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Datasheet for the decision of 22 October 2009

Case Number: T 0374/08 - 3.2.04

Application Number: 98911367.5

Publication Number: 0966213

IPC: A43B 5/00

Language of the proceedings: EN

Title of invention:
Sports shoe cleats

Patentee:
GreenKeepers of Delaware, LLC

Opponent:
Pride Manufacturing Company, LLC

Headword:
-

Relevant legal provisions:
EPC Art. 56

Relevant legal provisions (EPC 1973):
-

Keyword:
"Inventive step (main and auxiliary request): no"
"Claim interpretation"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0374/08 - 3.2.04

D E C I S I O N
of the Technical Board of Appeal 3.2.04
of 22 October 2009

Appellant: (Opponent)
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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted 14 December 2007 rejecting the opposition filed against European patent No. 0966213 pursuant to Article 102(2) EPC.**

Composition of the Board:

Chairman: M. Ceyte
Members: A. de Vries
C. Heath

Summary of Facts and Submissions

I. The Appellant (Opponent) lodged an appeal, received 13 February 2008, against the decision of the Opposition Division posted 14 December 2007 to reject the opposition against European Patent No. 0 966 213, and simultaneously paid the appeal fee. The statement setting out the grounds was received 14 April 2008.

II. The opposition was filed against the patent as a whole and on the basis of Article 100(a) in combination with Articles 54 and 56, for lack of novelty and inventive step.

The Opposition Division held that the grounds mentioned did not prejudice the maintenance of the patent as granted having regard in particular to the following document:

D6: EP-A1-0 524 861

III. With a further submission of 22 September 2009 the Appellant filed declarations D12 and D13 (made on behalf of the Respondent in a civil action before a US district court) as evidence of prejudicial prior use.

IV. Oral proceedings were duly held before this Board on 22 October 2009.

V. The Appellant (Opponent) requests that the decision under appeal be set aside and the patent be revoked in its entirety.

The Respondent (Proprietor) requests that the appeal be dismissed, or, in the alternative, that the patent be maintained in amended form according to the auxiliary request filed during the oral proceedings before the Board.

VI. The wording of claim 1 of the requests is as follows:

Main request (patent as granted):

"A golf shoe cleat comprising a body member (11) having an outer face (12), an inner face, shoe mounting member (17) projecting outwardly from said inner face and adapted to secure said cleat in a receptacle in a golf shoe, the centre of said shoe mounting member having an axis AL, characterized by a plurality of shaped traction teeth (15-1, 15-2...15-N) projecting around the perimeter of said outer face, each traction tooth having an outward angulation ALT relative to said axis AL to provide lateral stability and enhanced traction through the plane of a golf swing."

Auxiliary Request

Claim 1 is as in the main request but for the following amendment of the characterizing part (emphasis added by the Board to indicate what has changed):
"characterized by a plurality of shaped *outwardly angulated* traction teeth ...."

VII. Regarding inventive step the Appellant argued as follows:

In application of Article 69, the unclear term "outward angulation" is to be understood in the light of the description, in particular column 3, lines 45 to 48 and figures. It is defined as an axis ALT being angled relative to the central axis AT of the cleat. The axis ALT passes through the apex of a tooth and the approximate centre of its base.

If "outward angulation" is to mean that the apex of the tooth leans out beyond its base, this represents the only difference over D6. The only recognizable effects are increasing the contact surface of the tooth with the ground – and so improving its grip - while reducing its height. The problem is formulated accordingly as modifying the cleat to provide these benefits. D6 itself already suggests shifting the apex outwards and increasing contact surface while reducing height. The skilled person has no mental barrier in shifting the apex beyond vertical. The effects are still the same, so that it is a mere design choice. The broad functional statement at the end of claim 1 makes no difference. It applies equally well to D6 and does not imply any "hooking and barbing", an effect not disclosed in the patent.

