

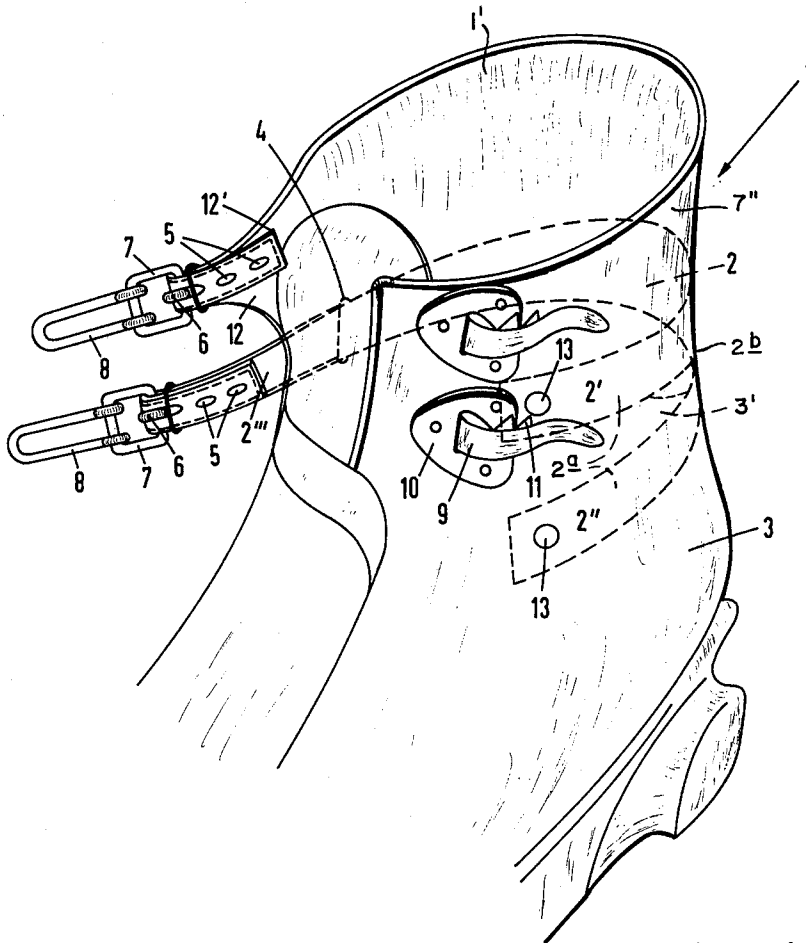
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SKI BOOT

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## 3,224,118 SKI BOOT

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3 Claims. (Cl. 36—50)

The present invention relates to a boot which is provided with at least one draw strap which extends from one side of the upper around the part covering the Achilles tendon to the other side of the upper and preferably to a point near the front edge thereof. Such draw straps are frequently provided especially in ski boots for the purpose of pressing the heel of the foot firmly upon the sole since a proper control of the ski, especially during downhill runs, requires that the heel of the foot cannot be lifted from the sole of the boot. Prior to the invention, ski boots have therefore often been provided with so-called heel straps which were secured on the sole at one side of the upper and were then extended around the part covering the Achilles tendon of the foot to the other side of the upper. Each boot was preferably provided with a pair of such straps which crossed each other at the heel portion.

Such crossing heel straps have to be very strongly tightened in order to exert the traction which is necessary to prevent the heel from being lifted off the sole. This may lead to a painful pressure upon the Achilles tendon and may even cut off a part of the blood circulation of the foot.

It is an object of the present invention to provide a boot, and especially a ski boot, with draw straps which overcome the above-mentioned disadvantages. For attaining this object, the invention provides that the draw strap only extends directly above the calcaneus or heel bone so that when the draw strap is tightened, the upper will be drawn into the constricted part of the foot above the heel bone and will also engage into the lateral depressions of the foot above the heel bone. The heel will thus be tightly wrapped by the upper and can no longer be lifted off the sole. Contrary to the known heel straps as above described, the draw strap according to the invention therefore does not exert a direct traction upon the heel, and the boot which is designed according to the invention and provided with such a draw strap avoids the disadvantages which result from such a direct traction upon the heel. The draw strap according to the invention has merely the function of contracting the upper directly above the heel bone so as to conform exactly to the contours of the foot by also engaging into the lateral constrictions of the foot.

