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(71) Applicant and

(72) Inventor: CONNEALLY, Christopher, Paul [GB/GB];
147 Kinveachy Gardens, Charlton, London SE7 8EQ (GB).

(74) Agent: EGERTON, Malcolm, Henry; 40 Merchland
Road, New Eltham, London SE9 2BH (GB).

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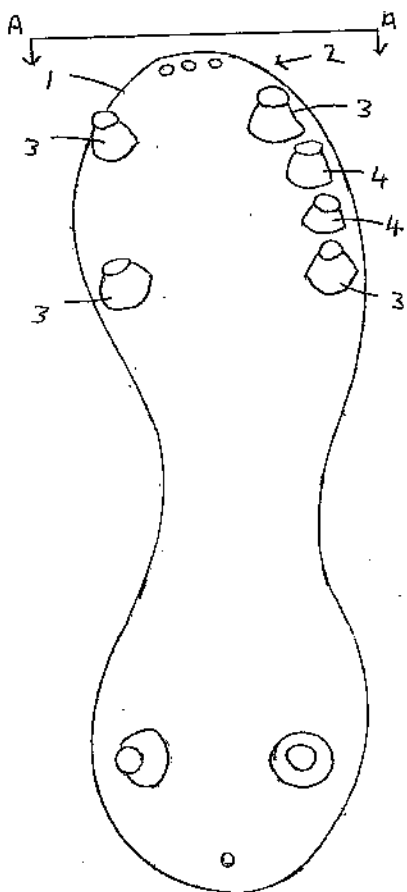
— as to the identity of the inventor (Rule 4.17(i))

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[Continued on next page]

(54) Title: AN ARTICLE OF FOOTWEAR



(57) Abstract: An article of footwear, such as a boot (2) worn by a football
goalkeeper, has studs (3, 4) on the sole (1), wherein there are more studs (4)
on the outer region of the sole (1) than on the inner region of the article of
footwear.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

AN ARTICLE OF FOOTWEAR

5 The present invention relates to an article of footwear and particularly but not exclusively to sports boots such as football boots.

Goalkeepers conventionally wear boots with an arrangement of studs which are the same as those on the boots of other players. Traditionally, these boots
10 have six studs spaced around the boot with two longer studs on the heel and four shorter studs on the sole. By the nature of goalkeeping, the goalkeeper often has to leap sideways to cover the entire goalmouth. The conventional arrangement of studs may not provide sufficient traction to enable the goalkeeper to achieve this.

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It is, *inter alia*, an aim of the present invention to improve traction between the wearer and the ground when the wearer is moving sideways and to that end there is provided according to the present invention an article of footwear comprising an underside having raised portions for engaging the
20 ground, wherein there are more raised portions on the outer region of the underside than on the inner region of the article of footwear.

The article of footwear may comprise a sports boot or shoe and the raised portions may comprise studs fixed to the underside of the article of footwear.

The article of footwear may comprise six studs spaced around the underside
5 and at least one further stud located on the outer region of the article of footwear.

The article of footwear may comprise two such further studs located on the outer region of the article of footwear.

10

The or at least one of the further studs may extend a shorter, greater or the same distance from the underside of the article of footwear than the other studs.

15 The or each further stud may extend from the underside of the article of footwear at an angle to the other studs.

At least some of the studs may be removable.

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The raised portions may comprise spikes fixed to the underside of the article of footwear.

An embodiment of the present invention will now be described by way of
5 example and with reference to the accompanying drawings in which:-

Figure 1 shows part of the underside of a left football boot according to the present invention,

10 Figure 2 shows a pair of football boots according to the present invention

Figure 3 shows an enlarged view of part of a right football boot illustrating the location of the further studs,

Figure 4 shows a side view of the boot illustrated in Figure 3,

15 Figure 5 shows a schematic view of the arrangement of the two forward studs of a conventional football boot, and

Figure 6 shows a schematic view of the arrangement of the studs illustrated in figure 5 together with a further stud used in a boot according to the present invention.

