



(11)

EP 1 621 090 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
01.02.2006 Bulletin 2006/05

(51) Int Cl.:
A43B 5/14 (2006.01) **A43B 23/26** (2006.01)
A43C 11/14 (2006.01) **A43C 7/00** (2006.01)

(21) Application number: **05106882.3**

(22) Date of filing: **26.07.2005**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI
SK TR**
Designated Extension States:
AL BA HR MK YU

(71) Applicant: **Oxtar SPA**
31044 Montebelluna (IT)

(72) Inventor: **BERGAMIN, Mirco**
31033 CASTELFRANCO VENETO TV (IT)

(74) Representative: **Modiano, Micaela Nadia et al**
Dr. Modiano & Associati S.p.A.
Via Meravigli 16
20123 Milano (IT)

(30) Priority: **26.07.2004 IT TV20040085**

(54) Motorcycling boot with improved fastening

(57) A motorcycling boot (1) with improved fastening, comprising an upper (3) provided with a first flap (5a) and a second flap (5b), which can be fastened together selectively by means of a lace (15) or cable. The upper comprises a tab (17), which is rigidly coupled with a first

end (18) at one of the first or second flaps (5a, 5b), wraps around the tibia and has, proximate to a second end (19), a first element (20) of a zip fastener (21) that can be fastened with a second element (22) of the zip fastener that is coupled laterally to the flap of the first or second flaps of the upper that is not rigidly coupled to the tab.

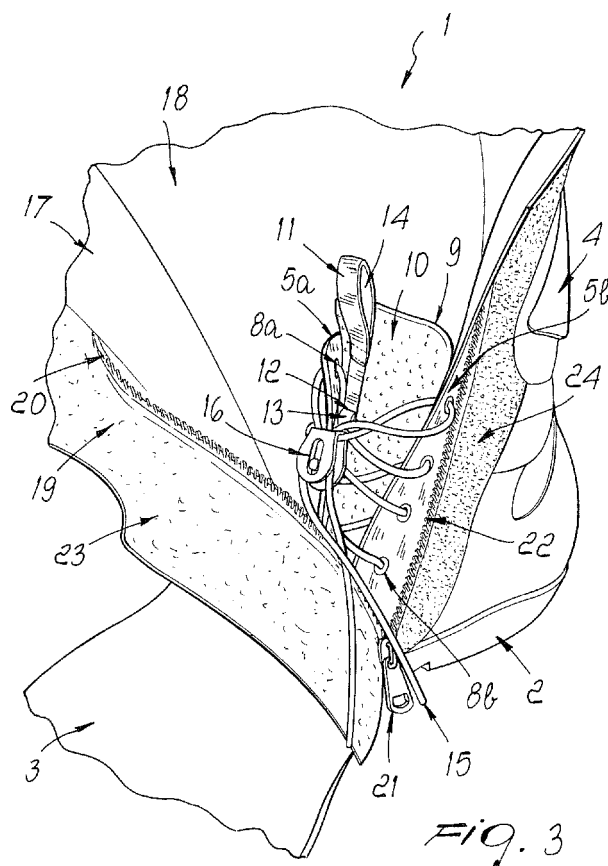


Fig. 3

Description

[0001] The present invention relates to a motorcycling boot with improved fastening.

[0002] Boots are currently used, particularly for driving racing motorcycles, which have a rigid upper, generally made of plastics or, if soft, provided with reinforcements made of plastics or metal in order to ensure high protection of the foot and ankle of the user.

[0003] In some embodiments, these known types of boot have, at the rear and laterally, an articulated structure made of plastics, which provides both protection and guidance in movement to the articulation of the ankle of the user.

[0004] In order to allow the foot of the user to access the inside of the boot, the upper is partially open, typically at the front or laterally, so as to form two flaps that can be mutually separated.

[0005] In order to ensure good aerodynamics of the boot, the fastening system of said flaps generally is not constituted by a closure with laces, since the laces would form obstacles for the stream of air that strikes the surface of the boot during the motion of the motorcycle, thus increasing the action of the braking force of the air on the boot.

