



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
18.06.2014 Bulletin 2014/25

(51) Int Cl.:
A43B 3/10 (2006.01) **A43B 3/24 (2006.01)**
A43B 1/00 (2006.01)

(21) Application number: **13005810.0**

(22) Date of filing: **13.12.2013**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

• **Rico Sánchez, Aarón**
03205 Elche (Alicante) (ES)

(72) Inventors:
• **Sánche Martínez, Rosario**
03205 Elche (Alicante) (ES)
• **Rico Sánchez, Aarón**
03205 Elche (Alicante) (ES)

(30) Priority: **14.12.2012 ES 201201132 U**

(71) Applicants:
• **Sánche Martínez, Rosario**
03205 Elche (Alicante) (ES)

(74) Representative: **Pardo Zapata, José**
Ibidem Consulting
Juan de la Cierva 43, planta 2 local 1.1
03203 Elche (Alicante) (ES)

(54) **Adaptable shoe**

(57) It is described an adaptable shoe or footwear comprising cut pieces made of flexible material joined to

side of the sole of shoe with temporary fixation means. The shoe is suitable for feet with bunions.

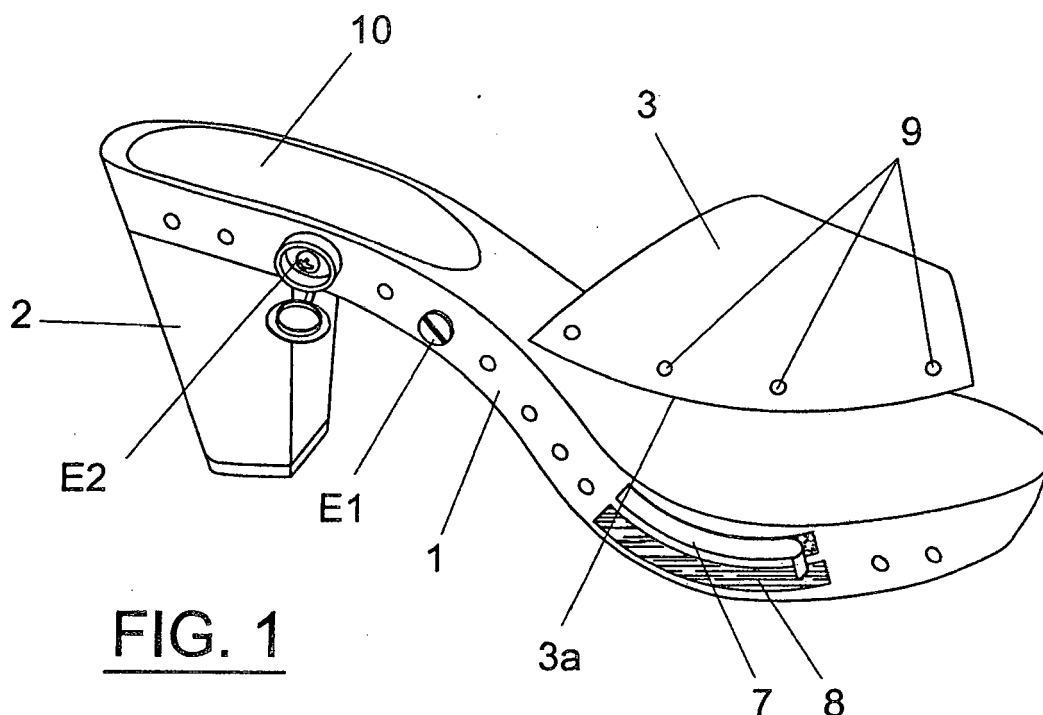


FIG. 1

Description

[0001] This invention describes an adaptable shoe or footwear with cut pieces made of flexible material joined to the side of the sole of the shoe with temporary fixation means.

State of the art

[0002] Shoes are manufactured to permanently join the instep of the shoe to the sole of the shoe. For instance, both elements may be glued or stitched. In general, insteps and soles are joined at the upper part of the sole. In this way, the shoe adapts perfectly to users' feet.

