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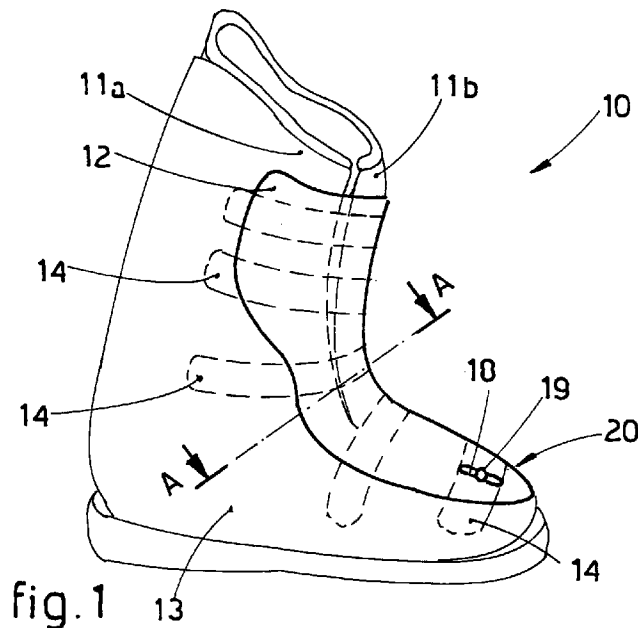
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(54) Outer tongue to cover flaps on ski boots

(57) Outer tongue to cover flaps on ski boots (10), which comprise at least two frontal flaps (11a, 11b) positioned side by side or overlapping substantially at the central vertical longitudinal plane (22) of the upper (13) and also clamping clasps (14), the outer tongue (12) being associated with the front upper side of the upper (13) of the boot (10) in a longitudinally slidable manner together with slidable anchorage means (20), and covering, in the closed position of the boot (10), at

least the zone of union of the flaps (11a, 11b) astride that plane (22) and cooperating outwardly with the clamping clasps (14) and being displaced towards the instep of the foot, the outer tongue (12) being resiliently anchored to the upper (13) on only one side thereof and including on its side opposite to the anchorage side a shaping (21) of a reduction of width.



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Description

This invention concerns an outer tongue to cover flaps on ski boots, as set forth in the main claim.

The invention is applied to the field of sports footwear and, to be more exact, to the embodiment of ski boots of a type with a plurality of clasps and/or of a type having the frontal flaps overlapping.

Ski boots of a type with a plurality of clasps and, in particular, those with four clasps, and/or of a type having the frontal flaps overlapping, entail the problem of not being able to ensure a sufficient clamping of the instep of the foot within the upper of the boot.

Owing to this fact, the users of ski boots have complained for some time now about an incorrect control of the boot and therefore of the ski associated therewith.

Boots have therefore been disclosed to overcome this problem that include an inner central tongue which extends to the leg of the boot and which is overlapped by the lateral flaps.

Depending on the model of the boot, this tongue can be associated with the inner shoe inserted into the upper or can be associated directly with the upper.

This tongue not only does not ensure a correct clamping of the instep of the foot but also does not ensure the desired hydraulic seal of the boot, and therefore water infiltrates into the boots of the state of the art.

Embodiments are known which include an outer tongue to cover flaps which is positioned above so as to overlap and cover the lateral flaps (see in particular FR-A-2.693.085 and FR-A-1.587.712).

WO-A-92 16120 also discloses an embodiment in which the longitudinal position of the tongue can be adjusted in relation to the upper of the boot.

These embodiments, while they ensure an effective clamping of the foot within the boot and a good seal in respect of the outer environment, involve the shortcoming of entailing difficulties of inserting/withdrawing the foot into/from the boot.

The present applicants have designed, tested and embodied this invention to overcome the shortcomings of the state of the art and to achieve further advantages.

This invention is set forth and characterised in the main claim, while the dependent claims describe variants of the idea of the main embodiment.

The purpose of this invention is to provide a ski boot which makes possible a comfortable use of the boot even with very low temperatures or with wet socks, a correct clamping of the instep of the foot and a good hydraulic seal against external factors.