Specifying that the teeth are outwardly angled as in the auxiliary request makes no difference. The claim remains unclear and must still be read in the light of the description. This establishes an unbreakable link between angle and axes and the claim must be so interpreted. The analysis with regard to D6 remains the same.

VIII. The Respondent argued as follows:

Claim 1 is fully clear when read in the light of the whole contents. The term "teeth" must be understood in the light of the stated purpose and function of providing traction as being hard structures the provide a biting or penetrating action. The figures show the teeth *as a whole* leaning outwardly from the base, with their front surface at an angle with respect to the vertical. This is how the skilled person, who in this field has basic skills, will understand "outwardly angulated". This corresponds for example to a dentist’s understanding of outwardly angled teeth. The passage in column 3 referring to the axes relates to a secondary definition in a specific embodiment.

D6 evidently does not show such outward leaning. The apex of each peak is always located above its base. There is no suggestion in D6 to shift it out beyond the base. This results in barbing and hooking, i.e. an entangling action of the teeth in the turf. Though not disclosed in so many words, this is implicit in the final functional statement of the claim. That function is not realized in D6.

This difference is further clarified in claim 1 of the auxiliary request by specifying that the teeth themselves are outwardly angulated.

Reasons for the Decision

1. The appeal is admissible.

2. *The Invention & Claim Interpretation*

2.1 The claimed invention concerns a golf shoe cleat with a body member which mounts on to the sole via a member projecting from its inner face, and which bears "*traction teeth*" projecting around the perimeter of its outer face. In the wording of granted claim 1 they project at "*an outward angulation ALT relative to [an] axis AL*" at the centre of the mounting member. According to the final lines of the claim this feature provides "lateral stability and enhanced traction through the plane of a golf swing".

2.2 The terms indicated above in italics do not represent standard usage in the field and require interpretative effort on the part of the skilled person when striving to make technical sense of the claim's wording.

2.2.1 As regards the term "traction teeth" the Board accepts that the skilled person, using his normal reading skills, that is by giving terms their normal contextual meaning, infers from the stated aim of providing lateral stability and enhancing traction that such teeth must have appropriate *structural* properties. They are thus teeth both in form and purpose and must be relatively solid.

2.2.2 As for the formulation involving "angulation", this term is defined in the Oxford English Dictionary (OED) as "*angular or cornered formation, or position".* This

definition, however, does not sit well with the further indication that the angulation is *relative to the central axis* AL: the Board is at pains to understand how teeth can have an angular or cornered formation or position relative to an axis. Normal reading skills thus fail to provide a full understanding of this formulation and, invoking Article 69(1) EPC, the description and figures are called upon for assistance.

Various passages describe the teeth as protruding "*at an outward angle*" (column 1, line 58, to column 2, line 1); as "*outwardly angled*" (column 2, lines 13 and 14) or *"angled outwardly"* (column 3, line 41). These various formulations can be fairly well understood, certainly at first glance and in reference to the figures: the teeth are *oriented at an angle* (using the definition of "to angle" given in the OED) *outward*, i.e. *away from the axis AL*. In the case of teeth of relatively simple shape with parallel sides (such as familiar in dentistry) outward angling can be easily visualized as the front and rear surfaces leaning outwardly resulting in an overhang at the front.

For more complex shapes, the situation is not so clear cut, as the tooth's orientation is no longer along or parallel to its outer surfaces. For example, a tooth having a pseudo pyramid shape, such as that described in column 3, lines 38 to 39, or claim 3, can be best said to be oriented along an axis of symmetry or its geometrical axis: this corresponds approximately to the direction in which it points. The patent itself appears to confirm this view. Column 3, lines 45 to 48 measures "outward angulation" in terms of the angle between the *axial line ALT* of each tooth and the central AL. This

axial line ALT, which serves as an axis of orientation for determining the outward angle, is shown in figures 2 and 6 as passing roughly through the apex and centre of the base. Depending on the angle between the front face and such an inner orientation axis outward angling of the tooth need not entail any overhang of its front, outer surface.

