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Datasheet for the decision of 22 January 2008

Case Number: T 0147/06 - 3.2.06

Application Number: 98102128.0

Publication Number: 0919145

IPC: A41B 11/14

Language of the proceedings: EN

Title of invention:
Gridle for tights

Patentee:
Calzificio Pinelli S.r.l.

Opponent:
Calzificio Ilary S.R.L.
Karin Co., Ltd.

Headword:
-

Relevant legal provisions:
EPC Art. 83, 84

Relevant legal provisions (EPC 1973):
-

Keyword:
"Main request: sufficiency (no)"
"Auxiliary request: clarity (no)"

Decisions cited:
-

Catchword:
-

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Case Number: T 0147/06 **-** 3.2.06

D E C I S I O N
of the Technical Board of Appeal 3.2.06
of 22 January 2008

Appellant: (Patent Proprietor)	Calzificio Pinelli S.r.l. Via Germania, 11 I-46042 Castel Goffredo (Mantova) (IT)
Representative:	Modiano, Micaela Nadia Dr. Modiano & Associati SpA Via Meravigli 16 I-20123 Milano (IT)
Respondent: (Opponent OI)	Calzificio Ilary S.R.L. Via Martiri della Libertà, 43 I-25010 Visano (BS) (IT)
Representative:	Ghioni, Carlo Raoul Maria c/o Bugnion S.p.A. Via Dante 17 I-25122 Brescia (IT)
(Opponent OII)	Karin Co., Ltd. 22-33, Nipponbashi 1-chome, Chuo-ku Osaka-shi Osaka (JP)
Representative:	Schiuma, Daniele Wolfgang Müller-Boré & Partner Grafinger Strasse 2 D-81671 München (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted 2 December 2005 revoking European patent No. 0919145 pursuant to Article 102(1) EPC.**

Composition of the Board:

Chairman: P. Alting Van Geusau
Members: G. de Crignis
K. Garnett

Summary of Facts and Submissions

I. European patent No. 0 919 145 granted on application No. 98102128.0, was revoked by the opposition division by decision announced during the oral proceedings on 14 November 2005 and posted on 2 December 2005.

II. The decision of the opposition division was based on the finding that the subject-matter of claim 1 was not sufficiently disclosed (Article 83 EPC) in particular with respect to the features referring to a tuck-stitch mesh having alternating undulations which are considerably in relief with respect to the plain mesh and how such a structure would generate a massaging and tonic action to the wearer's body.

III. On 31 January 2006 the Appellant (patent proprietor) filed a notice of appeal against this decision and paid the appeal fee. The statement of grounds of appeal was filed on 13 April 2006 together with a main request and two auxiliary requests and a request to refer a question to the Enlarged Board of Appeal.

IV. In a communication in preparation for the oral proceedings according to Article 11(1) of the Rules of Procedure of the Boards of Appeal dated 10 October 2007, the Board gave its preliminary opinion on the case and further indicated that the question formulated in the statement of the grounds of appeal by the appellant did not appear to meet the prerequisites of Article 112(1)(a) EPC for the referral of a question to the Enlarged Board of Appeal.

V. Oral proceedings were held on 22 January 2008. The Appellant requested that the decision under appeal be set aside and that the European patent be maintained as granted, alternatively on the basis of the first auxiliary request filed during the oral proceedings. The Respondents requested that the appeal be dismissed.