The boot according to the invention comprises at least two lateral flaps cooperating on their upper side with a central outer tongue secured resiliently in the vicinity of the point of the upper of the boot and extending so as to cooperate with the zone of the leg of the boot.

This central tongue cooperates outwardly with closure and clamping clasps which, when closed, not only bring the tongue into intimate contact with the lateral

flaps, thus closing the boot hermetically, but also thrust the flaps and the inner shoe of the boot so as to adhere to the instep of the foot.

In the closed position the flaps may be contiguous or at least partly overlapping.

According to one embodiment of the invention the tongue is secured laterally in a resilient manner on only one side to the upper of the boot so as to make possible, during the steps of putting on/taking off the boot, an opening movement which leaves a great space for access for the insertion/removal of the foot into/from the upper itself.

In this embodiment the tongue advantageously has an asymmetrical conformation defining a specially shaped portion at the side opposite to the anchorage side.

Moreover, according to this embodiment there are advantageously included three flaps, of which two are partly superimposed on each other so as to close from above the half-arc of the upper opposite to the anchorage side of the tongue, while the other flap is positioned in such a way as to close from above the other half-arc, namely that corresponding to the side of anchorage of the tongue.

The central tongue is fitted at its front end so as to be able to slide axially in the vicinity of the point of the upper of the boot, so that the tongue can slide longitudinally when the upper of the boot is closed by the clamping clasps, thus causing the tongue to thrust the flaps and the inner shoe into intimate contact at least with the instep of the foot of the user.

According to a particular form of embodiment the upper of the boot on which the tongue is rested includes on its upper side abutment means which oppose longitudinal displacement and which cooperate with abutment means of a mating form included in the central tongue.

These abutment means ensure correct positioning of the tongue also during oscillation of the leg of the boot in the forward-backward plane of the boot.

To be more exact, the forward inclination of the leg of the skier causes the central tongue to slide axially forwards, and the progressive resistance exerted by the abutment means prevents its uncontrolled forward displacement, which would lead to a resulting insufficient control of the movement.

The abutment means therefore ensure a progressive and controlled axial sliding of the central tongue.

With the inclusion of these abutment means the boot according to the invention always ensures a correct control of the movement and a correct distribution of the stresses.

The attached figures are given as a non-restrictive example and show a preferred embodiment of the invention as follows:-

Fig.1 is a diagram of a ski boot including the tongue according to the invention;

Fig.2a is a diagram of a cross-section of the

- ski boot of Fig.1 along the line A-A;
- Fig.2b is a diagram of a variant of the ski boot of Fig.2a;
- Fig.2c is a diagram of another variant of Fig.2a;
- Fig.3 is a diagram of a particular form of embodiment of the tongue according to the invention in association with a boot;
- Figs.4 and 5 show respective lateral and front views of the ski boot using the tongue according to the invention;
- Fig.6 shows the ski boot of Fig.5 in a first opened position;
- Fig.7 shows the ski boot of Fig.5 in a second opened position.

The reference number 10 in the figures denotes generally a ski boot comprising lateral flaps 11, in this case 11a, 11b and 11c, which are positioned side by side to close the instep of the foot of the skier.

In particular, in the example of Fig.2c the flaps 11a and 11c are partly superimposed on each other so as to close from above a half-arc of the upper 13 of the boot 10, while the flap 11b is arranged to close from above the other half-arc of the upper 13.

In the example of Fig.2a the flaps 11a and 11b are positioned side by side in the closed position

According to a variant the two flaps 11a, 11b are partly superimposed on each other (Fig.2b) in the closed position.

The ski boot 10 according to the invention comprises a central tongue 12 associated with the upper 13 of the boot 10 in a front upper position and cooperating with the outer surface of the lateral flaps 11a, 11b, 11c so as to cover the zone of the union of the lateral flaps 11a, 11b, 11c and thus to ensure a good hydraulic seal.

The central tongue 12 cooperates on its outer side with clamping clasps 14, which are closed and keep the central tongue 12 pressed against the lateral flaps 11a, 11b, 11c and against the inner shoe so as to clamp the instep of the foot of the user.