It is true that in figure 2 (and 6) the outer curved surface of each outwardly angled tooth is shown as leaning outwardly, with its apex overhanging the base. However, this is specific to a preferred embodiment shown where axes ALT and AL are at an angle of 37½°, see the corresponding text, column 3, lines 45 to 48. Nowhere does the patent expressly identify that such an overhang is a general, definitive feature of the invention. The main focus of figure 2 (and 6) and text is on the angular relation between the two axes ALT and AL. The text moreover clearly links the concept of outward angulation to the angle between the two axes ("this outward angulation is at an angle ... measured from axial line AL ... to the axial line ALT of each tooth"). The 37½°, naturally, figures as a preferred value, of secondary significance only. Nevertheless, the passage also offers the only express information as to how the skilled person might determine the degree or measure of "outward angulation".

From the above the Board concludes that the claimed feature pertaining to outward angulation is to be understood as meaning nothing more than that *each tooth is oriented*, i.e. *has an axis of orientation, at an angle away from the central axis*.

3. *Inventive Step*

3.1 D6, see for example figures 1 and 6 to 8, in conjunction with the abstract, indisputably discloses a cleat for a golf shoe ("crampon pour ... chaussure de golf") which has a body member ("disque 1") with traction teeth ("picots 3") projecting from its outer surface and at the perimeter, and which attaches to the shoe via a mating member ("tige 2 filetée de fixation) protruding from the body member's inner surface.

D6 does not provide any explicit information as to the particular orientation of the "picots" 3. Their form and function are described in greater detail in column 3, lines 29 to 46. They are of irregular polyhedral shape with inner surfaces 6A-6B that are larger than an outer face 6, so that the apex is shifted outwardly ("faces internes 6A-6B ... sont plus importantes que la face exterieure 6";"les sommets 5 ... sont décalés vers l'extérieur"), as illustrated in figure 2. However, this description alone is insufficient to determine the tooth's orientation, as this depends not only on the relative position of its apex but also on the point of intersection of the tooth's inner orientation axis with its base. An attempt could me made to infer such information from figures 1 or 2. Bearing in mind that these top and side views are schematic, and are thus by their very nature not intended to provide exact dimensions, such an attempt must at best yield tentative results, and will not conclusively demonstrate any particular orientation. For example, for the polyhedral shaped tooth the orientation axis may be taken to pass through the geometrical centre (centroid or centre of mass) of its

tetragonal base (see above). As the base is irregular this point is *not* simply located midway on the diagonal connecting the outer to the inner point, but rather at some point further outward. Its exact location depends on the exact dimensions of the base, but these are not derivable from the figures.

D6 therefore does not allow of any conclusive statement regarding the orientation of the teeth 3. Consequently, it does not directly and unambiguously disclose that the teeth have an outward angulation as understood in the sense given in section 2.2.2 above. This feature represents the sole difference of the claimed cleat over D6, rendering it novel.

3.2 As explained in column 2, lines 11 to 15, of the patent specification the "outward angled traction teeth around the perimeter ... [provide] lateral stability and traction through the plane of a golf swing". Additionally, see immediately following lines 16 to 17, the outwardly angled teeth are "low in profile to reduce damage to putting green surfaces".

3.2.1 The general aim of cleats is to provide increased traction and stability. This is also explicitly acknowledged in D6, where it refers to good stability (column 1, lines 34 to 35: "bonne stabilité"), and improved grip (column 1, lines 44 to 48 : "meilleure adhérence"). In D6 these improved properties are in particular linked to an increased surface contact of its arrangement of polyhedral teeth (column 3, lines 36 to 38 "Cette disposition des picots en forme de polyèdres espacés présente l'avantage d'accroître la surface de contact du crampon avec le sol").

In the same manner as the patent, D6 arranges multiple "picots" around the cleat perimeter to provide traction and stability throughout the plane of a golf swing.