Claim 1 as granted reads:

"A girdle (1) for tubular stretch tights or pantyhose, characterized in that the regions (A, A1) that constitute the panty and the initial portions (2, 2a) of the stretch hose are constituted by a tuck-stitch mesh (A, A1), comprising a plain background mesh (13) so as to obtain, by combining and knitting in three dimensions particular conventional threads and elastic threads (5) which are meshed together, a mesh having alternating undulations (3, 3a, 4, 4a) which are considerably in relief with respect to the plain mesh (13), such as to generate an adequate compression and thus a massaging and tonic action in the regions of the body contained in the girdle (1). "

Claim 1 according to the first auxiliary request reads:

"A girdle (1) for tubular stretch tights or pantyhose, characterized in that the regions (A, A1) that constitute the panty and the initial portions (2, 2a) of the stretch hose are constituted by a tuck-stitch mesh (A, A1), comprising a plain background mesh (13) so as to obtain, by combining and knitting in three dimensions particular conventional threads and elastic threads (5) which are meshed together, a mesh having alternating undulations (3, 3a, 4, 4a) which are

considerably in relief with respect to the plain mesh (13), such as to generate an adequate compression and thus a massaging and tonic action in the regions of the body contained in the girdle (1), wherein said tuck-stitch mesh is achieved by using conventional automatic circular hosiery knitting machines whereby, starting from a smooth-background mesh pattern, i.e., in which four needles are kept simultaneously fed with thread, in order to obtain a highly raised mesh, the intervention is caused, for every two needles, of another needle which holds the mesh being formed for four turns; during said turns, the needle remains motionless and is fed and shifted with respect to the other needles, until, again by means of suitably preset patterns, the needle with held thread receives the command to perform the so-called "drop". "

VI. In support of its requests the appellant essentially relied upon the following submissions:

The skilled person would have no problem in carrying out the invention as regards the choice of the appropriate knitting machine. Conventional automatic circular hosiery knitting machines which are referred to in paragraph [0015] of the patent in suit encompassed both singular and double cylinder knitting machines. The skilled person would have no difficulty in recognising that a double cylinder knitting machine was suitable to obtain a tuck stitch mesh with alternating undulations for the production of the claimed girdle. In this respect the prior art disclosed in

D3-I GB-A-2146050

relied on the use of double cylinder knitting machines for the manufacture of panty hoses having tuck stitch meshes with undulations on both sides of the mesh.

The subject-matter of claim 1 required alternating undulations which are considerably in relief with respect to the plain mesh. The reliefs should remain intact when the girdle is worn and, accordingly, the term "considerably in relief" implied relatively stiff alternating undulations. In order to obtain such undulations, it would not be a problem for the skilled practitioner to choose an appropriate knitting design comprising tuck-stitches as set out in paragraph [0015] of the patent in suit. Figures 1 to 3 of the patent in suit demonstrated the desired and suitable design.

The feature of claim 1 referring to the massaging and tonic action in specified regions of the body related to an effect which was obtained by a rubbing action when wearing the girdle. Tuck-stitches on both sides added stability to the undulations and thus contributed to the massaging and tonic action. This action was referred to in paragraph [0022] of the patent in suit wherein it was stated that the rubbing was due to the considerable relief of the tuck-stitch mesh. Additionally, the claimed elastic threads interacted in such a way. The skilled person would have no problem in identifying the necessary relief, design of undulations or interaction of the elastic threads in order to arrive at the desired effect.

The late-filed first auxiliary request should be admitted as the wording of its claim 1 was based on the wording of the first auxiliary request, which was filed

simultaneously with the appeal. In an attempt to overcome the objections relating to Article 123(2) EPC raised in the annex to the summons to oral proceedings, the term "herein adopted mesh" had been replaced by the original term "tuck-stitch mesh".

The subject-matter of claim 1 had been further limited with respect to the mesh structure to the specific number of "four" needles which are kept simultaneously fed with thread and to another needle which holds the mesh being formed for exactly "four" turns, in order to identify the highly raised mesh of the tuck-stitch without any ambiguity (Article 84 EPC).