Referring to the accompanying drawings, figure 1 shows the sole 1 of a left football boot 2 according to the present invention. The boot has four studs 3 which are the same or similar to those on a conventional boot and two other studs on the heel (not shown). On the outer edge region of the sole 1 are two
5 further studs 4 which are of a similar tapered shape to the studs 3 but slightly shorter. Although not shown in the drawings, the further studs 4 may instead be longer or the same length as the studs 3.

Figure 2 shows a pair of such boots 2 and, as can be seen, there are also two
10 further studs 4 on the outer edge region.

Figure 3 shows an enlarged view of the arrangement of the studs illustrated in figures 1 and 2. The boot 2 is shown at an angle to the ground 6 and when in this position both the conventional studs 3 and the two further studs 4 are
15 in contact with the ground.

Figure 4 shows a side view of the boot illustrated in figure 3, clearly illustrating the two shorter further studs 4 which, when the boot is in its normal position, do not contact the ground.

Figure 5 shows schematically the position of the two forward conventional studs 3 of a conventional boot when viewed along the line A-A in figure 1. When looking along this line only the front two studs 3 are shown. In figure 5, the outer edge of the boot is referred to by reference numeral 5 and, as can
5 be seen, when the boot is inclined outwardly, the outer stud 3 digs into the ground.

Figure 6 shows a similar view to that illustrated in figure 5 but in this case when looking along line A-A in figure 1, the further stud 4, as well as the
10 conventional stud 3, digs into the ground.

The embodiment of the present invention described above is particularly applicable to football goalkeepers because the extra studs at the outer side of each boot enables the ground reaction force, at toe-off in the maximum
15 driving phase, to be increased. The goalkeeper is able to generate a higher force and trajectory and, thus, cover a greater area more quickly. The possible reduction in stud length will also allow the goalkeeper to perform all other goalkeeping movements without hindrance or any negative effects.

Although the embodiment described above has been in respect of boots provided with studs, the present invention is equally applicable to footwear having, for example, spikes.

5 At least some of the studs 3, 4 may be removable in order to replace a broken or worn stud. This can be achieved by providing studs with a number of circumferentially disposed flats for accommodating a spanner or the like. The studs may have a threaded shaft which, with the aid of the spanner or the like, can be screwed to a plate fixed to the inside of the boot.

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Furthermore, the present invention extends to footwear having various sole designs, such as moulded soles and to footwear that can be used on artificial surfaces, for example Astroturf.

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Claims

1. An article of footwear comprising an underside having raised portions for engaging the ground, wherein there are more raised portions on the outer region of the underside than on the inner region of the article of footwear.
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2. An article of footwear according to claim 1, comprising a sports boot or shoe.
3. An article of footwear according to claim 1 or claim 2, wherein the raised portions comprise studs fixed to the underside of the article of footwear.
10
4. An article of footwear according to claim 3, comprising six studs spaced around the underside and at least one further stud located on the outer region of the article of footwear.
5. The article of footwear according to claim 3 or claim 4, comprising two such further studs located on the outer region of the article of footwear.
15
6. An article of footwear according to any one of claims 3 to 5, wherein the or at least one of the further studs extends a shorter, greater or the same distance from the underside of the article of footwear than the other studs.
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7. An article of footwear according to any one of claims 3 to 6, wherein the or each further stud extends from the underside of the article of footwear at an angle to the other studs.

