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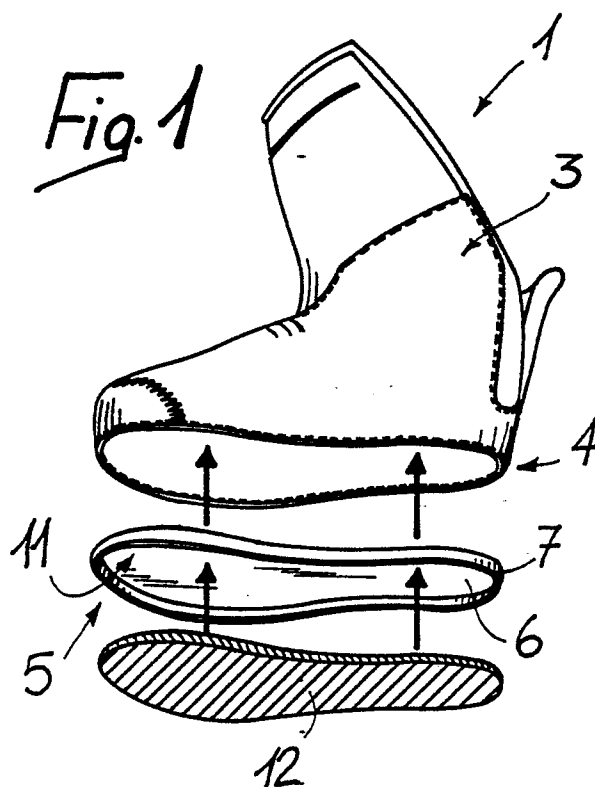
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54 **Inner shoe for ski boots.**

57 Inner shoe for ski boots consisting of an upper (3), open at the region of the sole of the foot, associated with an insole (5) having its perimetral edge (7) folded downwards to define a margin of connection to the upper (3) and an external seat (11) adapted to receive an elastically deformable means (12) interposable between the insole (5) and a supporting structure (8) associated with the shell (9) of the boot (2).



INNER SHOE FOR SKI BOOTS

The present invention relates to an inner shoe particularly usable in ski boots.

The use in ski boots of inner shoes, which are usually sewn and assembled on a last, is currently known.

The assembly of these inner shoes sequentially entails the perimetral sewing of an insole, the insertion of the last, the application of an adhesive, the reactivation thereof by heating, the glueing of a sole by pressing and then the extraction of the last.

Such known types of inner shoes are not free from disadvantages, among which there is the high cost due to the several steps required to assemble the shoe.

As a partial solution to said disadvantages, an inner shoe is also known which is provided with a "strobel" sewing on the perimetral border of the sole for its fixing to the upper: though it does not require a last for its assembly, this inner shoe has, however, a less than optimum aesthetical appearance both because the sewing is in view and because a sharp edge is defined at the jointed perimetral borders which does not allow an optimum adaptation to the interior of the shell of the ski boot.

Furthermore, said inner shoe provides poor thermal insulation.

The aim of the present invention is therefore to eliminate the disadvantages described above in known types, by devising an inner shoe for ski boots which can be obtained in a simple and rapid manner and which has optimum comfort characteristics for the skier.

Another important object is to devise an inner shoe which associates with the preceding characteristics that of allowing to vary the characteristics of comfort according to skier's specific requirements.

Within the scope of the above described aim, another important object is to obtain an inner shoes which has good aesthetical characteristics as well as an optimum thermal insulation.

Not least object is to devise an inner shoe which is optimally adaptable to the interior of the shell of the boot.

The aim and the objects described above, as well as others which will become apparent hereinafter, are achieved by an inner shoe for ski boots, comprising an upper, open at the region of the sole of the foot, characterized in that it comprises - an insole, associable with said upper and having its perimetral edge folded downwards to define a margin for its association with said upper

and an external seat for at least one elastically deformable means interposable between said insole and a supporting structure, associated with the shell of a ski boot.

Further characteristics and advantages of the invention will become apparent from the detailed description of a particular embodiment illustrated only by way of non-limitative example in the accompanying drawings, wherein:

fig. 1 is a side exploded view of the components of the inner shoe;

fig. 2 is a view along a transverse cross section plane of the inner shoe illustrating a preferred solution for the assembly of the insole to the upper;

fig. 3 is a side sectional view of a boot internally provided with the insole.