The additional wording of claim 1 was based upon paragraph [0015] of the patent, which wording was identical to that in the paragraph bridging pages 4 and 5 in the application as filed, and thus the requirements of Article 123(2) EPC were met. This paragraph referred to "generally four" needles which are kept simultaneously fed with thread and to the "usual" number of "four" turns where another needle holds the mesh. The choice of these preferred numbers as the specific numbers in the claim was supported by this paragraph and a clear reference to what should be understood by the obtaining of a mesh which was "considerably in relief". The mesh so obtained also had the required continuous undulations formed by tuck stitches. Hence, the requirements of Article 84 EPC were also met. The resulting mesh also generated the desired adequate compression in order to arrive at the desired massaging effect. Therefore, the subject-matter of claim 1 was limited to a specific highly raised mesh

and the objections referring to insufficient disclosure over the whole breadth of the claim were met.

VII. The respondents essentially argued as follows:

With respect to the manufacturing of the mesh for the claimed girdle, the patent in suit referred to conventional automatic circular hosiery knitting machines. Double cylinder knitting machines were the only suitable knitting machines for producing the claimed tuck-stitch meshes having undulations which are alternated on both sides of the mesh. However, no clear and unambiguous disclosure was derivable that these specific machines should be considered as "conventional" automatic circular hosiery knitting machines.

The skilled person would find no indication in the patent in suit as to how to obtain alternating undulations which were "considerably in relief with respect to the plain mesh" as required by claim 1. There was no information available in the patent in suit as to how to obtain the undulations other than by applying conventional tuck-stitches. Moreover, tuck-stitch meshes produced only certain kinds of relief, of limited height.

The feature claimed in claim 1, namely "such as to generate an adequate compression and thus a massaging and tonic action", specified an effect on the body of the wearer during wearing. Such interaction of the mesh structure with the body of the wearer could only be obtained with an appropriate design of the tuck-stitch mesh, which depended on the number and characteristics

of the yarns and particularly of the elastic threads, including their tension characteristics and feeding tension during manufacturing. However, even if all this information was available, the interaction depended further on the user's body (size and figure) as well as on the manner of application. No disclosure in this respect was present, and accordingly sufficient information to achieve the claimed effect was lacking.

The late-filed first auxiliary request should not be admitted into the proceedings because it only overcame the objection under Article 123(2) EPC with regard to the replacement of the term "tuck-stitch". It failed to overcome further objections concerning Articles 123, 84 and 83 EPC.

Although the additional wording of claim 1 of the first auxiliary request was based upon the wording of paragraph [0015] of the patent, it represented a specific selection from this wording which was not disclosed as such (Article 123(2) EPC).

Furthermore, the subject-matter of claim 1 was not clear, as the exact arrangement of the needles in a double cylinder knitting machine (Article 84 EPC) was missing with the result that the desired tuck-stitch mesh with a highly raised mesh could not be obtained.

Nor were the objections under Article 83 EPC overcome as it was not unambiguously derivable how the feature concerning the "adequate compression" and the massaging effect should be obtained.

Technical textbooks indicated the availability of either two or three feeding stations in double cylinder knitting machines - consistent with the teaching of D3, which referred to only two feeding stations - and at the very least it was not clear where and how the four feeding station should be placed. No evidence had been produced establishing that double cylinder knitting machines having four feeding stations existed at all at the priority date (Article 83 EPC).

Therefore, the appeal should be dismissed.

Reasons for the Decision

1. The appeal is admissible.

2. *Main Request - Sufficiency of disclosure*

2.1 The decision of the opposition division relied on the fact that "double cylinder" knitting machines were not disclosed in the patent in suit and thus were not directly and unambiguously derivable from the patent specification (appealed decision, page 7, second paragraph). This was despite the fact that the presence of a tuck-stitch mesh was found to be the only compatible interpretation of the mesh structure achieved according to the process referred to in paragraph [0015] of the patent in suit. Such a tuck-stitch mesh having alternating undulations was only obtainable via a double cylinder knitting machine.

2.1.1 "Double cylinder" knitting machines are not specifically mentioned in the patent in suit, the only

reference being to "conventional automatic circular hosiery knitting machines". Nevertheless, all parties were agreed that only double cylinder knitting machines, which were in themselves well known, were capable of the manufacture of such double-sided relief with tuck-stitches.