The central tongue 12 can slide axially on the forward part of the upper 13 of the boot 10, with which the tongue 12 is associated, so as to improve the suitability of the boot 10 to be worn and so as to prevent deformation of the tongue 12 when the skier closes the boot 10.

In this case, the central tongue 12 includes at its front end slidable anchorage means 20 including in this case a longitudinal slot 18, with which there cooperates a pin 19, or two pins 19 in the example of Fig.5, solidly associated with the front upper part of the upper 13 of the boot 10.

With the zone including the slidable anchorage means 20 there cooperates advantageously one of the clamping clasps 14 so as to ensure a good hydraulic seal and to prevent infiltration of water into the boot 10.

In this case, the central tongue 12 is secured to the upper 13 at one side thereof so as to be able to be resiliently opened (Figs.6 and 7) to permit easy operations

of putting on/taking off the boot 10 by the user.

At the side opposite to the anchorage side the central tongue 12 has a specially shaped portion 21, which reduces its extent and makes greater the space for access by the user to the inside of the boot 10.

The flap 11b is placed on the anchorage side of the central tongue 12 and covers the half-arc of the upper 13 substantially up to the vicinity of the central longitudinal plane 22 (Fig.2c).

The half-arc opposite to the anchorage side of the central tongue 12 is covered by superimposition of the flaps 11a and 11c, in which the lower flap 11a ends at a position more distant from the plane 22 than the opposite flap 11b and is overlapped by the flap 11c so as to cover the relative half-arc substantially as far as the plane 22.

This asymmetrical configuration of the central tongue 12 and of the flaps 11a, 11b, 11c makes possible the definition of a very great space for access in the steps of putting on/taking off the boot 10, as can be seen in Figs.6 and 7, but does not impair in any way in the closed position either the adherence to the instep of the foot and therefore the correct control of the boot 10 or the seal against any possible infiltrations.

According to a particular form of embodiment shown in Fig.3, so as to prevent the central tongue 12 being able to slide axially when the foot of the skier thrusts forwards, the central tongue 12 includes on its lower side abutment means 16a which resist longitudinal displacement of the central tongue 12 when the clasps 14 are in the closed position.

To be more exact, these abutment means 16a cooperate with abutment means 16b of a mating form included on the upper 13 of the boot 10.

In this case, the abutment means 16a associated with the central tongue 12 consist of lateral hollow means 15 which cooperate with relative wedge means 17.

Cooperation of the wedge means 17 with the hollow means 15 causes a progressive resistance to the forward sliding of the central tongue 12 so as to ensure a proper control of the movement and a correct distribution of the stresses.

Claims

1. Outer tongue to cover flaps on ski boots (10), which comprise at least two frontal flaps (11a, 11b) positioned side by side or overlapping substantially at the central vertical longitudinal plane (22) of the upper (13) and also clamping clasps (14), the outer tongue (12) being associated with the front upper side of the upper (13) of the boot (10) in a longitudinally slidable manner together with slidable anchorage means (20), and covering, in the closed position of the boot (10), at least the zone of union of the flaps (11a, 11b) astride that plane (22) and cooperating outwardly with the clamping clasps (14) and being displaced towards the instep of the

foot, the tongue being characterised in that it is resiliently anchored to the upper (13) on only one side thereof and includes on its side opposite to the anchorage side a specially shaped portion (21) providing a reduction of width.

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2. Outer tongue (12) as in Claim 1, which cooperates from above with at least a third flap (11c), which is at least partly superimposed on the flap (11a) positioned on the opposite side to the side of anchorage of the tongue (12).

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3. Outer tongue (12) as in Claim 2, in which the flap (11a) ends at a distance from the plane (22) greater than the corresponding distance of the flap (11b), while the third flap (11c) ends substantially at, or in the vicinity of, the plane (22).