[0006] The flaps are instead closed typically by means of a tab rigidly coupled to one of the two flaps, which can be superimposed on the other flap and can be fixed with its free end to the upper, for example by means of a lever or a Velcro closure, thus preventing the foot of the user from escaping from the boot.

[0007] The external surface of the tab is generally smooth or sculpted so as to interfere only to a minimal extent with the stream of the air that strikes it during the motion of the motorcycle.

[0008] The main drawback of these known types of motorcycling boot is that they do not allow adjustment, except for a minimum adjustment, of the degree of fastening of the two flaps; said boots, therefore, cannot adapt in an optimum manner to the foot and ankle of the user and thus risk being too tight, and therefore uncomfortable, or instead leaving considerable play between the upper and the foot and/or ankle, such as to compromise the support that the boot should provide to the foot and/or ankle.

[0009] Motorcycling boots are known which comprise a sort of sock, typically made of an elasticized and sponge-like fabric and generally provided with reinforcements arranged at the ankle and at the sole of the foot, which is initially put on by the user and then introduced in the rigid upper of the boot.

[0010] The sock is generally provided with a rear fastening, which allows to adjust the degree of fastening thereof so as to adapt to the foot and ankle of the user before it is inserted in the rigid upper of the boot.

[0011] In these known types of boot, access of the sock to the inside of the rigid upper and subsequent blocking of its escape are achieved, as in known types of boot

described earlier, by dividing the rigid upper into two flaps that can be mutually fastened by overlapping and blocking, which is generally obtained by means of a lever or a Velcro closure, on one of the two flaps of a tab that is fixed to the other flap.

[0012] The main drawback of these known types of boot is that the plays between the sock and the rigid upper can be such as to compromise the stability of the support that the boot should provide to the foot.

[0013] Further, the operations required to put on or remove such known types of boot, due to the need to put on or remove both the rigid upper and the sock, are awkward and inconvenient and require a rather long time to be performed.

[0014] Another drawback of known types is that they are rather expensive in view of the complexity of their structure.

[0015] The aim of the present invention is to solve the above-mentioned problems, eliminating the drawbacks of the cited background art, by providing a motorcycling boot that allows to provide the foot and the ankle of the user with good support and high safety, at the same time adapting in an optimum manner to the foot and ankle in order to provide very comfortable wear.

[0016] Within this aim, an object of the invention is to provide a motorcycling boot that has good aerodynamic characteristics, in order to offer low resistance to the stream of air that strikes the boot during the motion of the motorcycle.

[0017] Another object is to provide a motorcycling boot that allows the user to wear it, adjust it and remove it very rapidly and easily.

[0018] Another object is to provide a motorcycling boot that is structurally simple and has low manufacturing costs.

[0019] This aim and these and other objects that will become better apparent hereinafter are achieved by a motorcycling boot with improved fastening, characterized in that it comprises an upper provided with a first flap and a second flap, which can be fastened together selectively by means of a lace or cable, said upper comprising a tab, which is rigidly coupled with a first end at one of said first or second flaps, wraps around the tibia and has, proximate to a second end, a first element of a zip fastener that can be fastened with a second element of said zip fastener that is coupled laterally to the flap of said first or second flaps of said upper that is not rigidly coupled to said tab.

[0020] Further characteristics and advantages of the invention will become better apparent from the following detailed description of a particular but not exclusive embodiment thereof, illustrated by way of non-limiting example in the accompanying drawings, wherein:

Figure 1 is a side view of a boot according to the invention in a partially open condition;

Figure 2 is a side view of the boot of Figure 1 in a closed condition;

Figure 3 is a perspective view of a detail of the boot of Figure 1.

[0021] In the embodiments that follow, individual characteristics, given in relation to specific examples, may actually be interchanged with other different characteristics that exist in other embodiments.

[0022] Moreover, it is noted that anything found to be already known during the patenting process is understood not to be claimed and to be the subject of a disclaimer.