2.1.2 Therefore, the Board is of the view that the skilled person, being aware of the extended possibilities of the double cylinder knitting machines as regards the knitting of tuck-stitches on both sides of the fabric, would obviously consider such a state of the art machine to be a suitable means for knitting the alternating undulations of claim 1 of the patent in suit.

2.1.3 This view is further supported by the fact that D3-I, the prior art document describing a double cylinder knitting machine, indicates that alternating undulations can be obtained by double cylinder knitting machines when applying tuck-stitch loops. D3-I was published on 11 April 1985 and refers in the background of the invention to the fact that "the panty hoses are up to now produced on double cylinder circular small diameter knitting machines ...". Accordingly, panty hoses had been knitted on such machines before the priority date of the patent in suit. In such case, the Board considers such double cylinder machines to have formed part of the general common knowledge of the skilled person responsible for the production of panty hoses, which is also the subject of the patent in suit, and as having formed part of the "conventional automatic circular hosiery knitting machines" specified in the description of the patent in suit.

2.1.4 Accordingly, the Board cannot agree with the finding of the opposition division that the lack of the specific disclosure of a suitable knitting machine would lead to a situation where the skilled person would not be capable of choosing the correct knitting machine for obtaining the tuck-stitch mesh with alternated undulations.

2.2 The decision of the opposition division was further based on the fact that a surface structure produced by tuck-stitches would generally not be adequate to generate the claimed adequate compression and massaging and tonic action in the regions of the body contained in the girdle (appealed decision, paragraph bridging pages 6/7).

2.2.1 In this respect, the description of the patent in suit (paragraph [0022]) discloses that the girdle shall have "a tuck-stitch mesh which can give the fabric a considerable relief with alternating undulations, with the advantage of allowing while wearing the pantyhose and during movements of the pelvis, to produce rubbing of the raised undulated regions against the skin, thus generating localized micromassages and accordingly providing beneficial, tonic and relaxing effects".

2.2.2 The issue is therefore whether the skilled person can derive clearly and unambiguously from the patent specification the necessary instructions to arrive at a girdle having a tuck-stitch mesh which provides such an adequate compression and thus a "massaging and tonic action" in the regions of the body contained in the girdle.

2.2.3 According to claim 1, the generation of an adequate compression and thus a massaging and tonic action in the regions of the body contained in the girdle requires a tuck-stitch mesh having alternating undulations which are considerably in relief with respect to the plain mesh. There is no disclosure in the patent in suit how exactly the expression "considerably in relief" is to be understood in the context of generating the desired massaging action.

2.2.4 The appellant's view was that such a relief could be obtained by tuck-stitch meshes which had been created by applying the method disclosed in paragraph [0015]. The wording of paragraph [0015] includes some general process steps which are applicable to single or double cylinder knitting machines. However, no method step can be identified which goes beyond the commonly known process steps and which would provide anything additional to the usual technical application of a conventional knitting machine or lead to a design which could be considered as surprising. Tuck-stitch meshes of higher or lower relief can be obtained by altering the number of turns during which the needle is held and fed before the needle receives the command to perform the so-called "drop" order, irrespective of whether a single or double cylinder knitting machine is used. The form of relief of the undulations is not further specified. No indications with respect to the claimed elastic threads (number, design, tensioning) are given.