8. An article of footwear according to any one of claims 3 to 7, wherein
5 at least some of the studs are removable.

9. An article of footwear according to any one of the preceding claims, wherein the raised portions comprise spikes.

10. An article of footwear substantially hereinbefore described with
reference to the accompanying drawings

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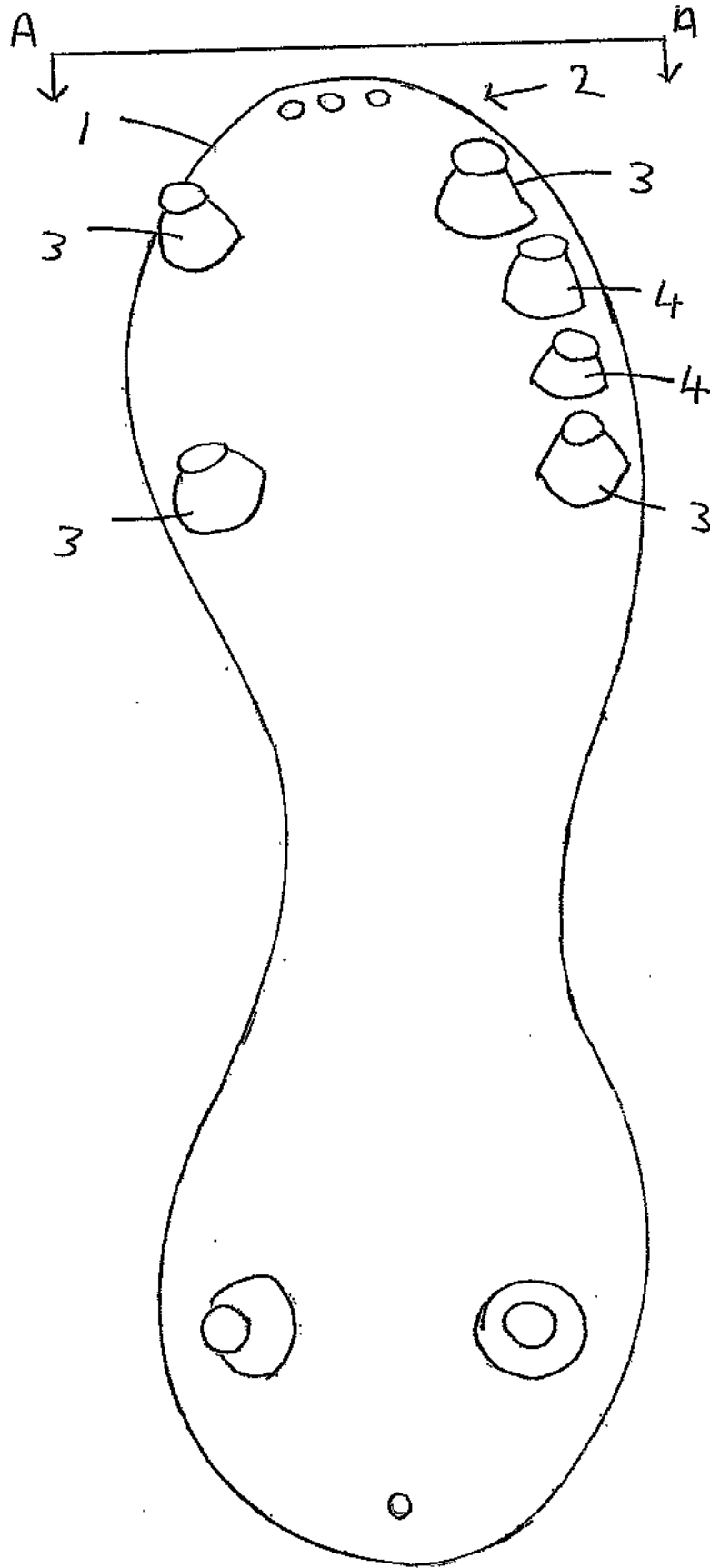


