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H. BINDER ETAL

3,190,015

SKI BOOT

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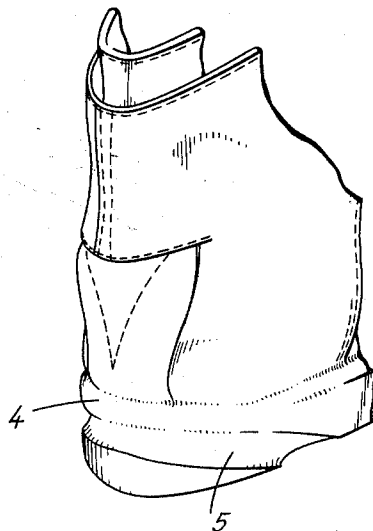
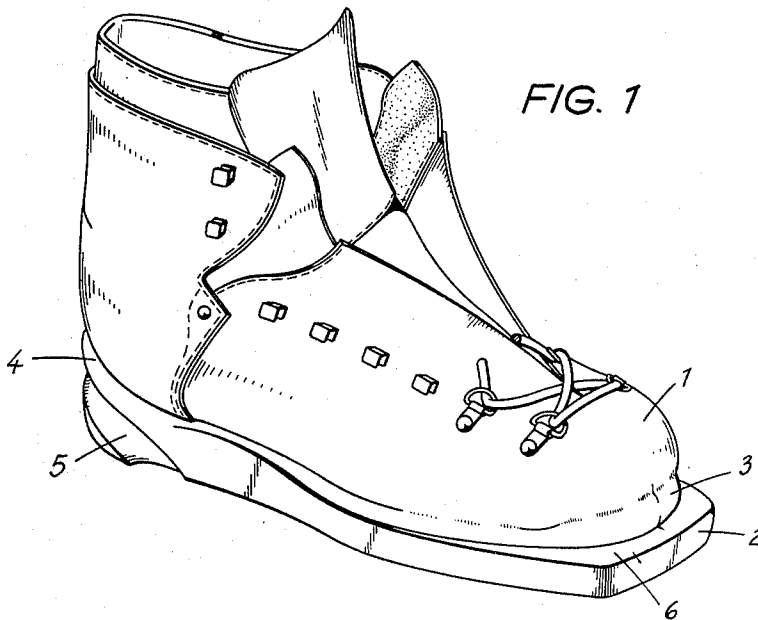


FIG. 2

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3,190,015
SKI BOOT

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The present invention relates to a ski boot with an outer sole vulcanized or injection molded thereon.

Many of the known types of ski boots have the serious disadvantage that the upper of the boot will be easily damaged by the ski binding which is secured to the boot.

It is therefore an object of the present invention to provide a ski boot which overcomes the above-mentioned disadvantage and protects the upper of the boot from being damaged by the cable of the ski binding. For this purpose, the invention provides the outer sole of the boot to be extended upwardly at the heel so as to form a protective layer or cover on the outer side of the upper, and this cover to be secured to the upper by being vulcanized or injection molded thereon. The cable of the ski binding will thus be prevented from engaging with the leather of the upper and from chafing the same.

Since the binding of a ski which is secured to the ski boot exerts a considerable traction upon the upper thereof, it is of extreme importance that not only the outer sole, but also the protective cover which is produced by drawing the heel upwardly is firmly secured to the upper. This is attained according to the invention by vulcanizing or injection molding the outer sole and the protective cover to the upper. The outer sole and the cover which extends upwardly on the outer side of the upper may consist of a vulcanizable material such as natural or synthetic rubber or of a plastic, for example, polyvinyl chloride, which lends itself to injection molding techniques. For the sake of simplicity, the term "molded" will hereinafter be used to include either injection molding or vulcanizing, and the term "molded" is to be so construed in the following specification and claims.

It is a further object of the invention also to protect the toe portion of the upper of a ski boot from being damaged, for example, by the chafing action of the jaws of the ski binding which extends over the front edge of the sole. For this purpose, the invention further provides that the outer sole extends upwardly also at the toe portion to form a further protective layer or covering which is likewise secured to the upper by being vulcanized or injection molded thereon.

These and further features and advantages of the invention will become more clearly apparent from the following detailed description of a preferred embodiment thereof as illustrated in the accompanying drawings, in which:

FIGURE 1 shows a perspective view of a ski boot according to the invention; while

FIGURE 2 shows a perspective view of the rear part of the ski boot.

As shown in the drawing, the ski boot has an upper on which the outer sole 2 is vulcanized or injection molded by conventional techniques as shown, for example, in Austrian Patent No. 172,173. The sole extends, i.e., is

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raised, upwardly to form at the toe portion 1 of the upper a protective cover in the form of a bead or bulge 3 and at the heel portion a second protective cover also in the form of a bead or bulge 4. The heel and the protective cover extending upwardly from the heel are further provided with a groove 5 which extends around the heel and is open at both ends toward the bottom so that the cable of the ski binding can rest therein. The beadlike shape of the upwardly extending heel protective cover 4 of the outer sole has the advantage that the binding cable will slide easily into the groove 5, while the beadlike shape of the toe protective cover 3 allows the jaws of the binding to slide at the toe portion 1 over the bead 3 in the event that the jaws should once come into engagement with the toe portion of the upper. The outer sole 2 is preferably offset at the toe portion 1 relative to the upwardly extending bead-shaped cover 3 so as to form a flat plate or ledge 6 which projects forwardly and laterally of the toe portion of the upper and forms a good contact surface for the jaws of the ski binding which engage over the outer sole 2 at the toe portion, so that the shoe may be very firmly secured in the binding.

The manufacture of the ski boot according to the invention is relatively simple since the outer sole 2 and the toe and heel covers 3 and 4 may be produced and combined with the upper in a single operation.

It will be seen from the above that a ski boot according to the present invention is a boot having an upper and an outer sole 2 which has three recognizable portions, namely, a first bead-shaped portion 4 which is located in the region of the heel of the boot and is a raised up portion extending along the outside of the upper so as to form the heel protective cover, a second bead-shaped portion 3 which is located in the region of the toe 1 of the boot and is a raised up portion extending along the outside of the upper so as to form the toe protective cover, and a third portion 6 which is also located in the region of the toe of the boot and forms a forwardly and laterally projecting flat ledge portion. The outer sole, including its three portions, is, as stated above, molded to the upper so as to be firmly combined therewith.

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

Having thus fully disclosed our invention, what we claim is:

1. A ski boot having an upper and an outer sole; said outer sole having, in the region of the heel of the boot, a first raised up bead-shaped portion extending along the lower portion of the outside of said upper and forming a heel protective cover; said outer sole having, in the region of the toe of the boot, a second raised up bead-shaped portion extending along the lower portion of the outside of said upper and forming a toe protective cover; said outer sole having, also in the region of the toe of the boot, a third portion forming a forwardly and laterally projecting flat ledge portion; said outer sole, including said first, second and third portions thereof, being an integral entity molded to said upper so as to be firmly combined therewith.

2. A ski boot as defined in claim 1 wherein said outer sole is provided, in the region where it forms the heel of

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the boot and in its heel protective cover portion, with a groove for receiving a binding cable by means of which the boot is attached to a ski.

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