

Jan. 20, 1970

P. LÖLLMANN ET AL

3,490,156

SPORTS FOOTWEAR

Filed Sept. 13, 1968

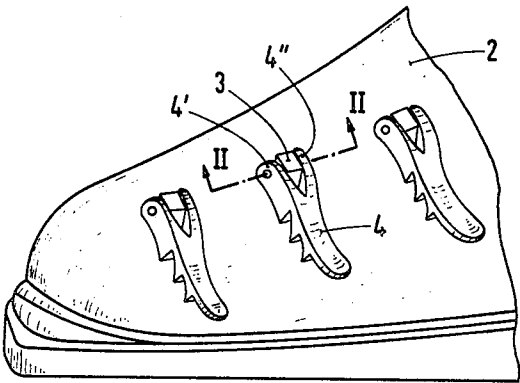


FIG. 1

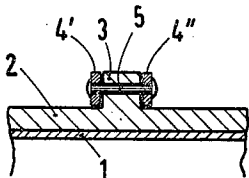


FIG. 2

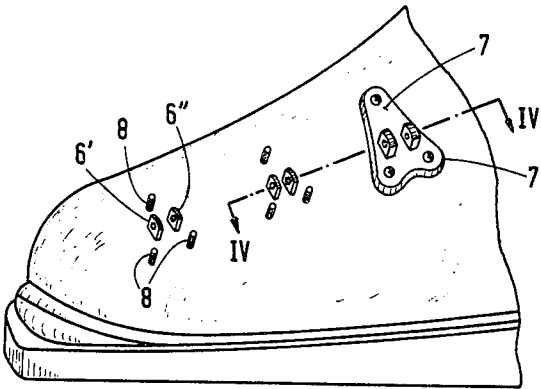


FIG. 3

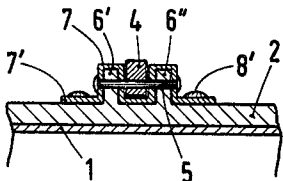


FIG. 5

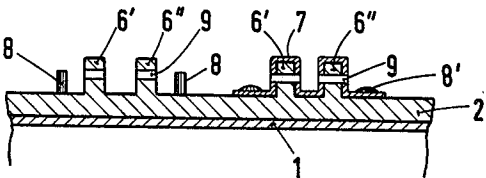


FIG. 4

INVENTORS:

Paul Löllmann
Rudolf Stöhr

BY

Spencer & Kaye
Attorneys

1

3,490,156

SPORTS FOOTWEAR

Paul Löllmann and Rudolf Stöhr, Tuttlingen, Germany,
assignors to Rieker & Co., Tuttlingen, Germany

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1,685,712

Int. Cl. A43b 5/00, 5/04, 23/00

U.S. Cl. 36—2.5

4 Claims

ABSTRACT OF THE DISCLOSURE

The specification describes ski-boots in which the upper is cast from a synthetic plastics material or rubber and which is provided with closure flaps, which may be adjustably secured in place by pivoted tension lever fastenings mounted on the upper. Upstanding bearing blocks are cast integral with the upper to pivot such levers thereto.

The invention relates to sports footwear, such as ski-boots, having an upper which is formed as a cast body and consists of synthetic plastics material or rubber and having advantageously widely adjustable tension lever fastenings for holding together the closure flaps of the upper.

With such tension lever fastenings to draw member cooperates with the tension lever, the draw member being held on a different closure flap from that carrying the tension lever bearing. The wide adjustability of the fastenings can be achieved by teeth formed on the tension lever, the draw member being adapted to be engaged at will in the indentations thereof.

In the known tension lever fastenings, the tension lever bearing forms a component which is separate from the upper and which is fixed on the latter by riveting or the like. The fitting of the tension lever bearing on the upper is comparatively difficult, and several such fastenings and thus also several tension lever bearings are provided on a ski-boot, and these each have to be separately adjusted.

According to the present invention, there is provided sports footwear such as a ski-boot comprising a cast synthetic plastics material or rubber upper having closure flaps thereon, adjustable tension lever fastenings to hold together said closure flaps and integral bearing means cast into said upper to pivotally mount said tension lever fastenings.

The bearing means are thus formed at the time of producing the upper, so that the work formerly connected with the subsequent fitting of the bearing means is eliminated. The production of the sports boot according to the invention is advantageously effected by injection moulding.