Fig 1

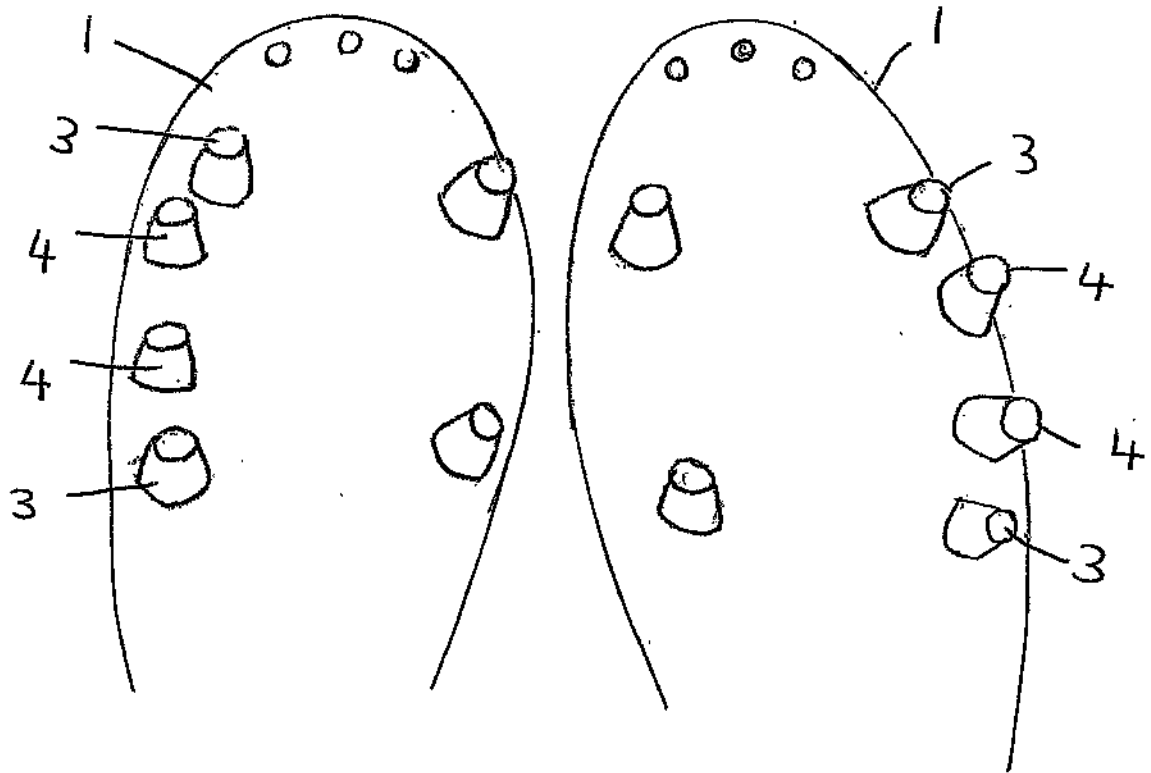


Fig 2

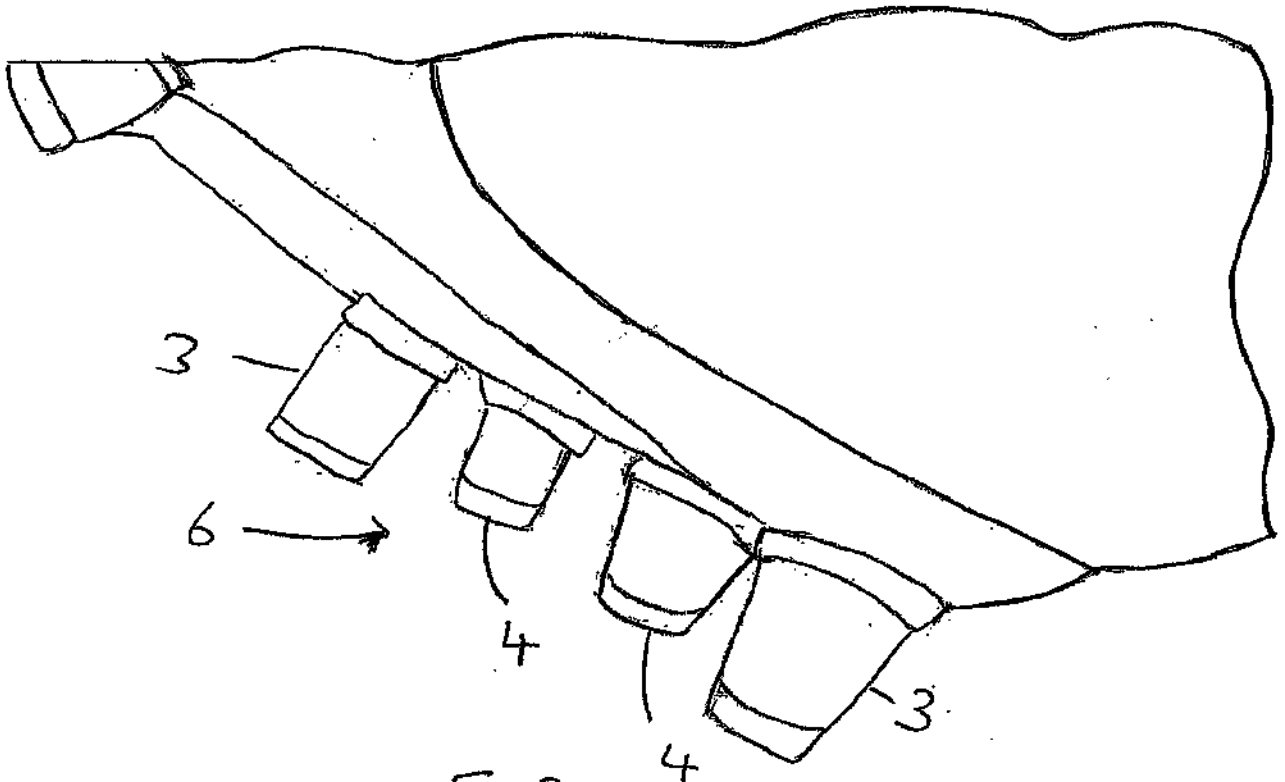
