for the Decision

1. The appeal is admissible.
2. *Novelty*
 - 2.1 With respect to E1 and D11
 - 2.1.1 E1 has to be considered according to the provisions of Article 54(3) and (4) EPC and thus, E1 has not to be considered in deciding whether the subject-matter of claim 1 of the patent in suit involves an inventive step.
 - 2.1.2 The appellant put forward that E1 discloses a hip protector exhibiting the same dimensions and being made of the same material as the hip protector according to the patent in suit. He therefore concluded that the flat and lateral compressive strengths of said hip protectors must also be the same.
 - 2.1.3 The Board agrees that, should all the dimensions of the two hip protectors (according to E1 and to the patent in suit) be equal and should the materials used for manufacturing the hip protectors be the same, then the flat and lateral compressive strengths of said hip protectors would also be the same.

However, the dimensions of the hip protector which exhibits the flat and lateral compressive strengths as claimed and which are indicated in the patent in suit refer to an embodiment comprising a core member (Figures 1 to 7). Thus, in order to conclude that a hip protector according to E1 has the same flat and lateral compressive strengths as the one claimed in the patent in suit, the core member of the hip protector of E1 should also have the same thickness as the core member of the hip protector of the patent in suit. However, E1 does not indicate said thickness.

2.1.4 In this respect, the appellant referred to E1, page 3, lines 34, 35 where it is stated "Figs. 2 through 7 are substantially life-sized views of the hip protector 4 of this invention". He argued that the thickness of the core member could thus be measured on Figure 7 of E1.

The Board cannot agree therewith. First of all the use of the word "substantially" indicates that no precise measurement can be obtained from the figures. Furthermore, even if one would try to measure the thickness of the core member in Figure 7 of D1, one would find that said thickness is not constant over the whole length of the core member, so that it is not possible to deduce a clear value of the core thickness from said figure. Therefore the Board concludes that the value of the thickness of the core member cannot be measured on Figure 7 of E1.

2.1.5 Furthermore, although in both, in the patent in suit and in E1 the padding of the hip protector is said to be made of polypropylene foam (patent in suit: page 4, line 11; E1: page 4, lines 32 and 33 and page 6, line 14), it is not at all clear which kind of foam

material is used. Whereas E1 only states that it should be a foamed **rigid** thermoplastic material (claim 1 and page 4, line 32), which is a closed-cell thermoplastic material (claim 2), the patent in suit appears to make a difference between polypropylene foam for the padding and **hard** propylene for the reinforcing core. E1 furthermore does not give any further information about the foam parameters whereas the patent in suit indicates clearly that the foam parameters should be chosen in such a manner that the value of the resultant compressive strengths A and B of the hip protector should fall into certain ranges, defining thereby indirectly the quality of the foam used.

The appellant argued that it was clear for a skilled person that the polypropylene foam had to be rigid and was not a soft padding and that there was not much difference between the mechanical characteristics of various polypropylene foams.

However, the Board considers that a very strict approach should be followed when evaluating the novelty requirement. Therefore, the statement that "there is not much difference" cannot lead to the conclusion that all polypropylene foams have equivalent mechanical characteristics. Therefore, the hip protectors according to E1 and to the patent in suit cannot be said to be made of the same material.

2.1.6 Finally the depth of the respective domes is different in E1 and in the patent in suit.

2.1.7 Consequently, since not all dimensions are the same and since the same kind of material is not unequivocally disclosed, it is not possible to draw the conclusion that E1 exhibits the same flat and lateral compressive strengths as those claimed in the patent in suit.

2.1.8 D11 is an affidavit and test report of Professor Pekka Kannus (filed with the statement setting out the grounds of appeal). It was filed to demonstrate that the flat and lateral withstand loads in 10 mm displacement of a protector shell according to E1 fall within the load ranges claimed in the patent in suit.

It appears from D11 that the hip protector tested and reported on therein has been specially manufactured for said purpose, using the teaching of E1.

However, E1 is silent about the thickness of the core member and the specific foam parameters to be used. Thus, at least the core member of the tested hip protector has not been manufactured according to specific indications present in E1. However, the thickness of the core member has a direct influence on the test results to be obtained (see also D11, first affidavit, page 2, lines 16 to 20).

The test furthermore started with the knowledge of the patent in suit, since Mr Kannus was given the values of compressive strength indicated in the patent in suit, see D11, first affidavit, page 1, paragraph II, ultimate sentence "I was especially requested to examine whether, using the teaching of the E1, a person skilled in the art is able to prepare a hip protector shell ... which falls within the above given load ranges of P1 (patent in suit)".

As a matter of fact, the test reported on in D11 was carried out to see if it is possible to create a hip protector which fulfils the dimensional requirements of E1 and which also falls within the load ranges of the patent in suit. This however does not prove that E1 discloses enough indications to manufacture a hip protector which due to these specific indications falls within the load ranges of the patent in suit. On the contrary, it was necessary to complete the teaching of E1 by selecting not only the core thickness but also the material in order to arrive at the aimed load ranges. However, this way of proceeding is clearly an ex post facto approach.

2.2 With respect to the other documents which played a role in these proceedings

2.2.1 D1, D2 or D3 do not give any information about the flat and lateral compressive strengths of the therein disclosed hip protectors.