[0023] With reference to the figures, the reference numeral 1 designates a motorcycling boot.

[0024] The boot 1 comprises a sole 2, to which an upper 3 is fixed; such upper is advantageously soft or made of rigid plastics or provided with rigid inserts, and its height is such as to partially cover the tibia of the user.

[0025] At the rear and laterally, the upper 3 has an articulated structure 4, made of rigid plastic material, which is suitable to protect the ankle joint of the user and allow its movement.

[0026] The upper 3 is open upward and at the front so as to form a first flap 5a and a second flap 5b, which face each other and protrude approximately from a first region 6 of the upper 3, which lies above the instep of the user's foot, up to a second region 7 of the upper 3, which is arranged above the ankle of the user.

[0027] First and second slots 8a and 8b are provided longitudinally respectively on the first flap 5a and on the second flap 5b and affect said first and second flaps approximately starting from the first region 6 up to the second region 7.

[0028] Below the first and second flaps 5a and 5b, and in an approximately symmetrical position with respect to them, there is an elongated flexible tongue 9, which is fixed to the upper 3 approximately at the first region 6 and affects approximately all of the length of the first and second flaps 5a and 5b; the tongue 9 is advantageously made of a sponge-like and breathable material.

[0029] A tape 11 is arranged longitudinally, approximately starting from the first region 6, on a first surface 10 of the tongue 9 that is directed toward the outside of the upper 3, and lies approximately at the longitudinal axis of the tongue 9 and is fixed to it at a series of portions 12 that are substantially perpendicular to its longitudinal axis and are approximately mutually equidistant so as to form loops 13 between the tape 11 and the first surface 10.

[0030] The free end of the tape 11 is folded and fixed to the tongue 9 so as to form a ring 14 that is suitable to facilitate the grip of the tongue 9 on the part of the user.

[0031] The first and second flaps 5a and 5b can be mutually fastened by means of a lace 15, which passes alternately from the first flap 5a to the second flap 5b and vice versa respectively through the first and second slots 8a and 8b, crossing a loop 13 of the tongue 9 at each passage.

[0032] As an alternative, the first and second flaps 5a

and 5b can be fastened together by means of an appropriately provided cable, not shown in the figures, which interacts with appropriately provided guiding elements, also not shown, which are provided on said first and second flap or on said upper.

[0033] A known type of blocking element 16 is advantageously associated with the ends of the lace 15 and can be fixed to the lace 15 in a chosen position in order to prevent it from sliding, beyond a chosen point, toward the lower ends of the first and second flaps 5a and 5b, loosening their mutual fastening.

[0034] The upper 3 comprises a tab 17, which is approximately triangular and is rigidly coupled with a first end 18 at one of the first or second flaps 5a or 5b.

[0035] With reference to the boot shown in Figure 3, the first end 18 of the upper 3 is rigidly coupled to the first flap 5a.

[0036] The tab 17 wraps around the front part of the tibia, covers the first and second flaps 5a and 5b and has, proximate to a second end 19, a first element 20, which is constituted by a ribbon with which the first teeth of a zip fastener 21 are associated; such ribbon runs approximately starting from the sole 2 of the boot 1 up to approximately the second region 7 of the upper 3.

[0037] The first teeth of the first element 20 can be fastened with second teeth of a second element 22, which is constituted by a ribbon that is fixed to the flap, of said first or second flaps 5a or 5b, of the upper 3 that is not rigidly coupled to the tab 17, laterally to the respective first or second slots 8a or 8b.

[0038] With reference to the boot shown in Figure 1, the second element 22 of the zip fastener 21 is rigidly coupled to the second flap 5b.

[0039] Between the first element 20 and a first perimeter edge of the second end 19 of the tab 17 there are means for temporary connection to said upper, which are advantageously constituted by a first band 23 made of a material known by the trademark Velcro, which affects the second end 19 along approximately all of its length.

[0040] The first band 23 is matched by a second band 24, also made of a material known by the trademark Velcro, which is arranged on the upper 3 laterally to the second element 22; the second band 24 affects the first or second flaps 5a or 5b, to which the second element 22 is fixed, along approximately all of its length, partially covering the second element 22.