[0003] There are morphological differences in the feet of different users and even between the left and right foot of the same user. In these cases, a shoe that is too tight may cause injuries to users, owing to the morphological irregularities of feet. It is even worse if a user has bunions and/or calluses.

[0004] The state of the art describes different adaptable shoes, for instance, FR2580475 which describes a shoe with changing adjustment. None of them describes shoes appropriate for feet with bunions.

[0005] The state of the art describes different shoes appropriate for feet with bunions or calluses. The technical elements used in them are patches or perforations in the instep of the shoe to avoid contact of the foot with the shoe; but the state of the art does not describe shoes with soles temporarily joined to the instep.

Object of the invention

[0006] This invention provides a solution for feet with bunions and calluses.

[0007] The inventors created a shoe that comprises a sole with a plurality of holes located on the side of the sole and the flexibly cut piece has holes at the ends that are fixed to the sole by means of temporary fixation.

[0008] The means of temporary fixation allow the shoe to adapt to the irregularities of feet, by adapting the cut piece to the foot without pressure, thus creating a dead volume between the foot and the shoe. The means of adjustment on the side of the sole avoid the irregularities of the foot, bunions and calluses. If the instep and sole were joined on the upper part of the sole, it would not be possible to avoid the bunions.

[0009] Furthermore, the dead volumes leave room for patches or gauze to further protect the bunions.

[0010] In a particular mode, the means of temporary fixation are adhesive tape, velcro® tape or rods introduced through the holes of the cut piece and of the sole.

[0011] In the preferred mode, the means of temporary fixation are screws and, also, the holes of the flexible cut piece are elongated. The temporary fixation of the screw is done by hand. The flexible piece is provisionally joined to the sole, the piece is adapted to the shape of the foot and, finally, the permanent fixation of the flexible piece

to the sole is done with a screwdriver. The adjustment of the flexible piece may be done by folding the flexible piece or by moving the cut piece along the elongated hole.

[0012] In another preferred mode, the screw heads are oversized. The screws facilitate the adjustment/dismounting operation.

[0013] Furthermore, the invention describes a kit that includes a shoe and a screwdriver.

Description of the drawings

[0014] Figures 1 and 2 show two perspectives of the shoe.

Detailed description

[0015] The term "flexible" means any material that may be folded.

[0016] The term "temporary fixation" means fixation without using tools, in other words, manually done.

[0017] The term "permanent fixation" means fixation using tools.

[0018] The instep of the shoe or footwear is made of a cut piece (3) manufactured in flexible material with a plurality of holes (9). The sole of the shoe (1) has a plurality of holes (5) on the side. The flexible piece (3) is joined to the sole of the shoe by means of temporary fixation means which will be later permanently fixed.

[0019] The means of temporary fixation are double-sided adhesive strips or velcro® tape (8). The strips are placed inside the flexible piece (3a) and on the side of the sole (3b). The temporary fixation may also be done by using screws or rods (4) introduced in the holes of the sole (5). After fitting the cut piece (3) to the side of the sole temporarily, the cut piece (3) is adjusted to the shape of the foot. The adjustment of the cut piece (3) to the foot is done by folding the cut piece. If the hole (9) has an elongated shape, the adjustment is done by moving the flexible strip (3) along the hole (9).

[0020] The permanent fixation of the shoe is done with screws (4) screwed with a screwdriver or another machine. The permanent fixation with screws is optimised with the use of pegs (6).

[0021] The adjustment of the cut piece (3) creates a dead volume avoiding contact of the shoe with the foot. Furthermore, the dead volume is appropriate for placing gauze to protect bunions.

[0022] The shoe does not touch the bunions and/or calluses and ensures fixation of the foot to the shoe.

[0023] The adjustment screws may be of any kind; in a preferred mode, screws with over-sized heads are used, in other words, the diameter of the screw head is far bigger than the screw rod. Furthermore, the screws have ornamental motifs for aesthetic purposes. Screws that are star-shaped facilitate manual adjustment.