With reference to the abovementioned figures, the inner shoe 1, particularly usable for a ski boot 2, is composed of an upper 3 which is open at the base 4 of arrangement of the sole of the foot.

The inner shoe 1 furthermore comprises an insole 5 which is associable at the open base 4 of the upper 3, said insole having a base plane 6 for the sole of the foot the perimetral edge 7 whereof is folded downwards, that is to say, in the direction of a supporting structure 8 provided at the region of the sole of the foot of the shell 9 of the boot 2.

Said perimetral border 7 defines a margin for the sewing of said insole 5 to said upper 3, said sewing being performed, for example, with a chain stitch or a stitch of another type by means of an adapted sewing machine 10.

The perimetral border 7 furthermore defines a seat 11, external to the upper 3, for a complementarily shaped elastically deformable means 12 removably accommodatable therein.

Said elastically deformable means 12 is thus interposable between the base plane 6 of the insole 5 and the supporting structure 8 consisting, for example, of a plurality of raised portions 13 rigidly associated to and projecting from the foot resting region of the shell 9.

Said supporting structure 8 can alternately be composed of an ordinary wedge removably insertable within the boot.

The elastically deformable means 12 constitutes a padding, having a differentiated structure if required, adapted to optimize the fit and the support of the various points of the foot.

The use of the means 12 furthermore allows to dampen shocks by absorption, its structural composition allowing a different degree of damping in one or more points or allowing a differentiated thermal insulation according to the particular materials used.

The insole 5 is instead preferably molded in semirigid material, being optionally obtainable with known heat-forming processes, high-frequency electric forming processes, or others.

The assembly of the inner shoe is thus very simple, since the operator need only to insert, without the use of lasts, the insole 5 at the open base 4 of the upper 3 and subsequently sew it at the perimetral border 7.

The elastically deformable means 12 most appropriate according to the characteristics of the skier will subsequently be inserted in the seat 11.

It has thus been observed that the invention achieves the aim and the objects intended, an inner shoe having been obtained which is easy, rapid and scarcely onerous to manufacture, and which furthermore has optimum characteristics of comfort for the skier, it being possible to vary said characteristics according to the specific requirements of said skier.

Besides allowing to differentiate the comfort characteristics, it is also possible to differentiate the fit, support and thermal insulation characteristics of the inner shoe.

Since said inner shoe does not require the use of lasts for its assembly, it is possible to achieve modest production costs yet obtain an inner shoe of a good technical level.

The use of the elastically deformable means 12 furthermore allows to eliminate inside the boot 1 the use of the wedge; providing directly at the foot resting region the supporting structure 8, entailing lesser assembly costs for the boot and smaller investments in molds by eliminating of the wedge.

Naturally the invention is susceptible to numerous modifications and variations, all of which are within the scope of the same inventive concept.

Moreover, all the materials, as well as the dimensions of the individual components, may by any according to the specific requirements.

Claims

1. Inner shoe for ski boots, comprising an upper (3), open at the region of the sole of the foot, characterized in that it comprises an insole (5), associable with said upper (3) and having its perimetral edge (7) folded downwards to define a margin for its association with said upper (3) and an external seat (11) for at least one elastically de-

mable means (12) interposable between said insole (5) and a supporting structure (8), associated with the shell (9) of a ski boot (2).

2. Inner shoe according to claim 1, characterized in that said insole (5) has a base plane (6) for the sole of the foot, the perimetral edge (7) whereof is folded downwards in the direction of said supporting structure (8) rigidly associated with and protruding from the region of the sole of the foot of said boot (2).

3. Inner shoe, according to claim 1 or 2, characterized in that said insole (5) can be positioned at the open end of said upper (3) and is associable therewith by sewing said margin defined by said perimetral edge (7), said insole (5) defining a seat (11), external to said upper (3), for a complementarily shaped elastically deformable means (12) removably accommodatable therein.

4. Inner shoe according to claim 1 or 3, characterized in that said elastically deformable means (12) has a surface which interacts with said supporting structure (8), said supporting structure (8) consisting of a plurality of transverse raised portions (13) rigidly associated to and protruding from the foot resting region inside said boot (2).

5. Inner shoe according to claim 1, 2 or 4, characterized in that said supporting structure consists of a wedge removably insertable inside said boot.

