# United States Patent [19]

**Bertelé**

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[54] **SKI BOOT**


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[58] **Field of Search** ..... 36/2.5 R, 2.5 AL, 50



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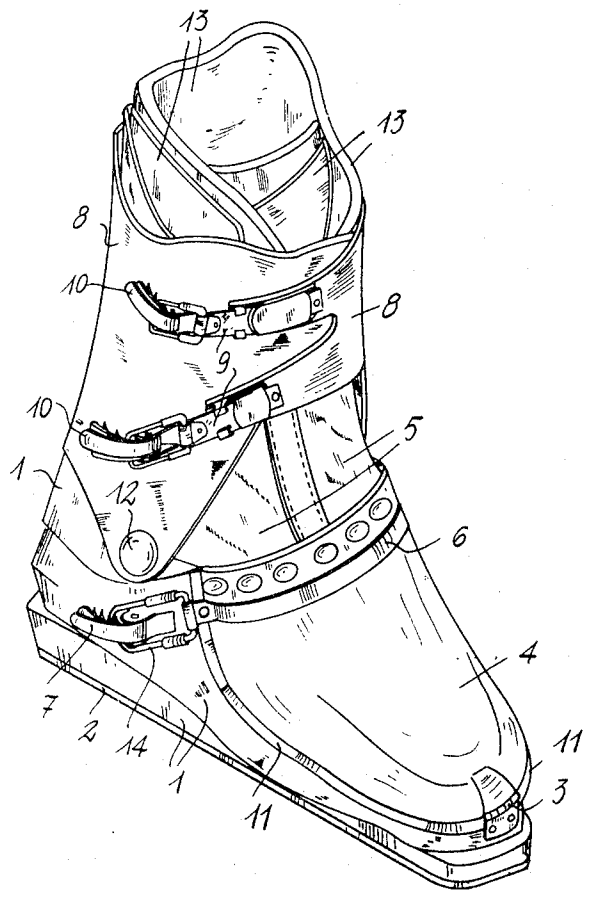
[57] **ABSTRACT**

Ski boot permitting the introduction and the locking therein of a foot already wearing a preferably watertight and thermally insulated shoe. The ski boot substantially comprises a rigid shell defining a seat for the receiving shoe, and a rigid cover means hingedly connected with the shell. The rigid cover means is lockable, in closed position on the shell for firmly retaining therein the shoe in which is inserted the foot of the user. The shell carries a seal strip which the cover means abuts in its closed position.