[0024] The shoe may contain insoles (10), heel (2) or other ornamental motifs (E1-E2).

[0025] The shoe is sold in a kit that contains a screw-

driver.

Claims

5

1. Adaptable shoe that comprises:

- A sole (1) with a plurality of holes (5) located on the side,
- A flexible cut piece (3) with a plurality of holes (9), **characterised in that** the cut piece (3) is temporarily fixed to the sole of the footwear. 10

2. Shoe of claim 1 **characterised in that** the means of temporary fixation are velcro® or a double-side adhesive tape. 15

3. Adaptable shoe of claim 1 **characterised in that**:

- the temporary fixation means are screws, 20
- the holes (9) of the flexible cut piece (3) are elongated.

4. Interchangeable shoe of claim 3 **characterised in that** the head of the screws are over-sized. 25

5. Kit that includes:

- A shoe of claims 1, 3 or 4 and
- a screwdriver. 30

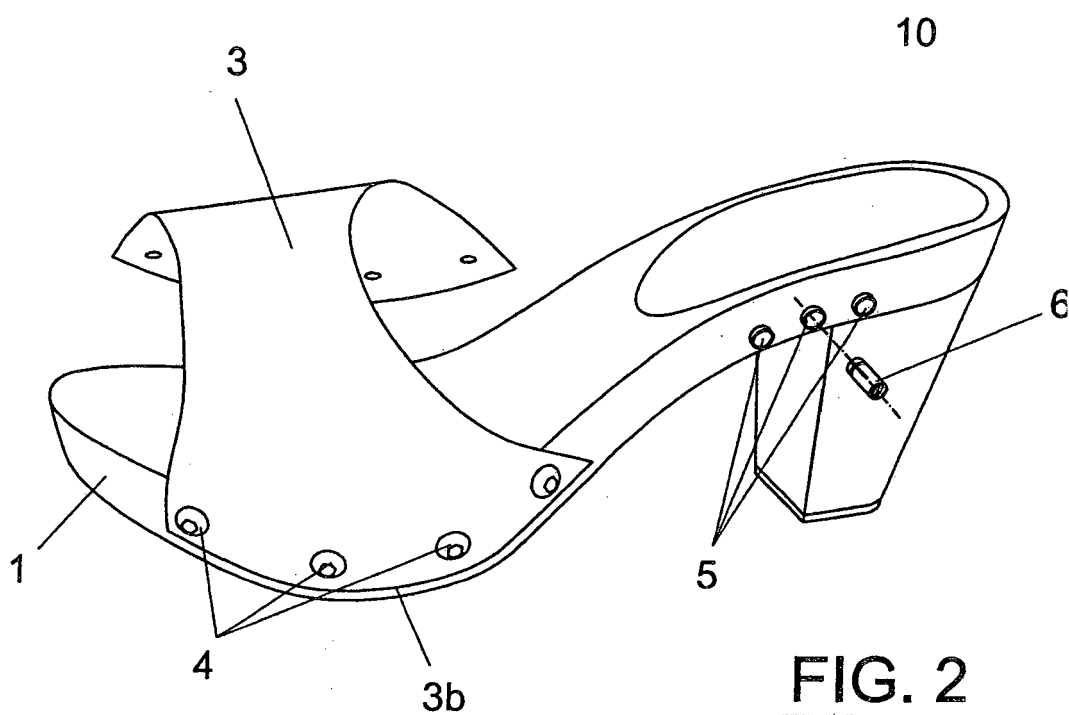
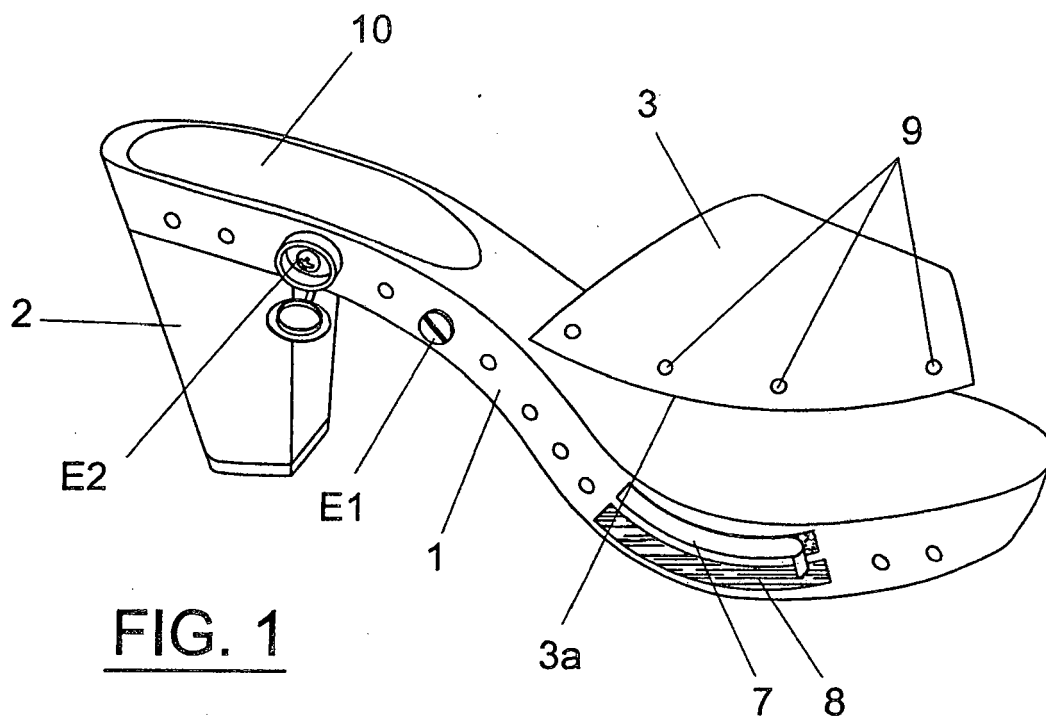
35