[0041] The tab 17 is advantageously made of semirigid plastics, in order to provide good support to the ankle of the user, and has a second external surface 25, which is substantially smooth or sculpted so that it provides low drag for the stream of air that strikes the boot during the motion of the motorcycle.

[0042] Operation is therefore as follows: with reference to Figure 1, in a boot 1 the zip fastener 21 is open and the tab 17 can thus be spaced toward the outside of the upper 3.

[0043] By releasing the blocking element 16, the lace 15 is free to slide, through the first and second slots 8a

and 8b and the loops 13, toward the first region 6 of the upper 3, allowing the mutual spacing of the first and second flaps 5a and 5b.

[0044] By flexing the tongue 9 toward the outside of the upper 3 by gripping the ring 14, the user can therefore insert his foot in the boot 1.

[0045] By pulling the ends of the lace 15 toward the outside of the upper 3, the first and second flaps 5a and 5b are moved mutually closer, compressing the tongue 9 toward the foot and the ankle of the user and thus increasing the fastening action.

[0046] Once the intended degree of fastening has been achieved, it can be maintained by acting on the element 16 for blocking the sliding of the lace 15, so as to prevent the lace from sliding toward the first region 6, and preventing the mutual spacing of the first and second flaps 5a and 5b.

[0047] The blocking element 16 is applied to the two tips of the lace 15 and therefore can be activated in order to prevent said tips from being drawn toward the first region 6 of the upper 3 and loosening the degree of fastening of the flaps.

[0048] At this point, the tab 17 can be arranged above the first and second flaps 5a and 5b, optionally covering the lace 15 and the blocking element 16, which are thus arranged inside the upper 3 and cannot be accessed from the outside.

[0049] The closure of the zip fastener 21 entails achieving a further fastening of the boot 1, so as to ensure optimum support of the foot and ankle of the user.

[0050] Finally, the first band 23 is fixed to the corresponding second band 24 in order to make the tab 17 adhere rigidly to the upper 3 and thus strengthen the boot 1.

[0051] As an alternative, it is possible to position the blocking element 16 outside the boot or the tab 17, by forming on said tab an appropriately provided hole 26, which can be formed in a chosen point of the tab 17.

[0052] As an alternative, the blocking element 16 can be arranged outside the boot 1, making it protrude beyond the upper perimetric edge 27 of the boot 1.

[0053] Therefore, after inserting the foot in the boot 1, it is possible to move the first flap 5a slightly toward the second flap 5b by means of a first traction applied to the lace 15; then the tab 17 is positioned so as to obtain, by activating the zip fastener 21, a first locking of the foot and leg inside the boot 1.

[0054] It is then possible to achieve a fine adjustment of the degree of fastening, specifically of the foot, by acting on the blocking element 16 that lies outside the boot 1: it is in fact possible to pull the tips of the lace 15 until the chosen degree of fastening is achieved and then act on the blocking element 16 in order to maintain it over time.

[0055] In this second case, it is therefore possible to adjust the degree of fastening of the boot 1 without having to open the zip fastener 21.

[0056] If, during use, the motorcyclist wishes to loosen

the degree of fastening on the foot, it is sufficient to act on the blocking element 16 so as to loosen the lace 15 by the chosen extent.

[0057] It is also possible to increase the tension of the lace 15, again by acting on the blocking element 16, this time by pulling further the lace 15 and then locking its position.

[0058] It has thus been found that the invention has achieved the intended aim and objects, a motorcycling boot having been obtained which is capable of providing the user with adequate support and protection of the ankle and foot and at the same time ensures very comfortable fit.

[0059] Further, the motorcycling boot according to the invention retains good aerodynamic characteristics, since the tab that covers the lace offers low drag with respect to the stream of air that strikes the boot during the motion of the motorcycle.

[0060] Moreover, the operations required to put on, adjust and remove the boot according to the invention are very quick and easy.