**3 Claims, 3 Drawing Figures**



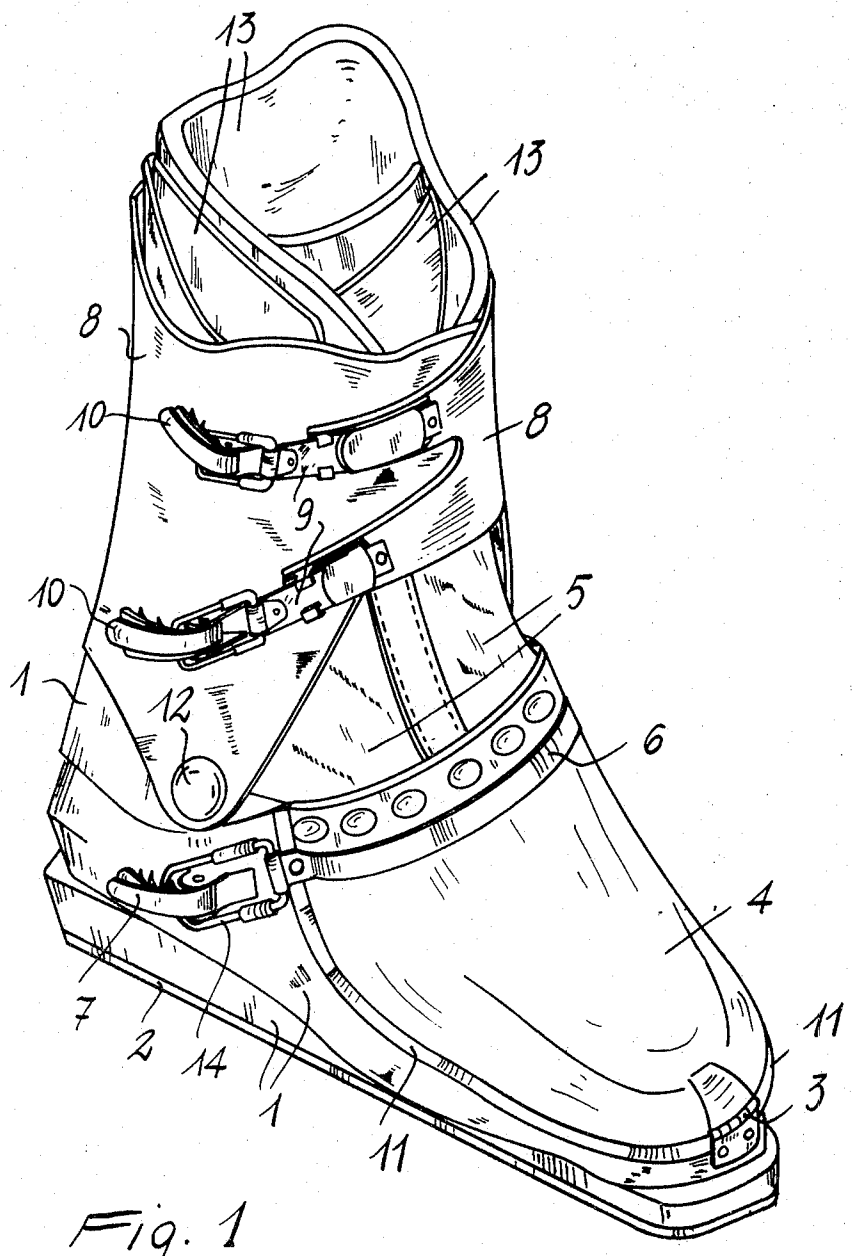



Fig. 1

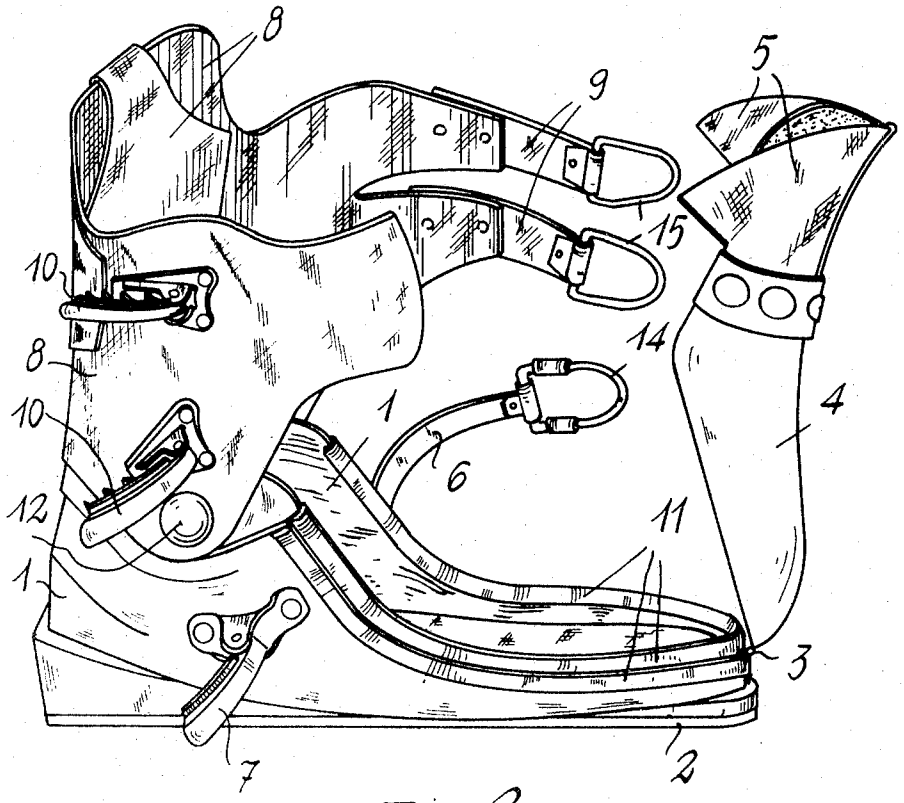



Fig. 2

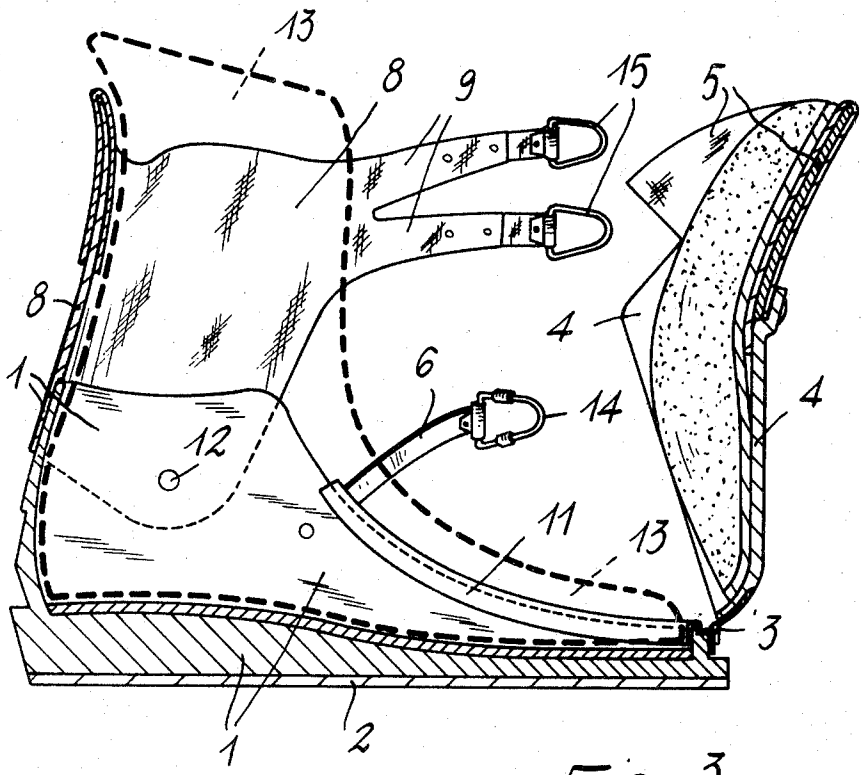



Fig. 3

# SKI BOOT

This invention relates to a ski boot.

Many types of ski boots are already known; made of leather or plastics. The known ski boots have the disadvantage of having poor strength and particularly exhibit the disadvantage that therein only feet with socks can be introduced, this being remarkably uncomfortable when the ski boot must be put on or taken off outdoors, such as in snow covered terrain.

An object of this invention is to provide a ski boot having very high strength and rigidity and which can be put on by a person who has his feet already inserted in shoes or similar coverings, which can be waterproof and thermally insulated.

Another object is to provide a ski boot of the mentioned type, which assures an efficient protection against possible ankle bone breakages of the ski boot user, and which inhibits any water seepage into the interior of the ski boot.

These and other objects are attained by a ski boot comprising a shaped shell defining a seat for receiving a shoe, said shell having an aperture for introducing said shoe in said seat, the ski boot further comprising a cover means hingedly connected to said shell and locking means for locking said cover means in superimposed relationship on said aperture, said cover means and said shell being made of substantially rigid and tough material.