In order to make sufficient rigid the bearing part which is arranged on the upper and which, like the latter, consists of rubber or synthetic plastics material, the bearing means may consist of a single block, for each tension lever fastening, the latter including a bifurcated end with each block being located between the forks thereof. By this means, a comparatively strong accumulation of material for the bearing block is obtained which imparts the necessary strength to the latter. With the known tension lever fastenings, the bearing for the lever arranged on the upper is formed by two blocks arranged spaced from one another and accommodating the tension lever between them. If such a construction of the bearing is also to be used according to the invention, then caps can be fitted on to the bearing blocks, said caps stabilising the blocks against any bending if the bending strength of said blocks should prove to be insufficient.

2

The bearing holes necessary for inserting the pivot pin of the tension lever are made in the blocks after the boot has been removed from the mould and this does not involve any appreciable expense.

In order that the invention may more readily be understood, the following description is given, merely by way of example, reference being made to the accompanying drawing, in which:

FIGURE 1 is a fragmentary perspective view of the front portion of one embodiment of sports boot according to the invention;

FIGURE 2 is a section on the line II—II of FIGURE 1;

FIGURE 3 is a view, similar to FIGURE 1, of a second embodiment;

FIGURE 4 is a section on the line IV—IV of FIGURE 3; and

FIGURE 5 is a view similar to a portion of FIGURE 4 and after fitting the tension lever.

With the sports boot according to the invention, the bearing parts for the tension lever are cast on to the upper 2, which consists of synthetic plastics material or rubber and beneath which is a lining 1, and are thus made integral with said upper. In the embodiment according to FIGURES 1 and 2, the bearing part arranged on the upper 2 is formed by a single block 3, which represents a comparatively large accumulation of material, so that generally a separate stiffening or reinforcing of the bearing blocks is unnecessary. One end of each tension lever 4 is bifurcated, the forks 4', 4'' which are thereby formed bridge the bearing block 3 and accommodate the ends of pivot pins 5.

In the embodiment of FIGURES 3 to 5, the bearing for each tension lever is cast on to the upper 2 and is formed by a pair of bearing blocks 6', 6''. Introduced between the blocks of a pair is the end of the tension lever 4, which in this case is not forked, after the blocks have been provided with holes 9 for the passage of the pivot pin 5 (FIGURE 5). The bearing blocks 6', 6'' may have fitted thereon a part 7 which reinforces the blocks, so that caps enclosing the separate blocks are formed. In this case it has proved to be desirable also to form pins or studs 8 at the time of casting the upper 2, said studs being guided through apertures on lugs 7' of the part 7, which bear on the upper 2. The studs are thereafter flattened at the end by heat action, so that rivet heads 8' are formed, which secure the part 7 immovably on the upper 2.

We claim:

1. Sports footwear, such as ski-boot, comprising in combination:

- (a) a cast synthetic plastics material or rubber upper;
- (b) closure flaps to said upper;
- (c) integral bearing means cast to said upper; and
- (d) tension lever fastenings effective to hold together said closure flaps, said lever fastenings being mounted on said bearing means.

2. Sports footwear as claimed in claim 1, wherein the bearing means comprise a single block for each of said tension lever fastenings, wherein said tension lever fastenings each include a bifurcated end, providing two bearing forks and wherein the single block engages between said two bearing forks of a fastening.

3. Sports footwear as claimed in claim 1, wherein said bearing means are each provided with caps effective to stabilize said bearing means against distortion.

4. Sports footwear as claimed in claim 3, wherein upstanding studs are formed on said upper integral therewith, wherein said caps are provided with apertures through which said studs pass and wherein said studs

3,490,156

3

are formed with rivet heads effective to secure said caps
in place.

4

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ALFRED R. GUEST, Primary Examiner

U.S. Cl. X.R.

36—50

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,490,156

January 20, 1970

Paul Löllmann et al.

It is certified that error appears in the above identified patent and that said Letters Patent are hereby corrected as shown below:

In the heading to the printed specification, line 7;
"1,685,712" should read -- P 16 85 712.8 --.

Signed and sealed this 3rd day of November 1970.

(SEAL)

Attest:

Edward M. Fletcher, Jr.

Attesting Officer

WILLIAM E. SCHUYLER, JR.

Commissioner of Patents