

Aug. 28, 1962

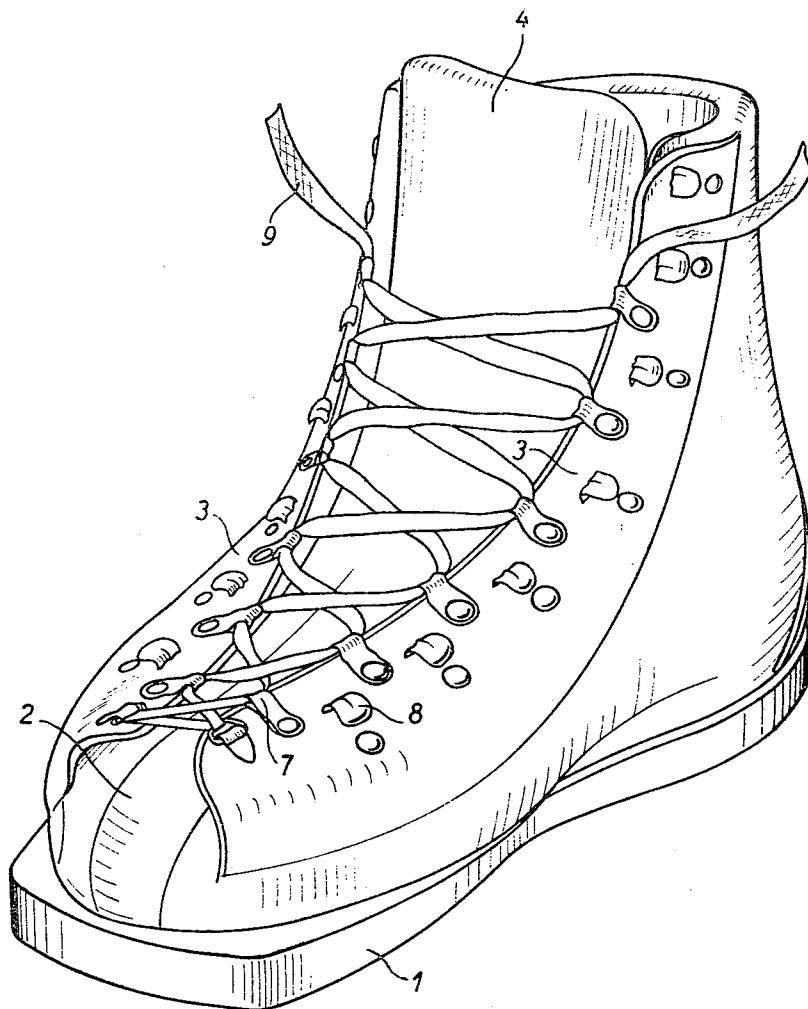
A. SILOMBRA
RUBBER SKI SHOE

3,050,874

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Fig. 1



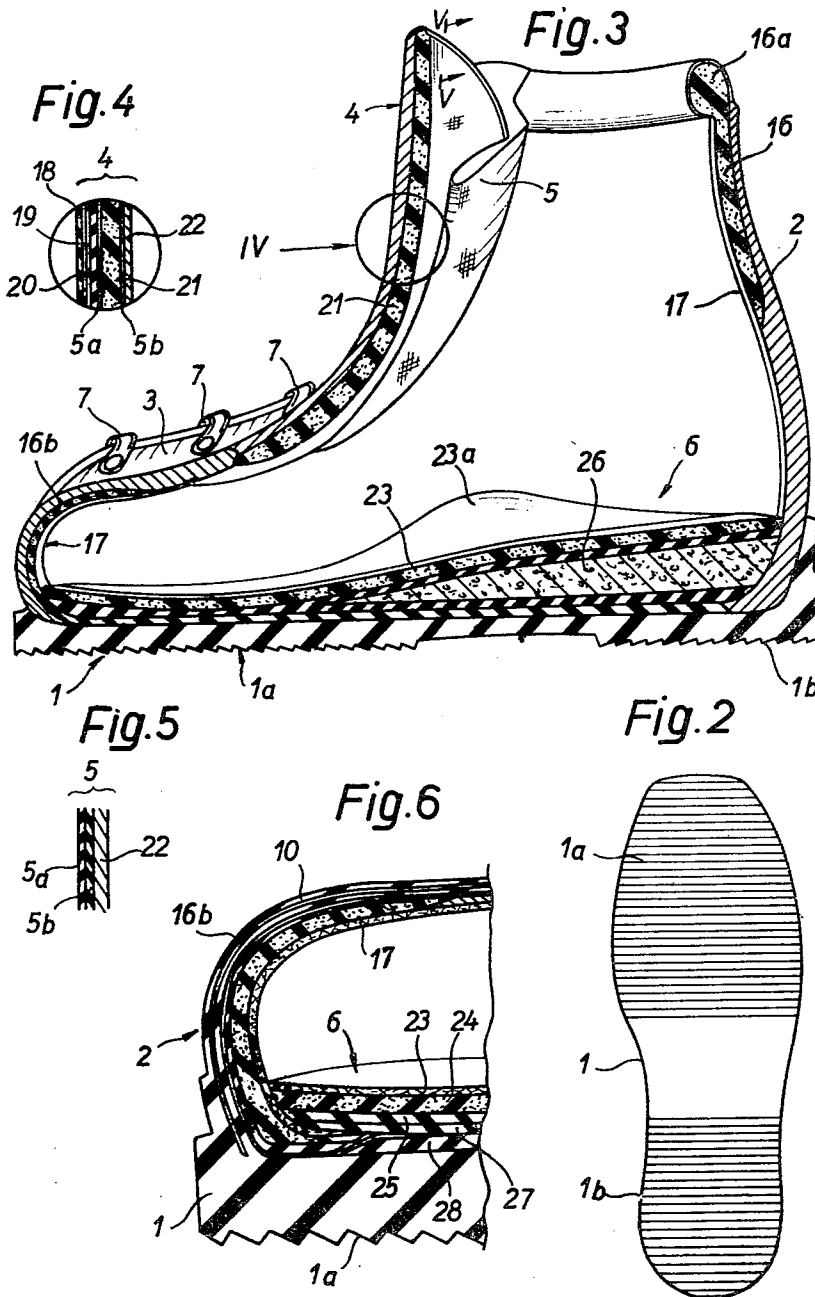
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RUBBER SKI SHOE

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3 Claims. (Cl. 36-2.5)

This invention relates to a ski shoe which meets requirements of modern down-hill technique and is in addition extremely comfortable, fully impervious, has a dampening effect on elastic movements of the wearer and does not require any upkeep as distinct from known shoes.

The improved shoe comprises an upper of vulcanized rubber provided with an inner lining of wool or the like, bonded by vulcanization to a premolded sole of stiff rubber.

A wedge of cork conglomerate or the like is interposed between the insole and sole at the rear of the shoe.

Further characteristic features and advantages of the improved shoe will be understood from the appended description referring to the accompanying drawings given by way of a non limiting example, wherein:

FIG. 1 is a perspective view of the shoe from the front;

FIG. 2 is a view from below;

FIG. 3 is a diagrammatical longitudinal sectional view;

FIG. 4 shows on an enlarged scale a detail of the portion denoted by the arrow IV in FIG. 3;

FIG. 5 is a sectional view on an enlarged scale on line V-V of FIG. 3;

FIG. 6 is a longitudinal sectional view on an enlarged scale of the forward shoe portion;

FIG. 7 is a longitudinal sectional detail view on an enlarged portion of the backward shoe portion;

FIG. 8 is an axial longitudinal sectional view on an enlarged scale of an intermediate portion of the shoe bottom.

The shoe sole 1 is integral with the heel made of stiff rubber.

The sole 1 is formed with cross ridges of saw-tooth shape extending parallel with one another. The ridges 1a at the forward sole portion are oppositely inclined to the ridges 1b at the heel portion.

The above tread pattern prevents slipping when the wearer walks intermediate skiing and simultaneously facilitates emergency unfastening of the safety ski fastenings.

The upper 2 is made of rubber bonded by vulcanization to the sole in a waterproof manner.

The upper has bonded thereto by vulcanization two rubber flaps denoted by 3 carrying the lace engaging means.