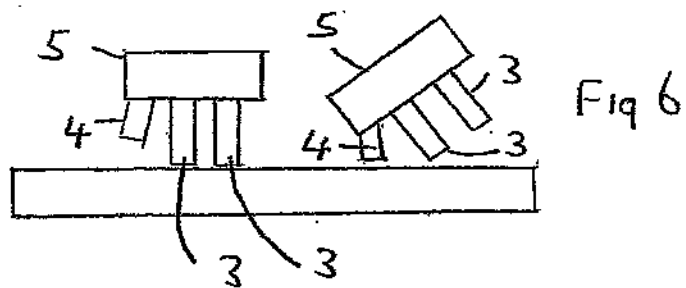
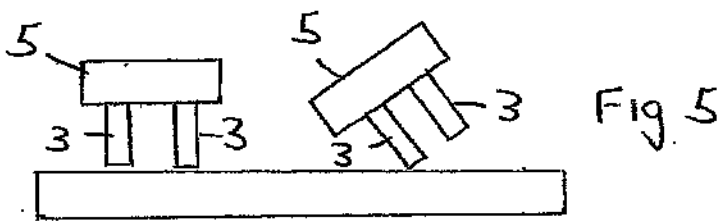
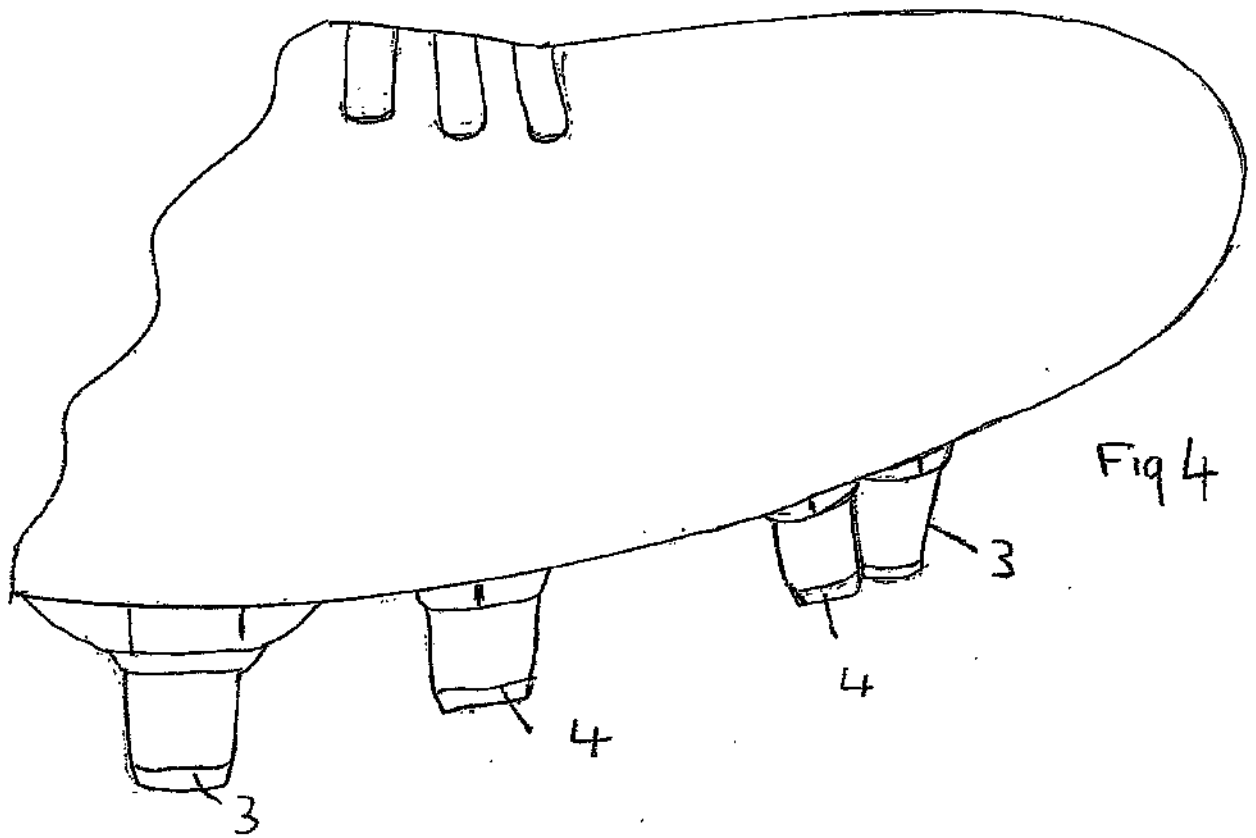