40

45

50

55





EUROPEAN SEARCH REPORT

Application Number
EP 13 00 5810

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 2005/009161 A1 (SHELSKY DAVID JACOB [IL]) 3 February 2005 (2005-02-03) * page 1, lines 2,,12,14,21,22; claims 1,2 *	1-5	INV. A43B3/10 A43B3/24 A43B1/00
X	----- DE 84 11 411 U1 (OTTO WOLFGANG FRANCKE) 19 July 1984 (1984-07-19) * claims 1,2,5; figures *	1,3-5	
X	----- US 3 063 457 A (ERNST BITTNER ET AL) 13 November 1962 (1962-11-13) * column 4, line 3 * * column 1, lines 10-65 *	1,3,5	
A	----- DE 20 2004 011744 U1 (KRAUS SARAH LYN [DE]; REICHERT JENNIFER [DE]) 5 January 2006 (2006-01-05) * paragraph [0003]; claim 6 *	1,2	
A	----- US 5 992 058 A (JNEID HUDSON [AU]) 30 November 1999 (1999-11-30) * claim 1 *	2	
			TECHNICAL FIELDS SEARCHED (IPC)
			A43B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 3 March 2014	Examiner Claudé, Benoît
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

1
EPO FORM 1503 03.92 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 13 00 5810

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

03-03-2014

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2005009161 A1	03-02-2005	AU 2003304370 A1 WO 2005009161 A1	14-02-2005 03-02-2005
DE 8411411 U1	19-07-1984	NONE	
US 3063457 A	13-11-1962	CH 376029 A DE 1781491 U GT 197017530 A US 3063457 A	15-03-1964 22-01-1959 19-01-1972 13-11-1962
DE 202004011744 U1	05-01-2006	NONE	
US 5992058 A	30-11-1999	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- FR 2580475 [0004]