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3,721,023

SPORTS BOOT

Filed Sept. 28, 1971

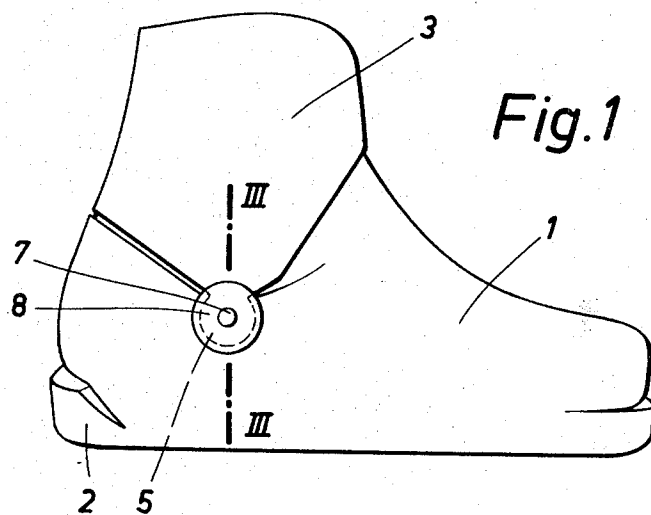


Fig. 1

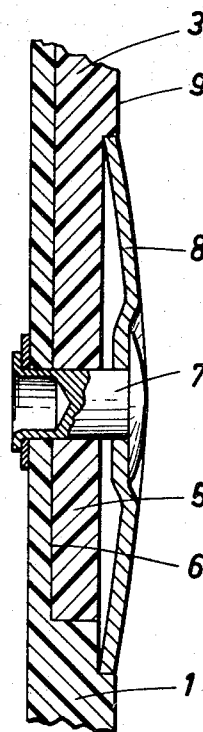


Fig. 3

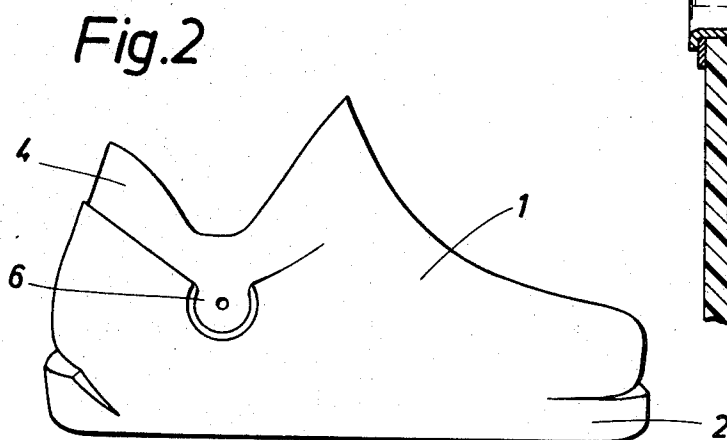


Fig. 2

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U.S. Cl. 36—2.5 AL

4 Claims

## ABSTRACT OF THE DISCLOSURE

An upper has a lower portion and a top portion. The lower portion has on each side an area which is recessed on the outside in a depth corresponding to the thickness of said top portion and an external recess which is laterally open toward said area. The top portion covers said area on each side and has on each side of the boot a circular hinge lug which extends into said external recess and defines a circumferential gap therewith. Two coaxial rivets are arranged to be substantially disposed on the axis of the ankle joint of a foot contained in said boot. Each of said rivets pivotally connects one of said lugs to said lower portion. Two cover plates are provided, each of which is secured to one of said rivets and flush with the surface of said boot and covers the adjacent one of said circumferential gaps.

This invention relates to a sports boot, particularly a skiing boot, which has an upper having a top portion, which is pivoted to a lower portion of the upper by means of hinges and carries stops for limiting the pivotal movement.