The invention will become apparent from the following disclosure of a preferred embodiment, shown in the annexed drawings, wherein:

FIG. 1 is a perspective view of the ski boot in closed position;

FIG. 2 is a lateral view of the ski boot shown with its cover means in raised position for permitting the introduction of a foot wearing a shoe, and

FIG. 3 is a longitudinal sectional view of the ski boot of FIG. 1, wherein a shoe inserted in the ski boot is shown in dotted lines.

Referring to the drawing, the ski boot comprises a shaped shell 1 which forms the sole, the sides and the rear section of the ski boot. The shell 1 defines a seat in which a shoe or ankle boot, such as shown at 13 in perspective in FIG. 1 and in dotted lines in FIG. 3 can be placed. The free edges of the sides of shell 1 define an aperture through which the shoe 13 can be easily introduced in the seat defined by the shell, as is easily deducible from FIGS. 2 and 3.

Beneath the sole defined by shell 1 is placed a strip or layer 2 of anti-slip material, e.g., rubber, while above the sole a strip of felt or other similar material is preferably fixed, as clearly shown in FIG. 3.

At it can be seen from the drawing, a sheath 8 made of flexible material (such as leather or plastics) is fixed to the shell 1 by rivets 12 or similar attachment. Straps 9 bearing metal rings 15 project from sheath 8. Locking rack-like levers 10, well known in the art, are connected to said sheath, as clearly shown in FIGS. 1 and 2.

Along the free edges of the admission aperture to the seat defined by shell 1, there is mounted a shaped sealing strip 11, the function of which will be apparent hereinafter.



At the front end of the ski boot, a hinge 3 is secured to the shell 1, said hinge rotatably connecting a cover means 4 with the shell. At the upper end of the cover means 4, a flexible prolonging sheath member 5 is secured which is made of leather or plastics. Preferably, a strip of soft material such as felt, foam rubber or plastics, is bounded on the inner surface of the shell and the sheath member 5, as clearly shown in FIG. 3.

The cover means 4 is so contoured that when lowered on the shell 1 it completely closes (FIG. 1) the aperture through which the shoe-wearing foot can be introduced in the seat defined by the shell 1. In the closed position, the cover means can be firmly locked by a locking strip 6, which has one end connected (e.g., through a hinge, not shown) to the shell, while the other end carries a metal ring 14 which, can be locked and tensioned by a known rack-like lever 7 hingedly connected with the shell.

When the cover means is locked in closed position, the levers 10 can be engaged with the rings 15 thus firmly locking the shoe-wearing foot within the boot.

In order to achieve unobjectionable functionality of the disclosed ski boot, both the shell 1 and the cover means 4 are made of a substantially rigid resistant material, such as metal or metal alloys or heat-hardening glass-fiber reinforced plastics or resins. Preferably the shell 1 and the cover 4 are aluminum alloy die castings. A section of the hinge 3 can be directly built-in within the shell and another section can be directly built-in within the cover means 4 at the time of diecasting, by which method the shell and cover means are formed.

It is obvious that, because the wearer of the ski boot is already wearing water-proof or thermally insulated shoes, he has no need of substituting the ski boot for his shoes or ankle boots (thus practically exposing his feet) as is presently the case. It is also apparent that the ski boots can be left directly on the skis without any need of disengaging the same.

What I claim is:

1. A ski boot comprising a shaped shell defining a seat for receiving a shoe, said shell having an aperture for introducing said shoe in said receiving seat, said shell including portions forming the sides, the sole and the ankle part of the ski boot, said aperture extending substantially along the entire length of the sides of the ski boot, a cover means hingedly connected to said shell at the tip thereof, sheath members of flexible material fixed to said shell and said cover means, locking members for locking said cover means in superimposed relationship on said aperture, said cover means and said shell being made of substantially rigid and tough material, and sealing means disposed along the edge of said aperture, said cover means having a closed position in which it rests on said sealing means.

2. A ski boot as claimed in claim 1, wherein said material of said shell and said cover means is a metal.

3. A ski boot as claimed in claim 2, wherein said metal is an aluminum alloy.

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