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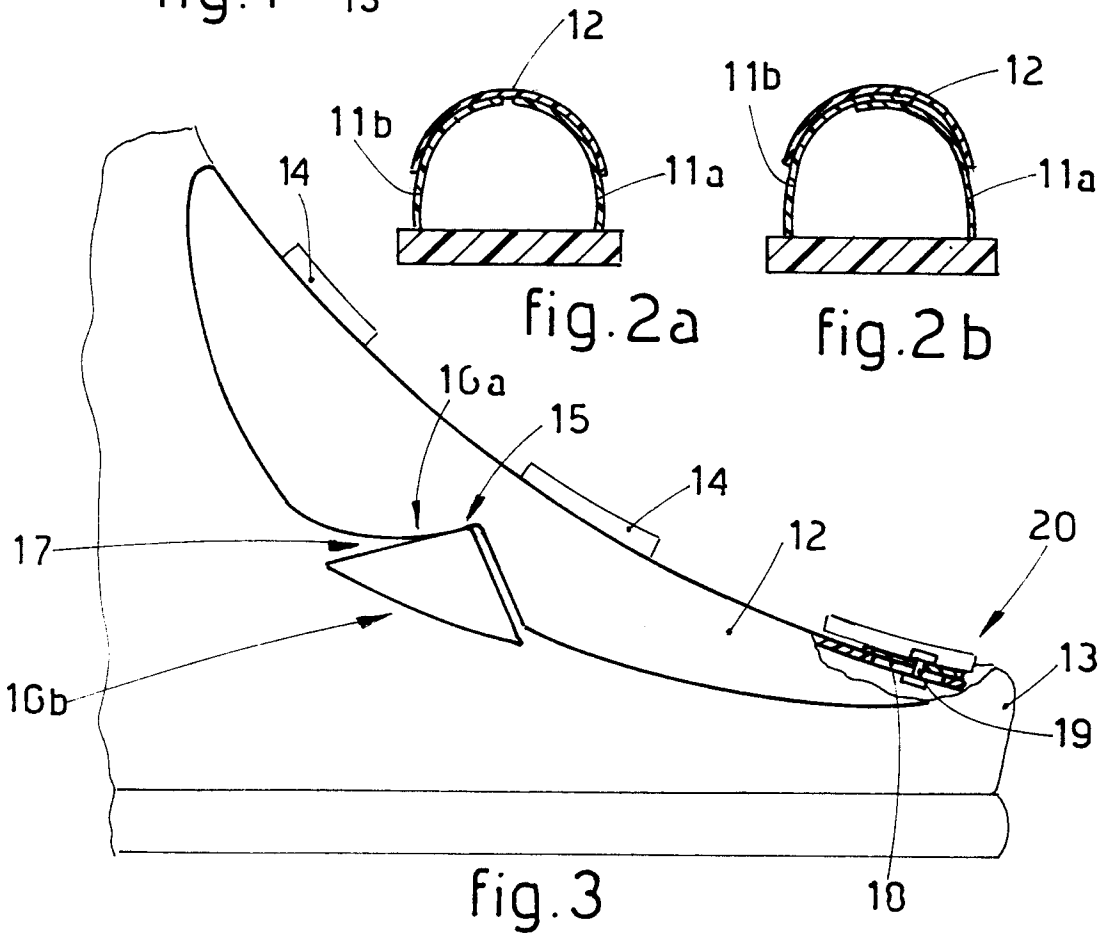
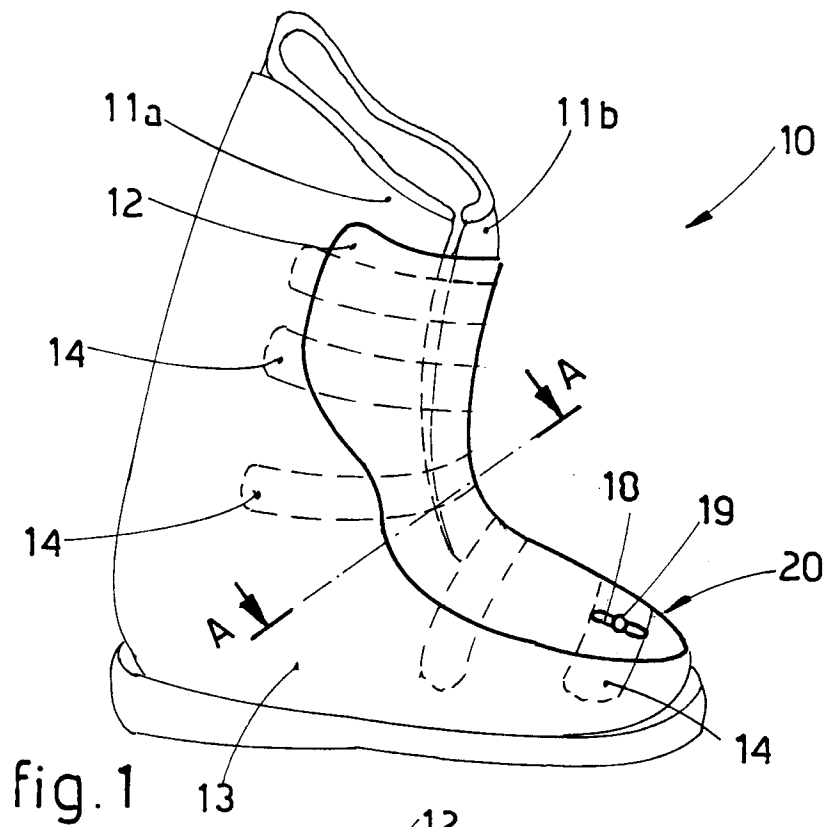