Finally, D6 also explicitly mentions height reduction of the teeth as a result of the increased surface contact (column 3, lines 43 to 46: "En raison de l'accroissement des surfaces de contact, il est possible de réaliser des picots de hauteur inférieure"). This lower tooth profile is expressly linked with reduced damage to the putting surface (column 4, lines 20 to 25: "la hauteur ... évite les arrachements de matière").

3.2.2 The only recognizable effect of the outward angulation of the teeth is the *degree* of the resultant effects. The objective technical problem is formulated accordingly as *further* improving traction and stability through the swing plane while reducing damage to the putting surface.

3.2.3 At this junction the Board adds that the asserted effect of "barbing and hooking" is nowhere mentioned in the patent. Nor does the Board consider such an effect is intimated by the required "lateral stability and enhanced traction through the plane of a golf swing". This is the broad aim of any golf shoe cleat, unspecific to the particular underlying effects that might achieve the aim. Moreover, the Respondent associates the effect only in connection with front overhang of the teeth. As set out above, the claim reads in a broader sense, which does not necessarily

imply an overhang and the effect is thus not present in all embodiments covered.

3.3 As noted, D6 is silent about any particular orientation of the teeth. Its teaching is concerned rather with increasing the surface contact between cleat and ground which it achieves amongst others by shifting the apex of the teeth away from the cleat centre, see in particular column 3, lines 34 to 38 cited previously, which provide the desired grip and stability while reducing tooth height, column 3, lines 43 to 46. It is immediately apparent to the skilled person that the amount of contact surface is linked to the degree of outward shift of the apex: the further outward the apex, the greater the contact surface of the teeth, and the lower their profile may be. In order therefore to increase the associated effects the skilled person will therefore as a matter of obviousness shift the apex ever further out. Inevitably he will arrive at teeth that are oriented outwardly, that is with "outward angulation" as understood by the Board. He arrives at the subject-matter of claim 1 (main request) in an obvious manner by consistent and logical application of D6's teaching - effectively extrapolating its teaching - to an area of apex shift not explicitly mentioned in D6. He does so in expectation of an increase of the effects already recognized in D6. It is this expectation that leads the Board to conclude that the skilled person *would,* rather than could, arrive at the claimed invention without inventive skill.

3.4 Stating that the plurality of shaped traction teeth are *outwardly angulated* (claim 1 of the auxiliary request) merely repeats in alternative wording the requirement

of "outward angulation" already in the claim. It does not change the Board's understanding of the teeth's general shape, see above. Consequently, the subject-matter of claim 1 of the auxiliary request lacks inventive step for the same reasons as given for the main request.

3.5 Finally, D6 does not intimate any limit to the extent of outward shifting of the apex. In particular the Board is unable to find any indication, explicit or otherwise, in D6, that the apex should *not* overhang the base and that the front tooth face should not go beyond vertical. There is thus no bar in D6 for the skilled person to further extend (or extrapolate) its teaching into this region, as a matter of course. Even if claim 1 had been interpreted as implying such an overhang, or were to be amended to state this, the Board would have reached the same conclusion.

3.6 The Board concludes that the subject-matter of claim 1 according to the main request or the auxiliary request does not involve an inventive step. This ground of opposition thus prejudices maintenance of the patent as granted or in amended form.

4. *Admissibility of amendments to party's case*

Using the discretion afforded it under Article 13(1) of the Rules of Procedure of the Boards of Appeal, the Board has admitted into the procedure evidence D12 and D13 submitted by the Appellant with letter of 22 September 2009, as well as the auxiliary request filed by the Respondent at the oral proceedings before the Board. While the auxiliary request has fallen on

its merit, D12 and D13 have played no role in the Board's finding of non-allowability of the two requests (which is based only on D6). Neither decision on admissibility is therefore relevant to the ultimate outcome of the appeal, and they thus behove no further comment.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar The Chairman

G. Magouliotis M. Ceyte