Fig 3



PATENT COOPERATION TREATY

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference CPC/PCT/1	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/GB2006/000983	International filing date (day/month/year) 20/03/2006	(Earliest) Priority Date (day/month/year) 22/03/2005
Applicant CONNELLY, Christopher Paul		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

it is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of:

- the international application in the language in which it was filed
 a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. Certain claims were found unsearchable (See Box No. II)

3. Unity of invention is lacking (see Box No. III)

4. With regard to the title,

- the text is approved as submitted by the applicant
 the text has been established by this Authority to read as follows:

5. With regard to the abstract,

- the text is approved as submitted by the applicant
 the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the drawings,

a. The figure of the drawings to be published with the abstract is Figure No. 1

- as suggested by the applicant
 as selected by this Authority, because the applicant failed to suggest a figure
 as selected by this Authority, because this figure better characterizes the invention

b. none of the figures is to be published with the abstract

INTERNATIONAL SEARCH REPORT

International application No

PCT/GB2006/000983

A. CLASSIFICATION OF SUBJECT MATTER INV. A43B5/02 A43C15/16 A43B13/26		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) A43B A43C		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 44 17 563 A1 (SPORTARTIKELFABRIK KARL UHL GMBH, 72336 BALINGEN, DE) 23 November 1995 (1995-11-23) the whole document	1-10
X	EP 1 234 516 A (MIZUNO CORPORATION) 28 August 2002 (2002-08-28) paragraph [0022] - paragraph [0026] paragraph [0036] - paragraph [0037] figures 1-3	1-6,8-10
X	WO 01/72161 A (MDOHONG ENTERPRISE CO; PARK, CHUN-SUNG) 4 October 2001 (2001-10-04) page 4, line 23 - page 6, line 22; figures 4,5	1-6,8-10
<input type="checkbox"/> Further documents are listed in the continuation of Box C.		<input checked="" type="checkbox"/> See patent family annex.
* Special categories of cited documents:		
A document defining the general state of the art which is not considered to be of particular relevance		*T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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10 May 2006	22/05/2006	
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
DE 4417563	A1	23-11-1995	NONE	
EP 1234516	A	28-08-2002	BR 0200289 A JP 2002248006 A	29-10-2002 03-09-2002
WO 0172161	A	04-10-2001	AU 4477701 A KR 193935 Y1	08-10-2001 16-08-2000