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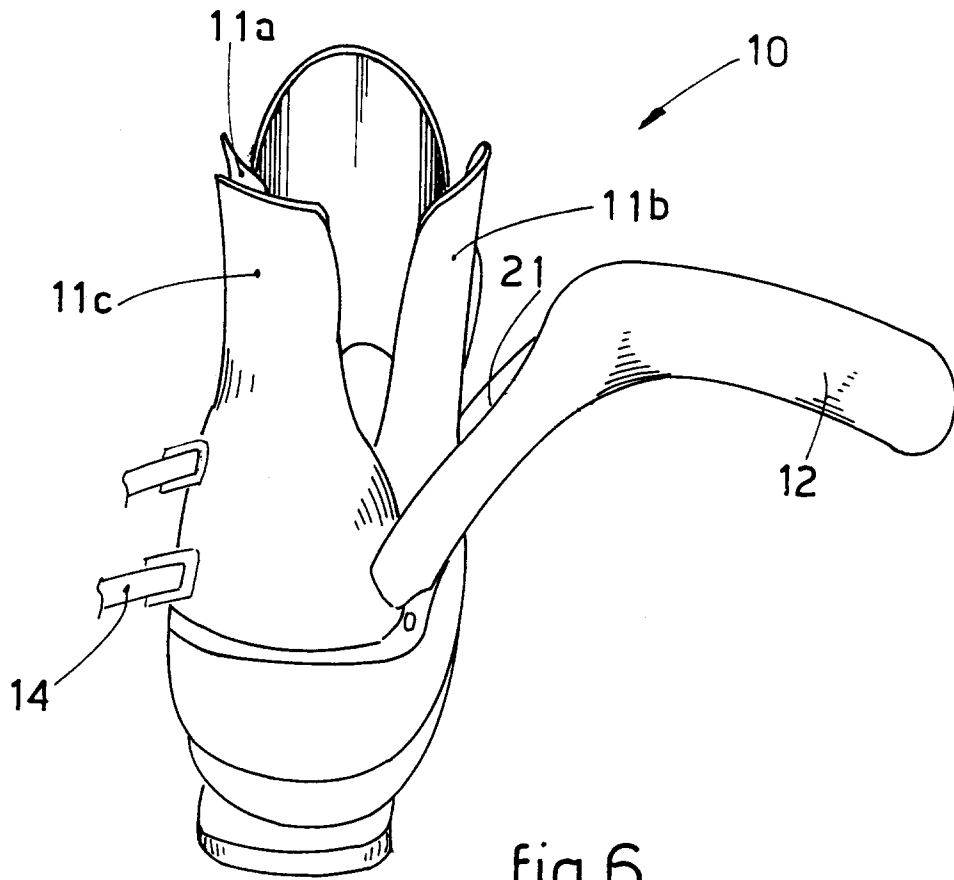