[0061] The invention is of course susceptible of numerous modifications and variations, all of which are within the scope of the appended claims.

[0062] The materials used, as well as the dimensions that constitute the individual components of the invention, may of course be more pertinent according to the specific requirements.

[0063] The various means for performing certain different functions need not certainly coexist only in the illustrated embodiment but can be present per se in many embodiments, including ones that are not illustrated.

[0064] The characteristics described as advantageous, convenient or the like may also be omitted or be replaced with equivalents.

[0065] The disclosures in Italian Patent Application No. TV2004A000085 from which this application claims priority are incorporated herein by reference.

[0066] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. A motorcycling boot with improved fastening, **characterized in that** it comprises an upper provided with a first flap and a second flap, which can be fastened together selectively by means of a lace or cable, said upper comprising a tab, which is rigidly coupled with a first end at one of said first or second flaps, wraps around the tibia and has, proximate to a second end, a first element of a zip fastener that can be fastened with a second element of said zip

fastener that is coupled laterally to the flap of said first or second flaps of said upper that is not rigidly coupled to said tab.

2. The motorcycling boot according to claim 1, **characterized in that** said tab is approximately triangular and is made of semirigid plastic material. 5

3. The motorcycling boot according to claims 1 and 2, wherein said lace alternatively passes through first and second slots formed respectively in said first and second tabs, **characterized in that** said first element is constituted by a ribbon with which the first teeth of said zip fastener are associated, said teeth being fastenable with second teeth provided in said second element, said second element being constituted by a ribbon that is rigidly coupled to the flap of said first or second flaps of said upper that is not rigidly coupled to said tab, laterally respectively to said first or second slots. 10
15
20

4. The motorcycling boot according to claims 1 and 3, wherein an element for selectively blocking the sliding of said lace or cable is associated with the ends of said lace or cable, **characterized in that** said blocking element can be positioned inside said boot. 25

5. The motorcycling boot according to claims 1 and 3, wherein an element for selectively blocking the sliding of said lace or cable is associated with the ends of said lace or cable, **characterized in that** said blocking element can be positioned externally to said boot. 30

6. The motorcycling boot according to claims 1 and 5, **characterized in that** at least one hole is provided in said tab and said blocking element is made to exit therefrom. 35

7. The motorcycling boot according to claim 6, **characterized in that** said hole is formed in a front or lateral region of said tab or in a lateral region of said upper. 40

8. The motorcycling boot according to claim 5, **characterized in that** said blocking element protrudes from the upper perimetric edge of said upper or tab. 45

9. The motorcycling boot according to one or more of the preceding claims, **characterized in that** means for temporary connection to said upper are provided between said first element and a first perimetric edge of said second end of said tab. 50

10. The motorcycling boot according to claim 9, **characterized in that** said means for temporary connection to said upper are constituted by a first band of material known by the trademark Velcro, which af-

fects said second end along approximately all of its length and is matched by a second band of material known by the trademark Velcro, which is arranged on said upper laterally to said second element and affects said first or second flap to which it is fixed along approximately all of its length.