2.2.2 D6 and D7 relate to test reports effected on hip protectors or parts of them. They do not relate to pants with hip protectors as claimed in the patent in suit.

2.3 Thus none of the documents on file discloses all of the features of the subject-matter of claim 1 of the patent in suit. Consequently, the subject-matter of claim 1 of the patent in suit is novel with regard to the cited documents.

3. *Closest prior art document*

The appellant contended D1 or D2 to be the closest prior art document. The Board considers D2 to have more features in common with the subject-matter of claim 1 of the patent in suit than D1. Thus, D2 is considered to be the closest prior art document.

From D2 (page 11, paragraph entitled "Hip protectors" two ultimate sentences; page 11, last paragraph, lines 6 to 8; page 12, photograph) there is known a special underwear (underpants) with hip protectors wherein each of said hip protectors is flexible (implicit due to the material used) and is located at positions corresponding to the neck of the femur and wherein the outer shield of the hip protector is made of polypropylene and the inner part is made of plastozote.

4. *Problem to be solved*

4.1 Thus the subject-matter of claim 1 differs from that of D2 in that:

"The special underwear are pants having pocket means, that each of said hip protectors is located in a pocket means on both sides of right and left when said pants are being worn, that each of said hip protectors is formed in an approximately domed shape so as to cover a portion corresponding to a neck of a femur, and that the hip protectors have flexibility with the following flat compressive strength (A) and lateral compressive strength (B):

(A) a flat withstand load in 10 mm displacement of 196 to 980N (20 to 100 kgf),

(B) a lateral withstand load in 10 mm displacement of 49 to 294N (5 to 30 kgf)".

4.2 The appellant alleged that the problem to be solved was to protect elderly people easily falling down from being injured.

4.3 However, this proposed problem takes not into consideration that the hip protectors are used in pants provided with pocket means to accommodate said hip protectors.

Therefore, the Board considers that the problem to be solved is to provide an underwear with protectors which do not become a nuisance when walking, are easy to put on and take off and which can protect the neck of the femur (patent in suit, page 2, lines 35, 36).

5. *Inventive step*

5.1 The respondent argued that D2 (photograph) obviously discloses underwear with pocket means with an approximately dome shaped hip protector and that the values for the flat and lateral compressive strength claimed in the patent in suit were those commonly used for hip protectors.

5.2 However the Board cannot reach the same conclusions. D2 refers to special underwear and to underpants. However, no specific information is given about these underpants, let alone pants having pocket means. The photograph reproduced in D2 is not conclusive on the type of underwear used, nor does it unambiguously show

pocket means. At the priority date of the patent in suit, pants were not the sole type of special underwear in use in order to position hip protectors. As a matter of fact, belt like underwear was also used to position hip protectors, as shown for example in US-A-3 526 221.

5.3 Furthermore, the test reported on in D6 clearly indicates that the lateral withstand load of the hip protector named "SAHVA" falls outside of the range claimed in claim 1 of the patent in suit (38 N versus 49 to 294 N). Therefore, it cannot be concluded that the claimed values are the values commonly used in the art.

5.4 Moreover, neither D1 nor D3 give any indication which could lead a skilled person to the subject-matter of claim 1 of the patent in suit.

D1 discloses a molded hip protector comprising an outer shell made of PP (which probably means polypropylene), an inner cup made of plastozote and having the following dimensions 12 x 12 x 4 cm.

D3 discloses hip protectors comprising a hard outer shell made of polypropylene and a soft inner shell made of plastozote, the protectors being fixed in pockets in special underwear.

5.5 Thus, any combination of the teaching of D1, D2 and D3 would fail to disclose pants having hip protectors having flexibility with a flat compressive strength and lateral compressive strength as claimed in claim 1 of the patent in suit.

5.6 Therefore, the subject-matter of claim 1 of the patent in suit involves an inventive step.

6. *Apportionment of costs*

6.1 According to Article 104(1) EPC each party to the proceedings shall meet the costs he has incurred unless, for reasons of equity, a different apportionment of costs is ordered.

6.2 The respondent argued that D11 (filed with the statement setting out the grounds of appeal) could already have been filed during the opposition proceedings. He argued that D11 was late filed, difficult to understand and that by basing the arguments forwarded in the statement setting out the grounds of appeal mainly on the late filed D11 higher costs have been incurred as a result. The respondent referred in this respect to the decisions T 323/89 and T 117/86.

6.3 In T 323/89 as well as in T 117/86 the concerned Boards of Appeal considered that the introduction of new prior art more than two years after expiry of the opposition period had put the patent proprietors to extra expense.

However, in the present case, no new prior art has been filed. The test report D11 has been filed to back up the reasoning already put forward before the first instance with respect to E1. Therefore, the Board considers, that the filing of a new test report in the framework of the existing case, in order to reinforce the line of attack already made before the first instance has to be considered as the normal behaviour of a losing party, which under normal circumstances

cannot lead to a different apportionment of costs, particularly if that filing is made at the earliest possible moment in the appeal proceedings, i.e. the filing of the statement setting out the grounds of appeal (see T 113/96, section 11, second paragraph).

6.4 Therefore, the request for apportionment of costs is refused.

Order

For these reasons it is decided that:

1. The appeal is dismissed.
2. The request for apportionment of costs is refused.

The Registrar:

The Chairman:

V. Commare

C. Andries