fig.6

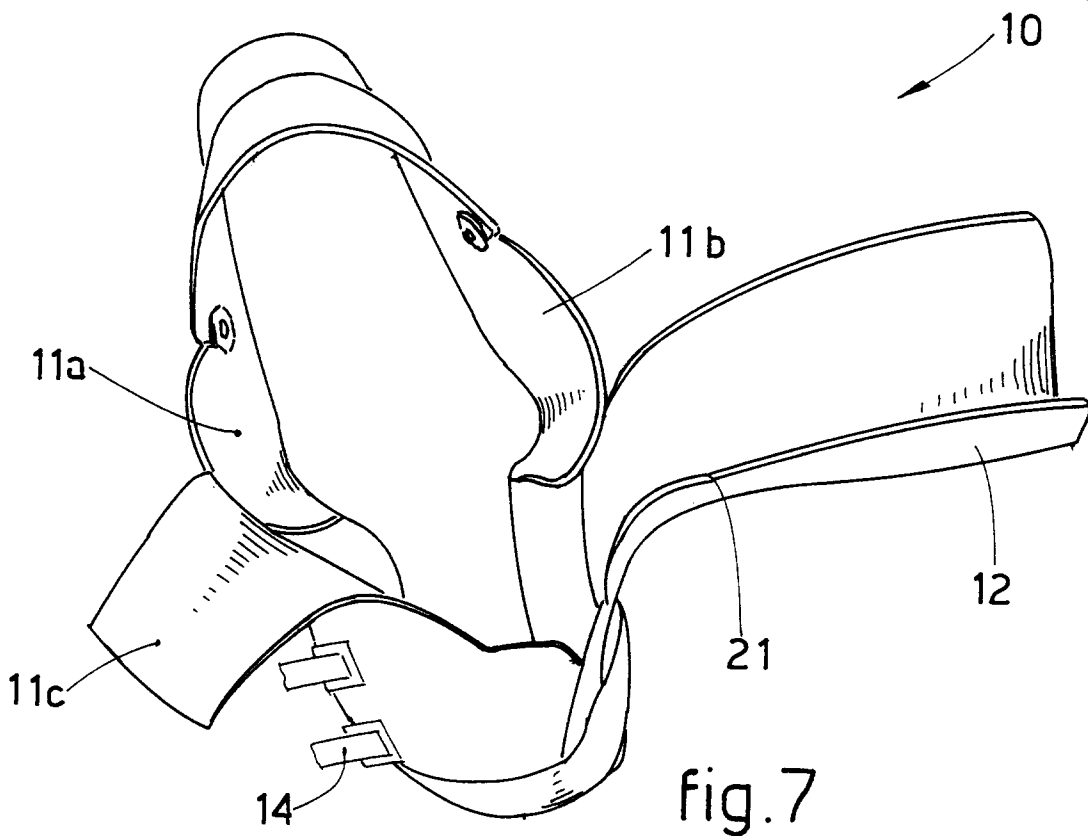


fig.7



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EUROPEAN SEARCH REPORT

Application Number
EP 96 11 0722

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.6)
A,D	WO-A-92 16120 (H. GIRARDELLI) * the whole document * ---	1	A43B5/04
A	AT-A-365 428 (DYNAFIT) * the whole document * ---	1	
A	FR-A-2 714 270 (SALOMON) * the whole document * ---	1	
A,D	FR-A-2 693 085 (SALOMON) * the whole document * ---	1	
A,D	FR-A-1 587 712 (LE TRAPPEUR) * the whole document * ---	1	
A	WO-A-95 11602 (KOFLACH) * the whole document * -----	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			A43B
Place of search		Date of completion of the search	Examiner
THE HAGUE		16 August 1996	Declerck, J
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