The draw strap according to the invention is preferably inserted into the boot between the lining and the outside of the upper so as to protect it from being damaged from the outside. This insertion of the draw strap also has the advantage that the traction which is exerted upon the upper (but not upon the heel) does not have to be as strong as when the draw strap is secured to the outside of the upper.

The draw strap should consist of a relatively stiff but highly elastic material, for example, a fabric with metallic threads woven in or a strong leather strip which is reinforced by a nylon strip glued thereon.

According to a preferred embodiment of the invention, one end of the draw strap is secured to the upper, while its other end extends from or through the upper to the outside and is adapted to be hooked upon a locking member which is secured to the outside of the upper. In order to distribute the traction which is applied upon the out-

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wardly projecting end of the draw strap over a larger area, the other end portion of the draw strap which is secured to the upper may be divided and the strips which are formed by the division may be drawn apart and secured to the inside of the upper near their free ends.

The features and advantages of the present invention will become more clearly apparent from the following detailed description thereof which is to be read with reference to the accompanying drawing.

According to the invention, the ski boot 1 is provided with a draw strap 2 which is inserted between the lining 1' and the leather 1'' of the upper and extends around the back of the shoe only in the top portion 3' above the heel portion 3 of the upper. Strap 2 has one end region 2a which extends within the upper and which is divided into the strips 2' and 2'' the ends of which are riveted to the upper. The other end region 2''' of the draw strap is passed through a slit 4 in the leather of the upper to the outside. Strap 2 also has a central region 2b which extends from end region 2a to the point where the strap passes through slit 4. This end 2''' is provided with holes 5 and is looped around one end bar of a buckle 7 which carries a tongue 6 rigidly attached to buckle 7 and extending toward the interior of the region enclosed by the buckle, and which is adapted to be inserted into one or another of the holes 5 to vary the effective length of this end and the buckle 7 thereon. The other end bar of buckle 7 carries an eye member 8 which is pivotable thereon and adapted to be hooked over a locking member which consists essentially of a tightening lever 9, the eye member 8 being brought into engagement with lever 9 by passing the buckle 7 and the end of draw strap region 2''' around the front of the upper, i.e., in front of the tongue of the boot. This lever is pivotably mounted on a base plate 10 which is riveted to the outer closure flap of the upper opposite to the buckle 7. Lever 9 is provided with a number of teeth 11 on any one of which the eye member 8 may be hooked. There are thus two possibilities of adjusting the draw strap 2, one by an adjustment of the buckle 7 and the other by hooking the eye member 8 over one or another of the teeth 11 on the tightening lever 9. The tension which is necessary for drawing the upper into the recessed parts of the foot above the heel bone may in this manner be easily and accurately adjusted in accordance with the respective requirements.

In addition to the draw strap 2, the ski boot 1 is provided with a strap 12 which is integral with the upper and projects from the inner closure flap directly underneath the upper opening of the boot. The free end 12' of this strap is likewise provided with an adjustable buckle 7 and an eye member 8 thereon which may also be hooked over and tightened by a locking member of the same construction as the member 9 for the draw strap 2. By means of the strap 12 it is possible to tighten the upper end of the boot so as to fit firmly around the lower part of the leg.

Although my invention has been illustrated and described with reference to the preferred embodiment thereof, I wish to have it understood that it is in no way limited to the details of such embodiment, but is capable of numerous modifications within the scope of the appended claims.

Having thus fully disclosed my invention, what I claim is:

1. A ski boot to be worn on the foot of a skier and having an upper composed of outside leather and an inner lining, said upper having a heel portion for receiving the heel part of said foot and a top portion for enclosing the part of said foot in which the Achilles tendon is disposed, said leather having a slit therein on one side of said upper, a draw strap disposed only in said top portion of said upper, said draw strap having one end region anchored

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to said upper on the side thereof which is opposite from the side on which said slit is located, said strap further having a central region extending around the back of said boot to pass adjacent the region to be occupied by the Achilles tendon, said one end region of said strap and said central region thereof being positioned between said lining and said leather, said strap passing through said slit and having its opposite end region located outside of said leather; connecting means attached to said other end region of said strap; and holding means anchored to said leather of said upper on the side thereof at which said one end region of said strap is attached for holding said connecting means.

2. A ski boot as defined in claim 1 wherein said one end region of said draw strap is split.

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3. A ski boot as defined in claim 1 wherein said holding device comprises a tension lever locking device.

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