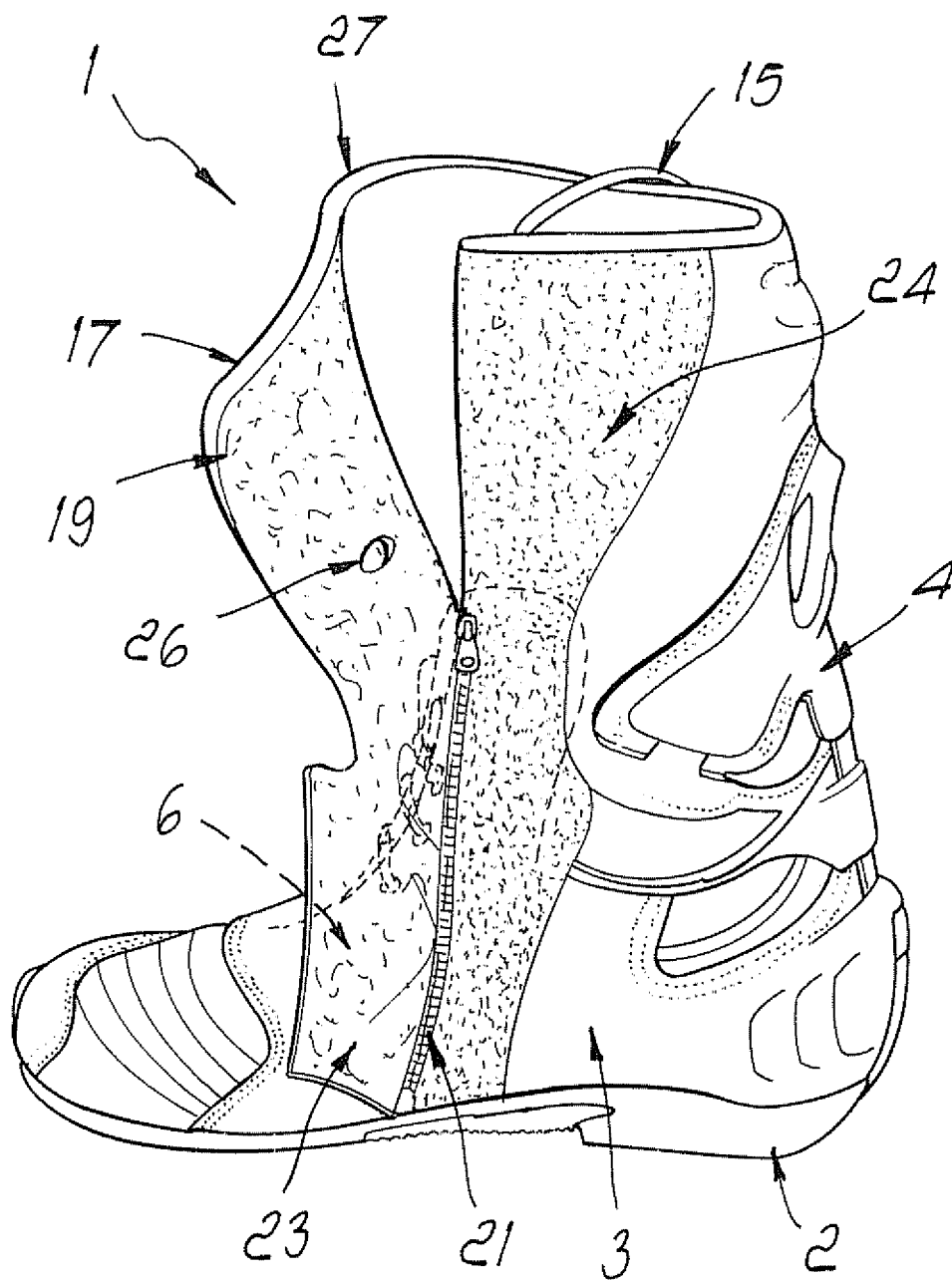


Fig. 1

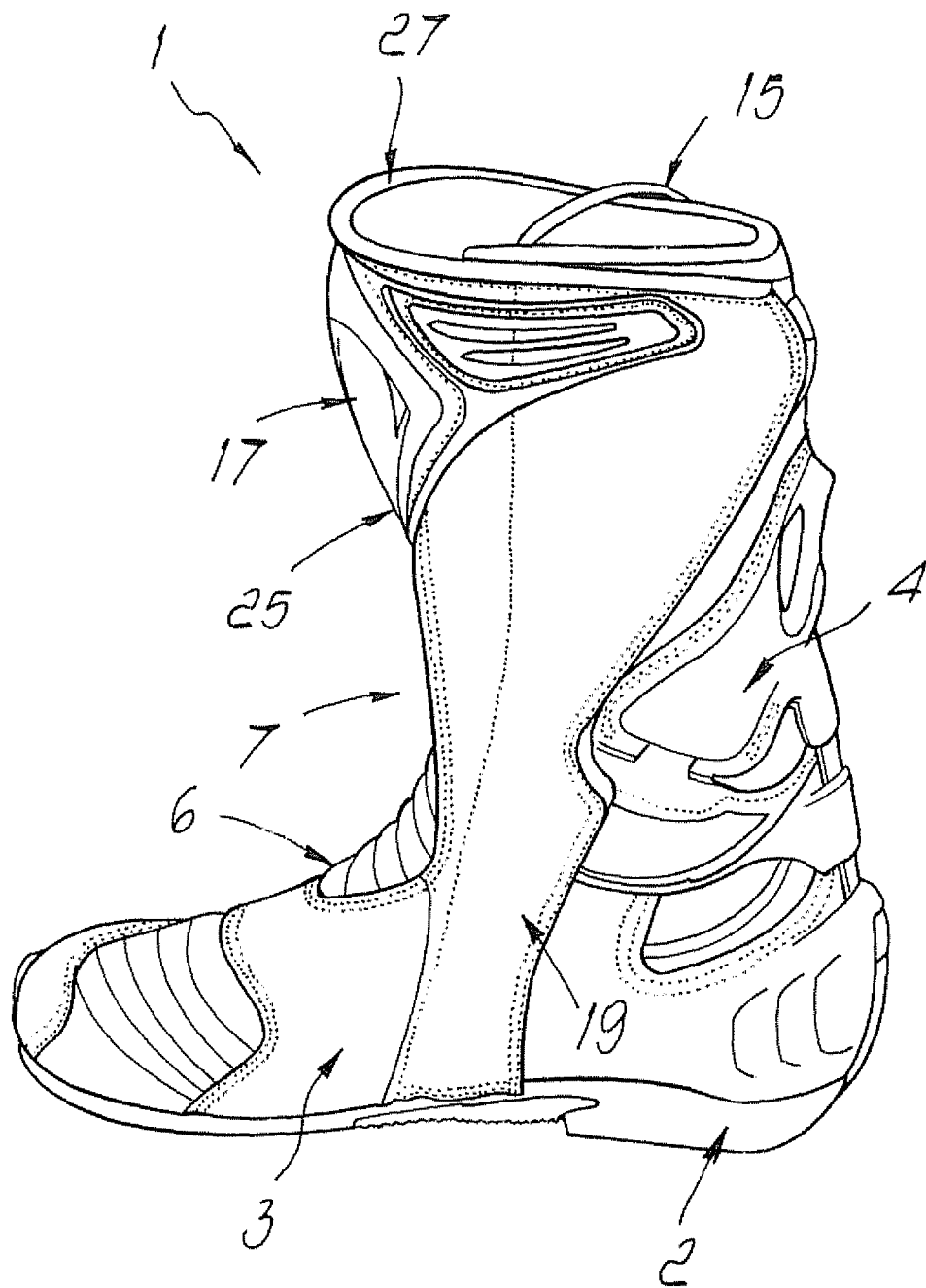
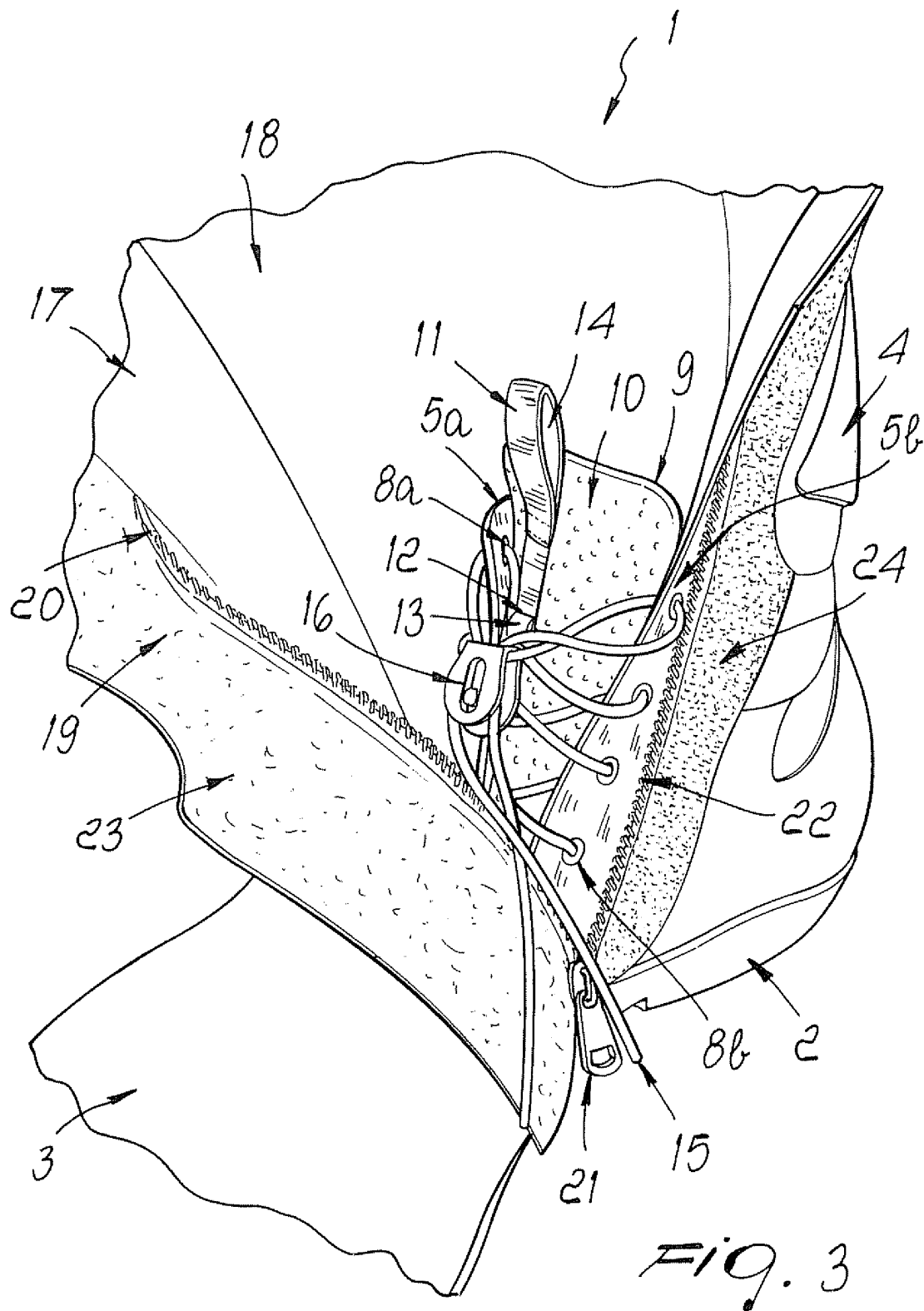


Fig. 2





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 05 10 6882

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	US 4 882 858 A (SIGNORI ET AL) 28 November 1989 (1989-11-28) * column 2; figures 1,2 *	1-10	A43B5/14 A43B23/26 A43C11/14 A43C7/00
Y	EP 1 310 182 A (SALOMON S.A) 14 May 2003 (2003-05-14) * paragraph [0004]; figures *	1-10	
A	US 5 566 474 A (LEICK ET AL) 22 October 1996 (1996-10-22)	1-10	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			A43B A43C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 19 October 2005	Examiner Claude1, B
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 03.82 (P04C01)

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

EP 05 10 6882

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.

19-10-2005

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4882858	A	28-11-1989	IT 213697 Z2 JP 1128601 U	22-01-1990 01-09-1989
EP 1310182	A	14-05-2003	FR 2832036 A1	16-05-2003
US 5566474	A	22-10-1996	AT 180395 T DE 69418650 D1 DE 69418650 T2 EP 0631737 A1 FI 942986 A FR 2706744 A1 JP 7051103 A NO 942237 A	15-06-1999 01-07-1999 02-12-1999 04-01-1995 22-12-1994 30-12-1994 28-02-1995 22-12-1994