A rubber tongue 4 is lined with foam rubber and is integral with a bellows 5. The insole components are denoted by 6.

The lace engaging means 9 for the fastening of the shoe comprises a number of metal eyelets 7, secured to the facing edges of the rubber flaps 3. Hooks 8 alternate with the eyelets 7 and are secured to the rubber flaps 3 a certain distance from the edges of the latter.

The eyelets 7 and hooks 8 serve for fastening the shoe with all the advantages of a double lacing without the drawbacks thereof.

The upper 2 comprises, as shown in detail in FIG. 7, from the outside to the inside rubber layers 10, 12 alternating with cloth layers 11, 13, a layer of stiff rubber 14 and a layer of woolen fabric or the like acting as a lining 17 for the shoe.

With this lining the foot is kept at a practically constant temperature.

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Foam rubber inserts are interposed in the upper 2 between the stiff rubber layer 14 and lining 17.

At the backward shoe portion the intermediate foam rubber layer 16 extends upwardly by a thickened portion 16a at the top edge of the upper.

As shown by FIG. 7 an additional layer of woolen fabric 15 is arranged between the foam rubber layer 16 and stiff rubber layer 14.

A foam rubber layer 16b is interposed in the upper at the shoe tip, as shown in detail in FIG. 6.

The tongue 4 comprises from the outside to the inside a rubber layer 18, a cotton fabric layer 19, a stiff rubber layer 20, a foam rubber layer 21 and a knitted fabric layer 22.

The knitted fabric layer extends laterally of the tongue to form a bellows 5 and is lined with two rubber layers 5a, 5b extending within the tongue 4 to cover both faces of the foam rubber layer 21.

The bellows 5 is vulcanized to the upper 2 at the upper portion which is covered by the rubber flaps 3.

The insole 6 comprises from the inside to the outside a layer of woolen fabric or the like 23, similar to the layer 17 lining the upper, a foam rubber layer 24, an ordinary rubber layer 25, a stiff rubber layer 27 and a filler 28, likewise made of stiff rubber, interposed between the insole and sole 1.

A wedge 26 of cork conglomerate is interposed between the layers 25 and 27 at the backward shoe portion.

The insole 6 is provided with a foot-arch support 23a.

It will be seen from the drawings that the shoe shape insures an excellent mutual adherence of the shoe and foot so that all movements performed by the wearer are accurately transmitted to the skis.

The components of the shoe upper described above are bonded by vulcanization to one another which, together with direct bonding of the sole to the upper by vulcanization results in a fully impervious shoe.

Aeration of the shoe inside results from compression and release by the foot during use of the foam rubber inserts 16, 16b, 21 and 24.

With the above described structure of the shoe upper according to this invention the elastic movements performed by the wearer are resiliently damped, which was not possible with ski shoes having a leather upper as employed heretofore.

What I claim is:

1. A ski shoe comprising in combination; a seamless upper of vulcanized laminated rubber of diverse stiffness including an outer barrier of rubber layers alternating with fabric layers, an intermediate stiff rubber layer made of rubber having a comparatively greater stiffness than that of said rubber layers of the outer barrier, an insert of foam rubber and a layer of fabric such as woolen fabric applied to at least one face of said foam rubber insert, a sole of stiff rubber bonded by vulcanization to said upper, an insole including an inner layer of fabric such as woolen fabric, a foam rubber layer, an intermediate rubber layer, a stiff rubber layer made of rubber having a comparatively greater stiffness than that of said intermediate rubber layer of the insole and a stiff rubber filler interposed between said stiff rubber layer and said sole, and a wedge made of conglomerate material such as cork conglomerate interposed between said layers of said insole.

2. A ski shoe as defined in claim 1 wherein said wedge of conglomerate material is interposed between said intermediate rubber layer and the stiff rubber layer in the insole.

3. A ski shoe as defined in claim 1 wherein the shoe upper is provided with a tongue comprising an outer rubber layer, a cotton fabric layer, an intermediate stiff rubber layer made of rubber having a comparatively

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greater stiffness than that of the outer layer, a foam rubber layer and a woolen fabric layer.

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