2.2.5 Therefore, based on the information given in paragraph [0015], the skilled reader would not be capable of identifying the necessary steps for obtaining a tuck-

stitch mesh being "considerably in relief with respect to the plain mesh". As the feature relating to "considerably in relief" is linked to the feature relating to the massaging and compression effect which is required in order to obtain the desired result, and as these features are presented as the crucial issue of the inventive concept of the patent in suit, specific information about these features is needed. The patent in suit does not contain a single example of the manufacture of such a mesh/girdle. In particular, with regard to the tuck-stitch mesh, further details are lacking concerning specifically the action of the stretch threads (tensioning characteristics overall and during manufacturing, kind and number of threads in relation to the undulation design), the design of the pattern, the number and further characteristics of yarns and their relation to the elastic yarn. As these relevant details concerning the mesh and its production method are not disclosed, it is not possible to reproduce the mesh and the girdle without inventive effort over and above the ordinary skills of a practitioner (Article 83 EPC).

2.3 It follows from the points above that the Board comes to the conclusion that there is no disclosure in the patent in suit how to generate a tuck-stitch mesh which is considerably in relief such as to generate an adequate compression and thus a massaging and tonic action in the regions of the body contained in the girdle. For this reason, the main request cannot be allowed.

3. *First auxiliary request*

3.1 Amendments

The additional wording of claim 1 is based upon the wording in paragraph [0015] of the patent in suit, which wording is identical to the paragraph on page 4 bridging to page 5 of the application as filed.

The additional wording of the claim is altered with respect to these paragraphs in that the needles which are to be kept simultaneously fed with thread are limited in the claim to four needles whereas according to the cited paragraph the needles are "generally four". Furthermore, the number of turns during which another needle holds the mesh which is formed is specified in the claim to be four turns whereas in the cited paragraphs it is stated that the mesh is formed "for a certain number of turns, usually four".

This request furthermore reinserts into claim 1 the term "tuck-stitch mesh" with the intention of overcoming the objection under Article 123(2) EPC pointed out in the communication accompanying the summons to oral proceedings.

3.2 Admissibility

According to Article 10b(1) RPBA any amendment to a party's case after it has filed its grounds of appeal or reply may be admitted and considered at the Board's discretion.

The amendments made in the first auxiliary request represent a serious attempt to overcome in particular the objection under Article 83 EPC with respect to the main request set out above and the Board sees no reason to not allow this request into the appeal proceedings.

3.3 Article 84 EPC

As set out under point 3.1 above, the additional wording of the subject-matter of claim 1 is based upon the wording in paragraph [0015] of the patent in suit, which concerns the manufacture of the mesh structure. This paragraph contains the only disclosure concerning the manufacture of the mesh structure and refers to conventional automatic circular hosiery knitting machines in general and thus it is questionable whether the disclosed method steps apply specifically to double cylinder knitting machines.

Furthermore, there is no disclosure indicating specifically:

- how to arrange the four feeding stations in a double cylinder knitting machine;
- how to arrive at the plain background mesh, in particular in combination with the undulations on both sides of the mesh;
- where to arrange the group(s) of two needles and
- how the "another needle" is related thereto;
- the particular arrangements to be considered for single or double cylinder knitting machines;
- under what tension to feed the elastic threads;
- what suitably preset patterns would be appropriate.

The appellant argued that the skilled person would find the information sufficient because he would have no difficulties in arranging four feeding stations and in arranging the needles in successive groups of 3 needles so as to obtain a fabric with the claimed properties. However, the Board does not consider this argument convincing. Not only is the available prior art concerning double cylinder knitting machines restricted to two feeding stations, but also no information whatsoever is available about the arrangement of the "another needle" or the further conditions for arriving at the claimed fabric.

Hence, the Board comes to the conclusion that the subject-matter of claim 1 of this request is not clear and the requirements of Article 84 EPC are not met.

3.4 Accordingly, it is not necessary to evaluate whether the subject-matter of claim 1 meets the requirements of Articles 123 or 83 EPC.

4. Thus, the main request of the patent in suit does not comply with the requirements of Article 83 EPC and the subject-matter of claim 1 of the first auxiliary request does not meet the requirements of Article 84 EPC. Therefore, none of the requests of the Appellant is allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar | The Chairman

M. Patin | P. Alting van Geusau