Boots having separate top and lower portions have the basic advantage to facilitate a pivotal movement about the axis of the ankle while affording a good protection against a canting of the foot. Known boots of said kind have the disadvantage that an adequate seal can be ensured only if a separate inner shoe is provided or the top and bottom portions of the upper must have a considerable overlap. In each case, the boot will have an increased thickness adjacent to the hinge and in the desired overlap areas. This increased thickness is disturbing particularly on the inner side of the boot because modern skiing requires boots which can be held closely together. Said thickened portions and projections prevent a holding of the boots with a close spacing and permits the protruding portions on the inner sides of the boots to interengage so that they may cause even a fall of the skier.

It is an object of the invention so to improve a boot of the kind mentioned first hereinbefore that the lower and top portions of the upper are connected by a joint which is watertight and yet facilitates a pivotal movement between said portions whereas there are no projecting beads, edges or hinge portions on the outer and inner sides of the boot.

The above-mentioned object is accomplished in that the top portion of the upper covers the lower portion of the upper in an area which is recessed in a depth corresponding to the thickness of the material of the top portion of the upper, said top portion of the upper is terminated on both sides by respective circular hinge lugs, which extend into corresponding laterally open recesses in the lower portion of the upper and are hinged

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to the lower portion of the upper by respective rivets, and a cover plate is secured to each rivet and flush with the surface of the boot and covers the annular gap between the edge of the laterally open recess in the lower portion of the upper. A tight joint is ensured because the top portion of the upper covers an area of the lower portion, and cover plates cover the rivets, which are used as hinge pins, and the annular gaps between the hinge lugs and the edges of the laterally open recesses. A substantially smooth surface of the boot is ensured in that area of the lower portion of the upper which is covered by the top portion is correspondingly recessed and the hinge lugs of the top portion extend into laterally open recesses in the lower portion and are covered by cover plates which are countersunk and flush with the surface of the boot.

In a development of the invention, the rivet consists of a hollow rivet and has a head forming the cover plate. With these rivets, the cover plates and the rivets used as hinge pins can be applied jointly and without difficulty. Besides, reliable protection is afforded against an ingress of water into the boot between the cover plate and the rivet.

An embodiment of the invention is shown by way of example on the accompanying drawing, in which

FIG. 1 is a simplified diagrammatic elevation showing a skiing boot as viewed from the inner side of the boot, the fasteners being omitted.

FIG. 2 is a similar view showing the lower portion of the upper of said boot.

FIG. 3 is an enlarged fragmentary sectional view taken on line III—III in FIG. 1.

The upper of the skiing boot which is shown comprises a lower portion 1. Said lower portion consists preferably of compacted polyurethane foam and is provided with an integrally injection-molded sole 2. That area 4 of the lower portion 1 of the upper which is covered by the top portion 3 of the upper is recessed in a depth corresponding to the thickness of the material of the upper. The top portion 3 of the upper is terminated on both sides by respective circular hinge lugs 5, which extend into respective laterally open recesses 6 of the lower portion of the upper. A cover plate 8 held by a rivet 7 covers the hinge lug 5 and is flush with the surface 9 of the boot. The rivet serves at the same time as a hinge pin between the top and lower portions of the upper. This arrangement results in a smooth surface 9 of the boot and a watertight joint between the top portion 3 and lower portion 1 of the upper.

What is claimed is:

1. A sports boot, which comprises:

an upper having a lower portion and a top portion, said lower portion having on each side an area which is recessed on the outside in a depth corresponding to the thickness of said top portion and an external recess which is laterally open toward said area, said top portion covering said area on each side and having on each side of the boot a circular hinge lug which extends into said external recess and defines a circumferential gap therewith, two coaxial rivets arranged to be substantially disposed on the axis of the ankle joint of a foot contained in said boot, each of said rivets pivotally connecting one of said lugs to said lower portion, and two cover plates, each of which is secured to one of said rivets and flush with the surface of said boot

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and covers the adjacent one of said circumferential gaps.

2. A sports boot as set forth in claim 1, which constitutes a skiing boot.

3. A sports boot as set forth in claim 1, in which said rivets are hollow and have each a head forming one of said cover plates.

4. A sports boot as set forth in claim 1, which comprises means arranged to limit the pivotal movement of said top portion relative to the upper portion of said upper about said rivets.

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