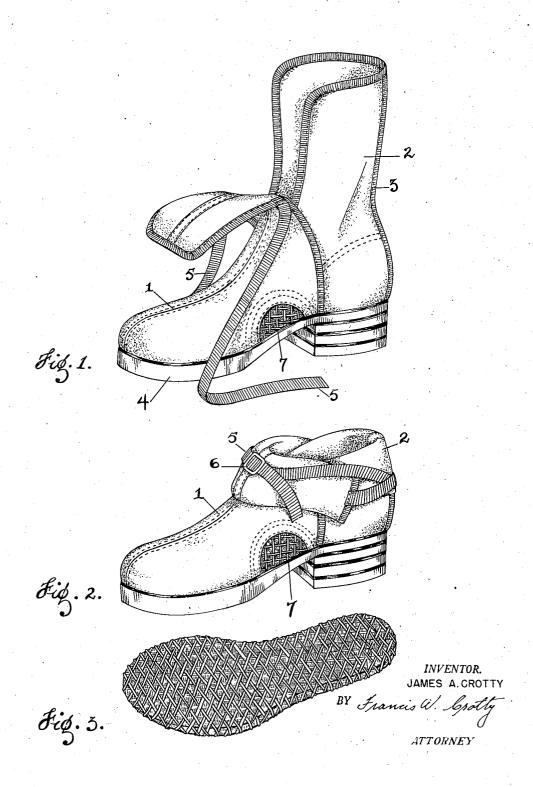
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HIKING BOOT

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## UNITED STATES PATENT OFFICE

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## **HIKING BOOT**

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This invention relates, in general, to a foot covering and, more particularly, to an improved hiking boot. While boots constructed in accordance with the invention have a very wide utility, they are particularly well suited for wear in jungle country, deserts, and similar places where boots of ordinary design quickly deteriorate.

Hiking boots of conventional design comprise an upper and a sole member. The upper is generally formed so as to partly enclose the lower 10 leg and calf of the wearer. A large bellows tongue along with the upper completely enclose the lower leg and calf of the wearer. While this sort of construction has the advantage of making the upper self-adjusting to the leg of the 15 wearer, it has several very decided disadvantages.

In the first place, boots worn in hot, damp country invariably become wet on the inside through seepage and other ways. Unless the boot 20 is thoroughly cleaned and aired thereafter, it becomes mildewed rapidly and thus deteriorates in such a short time that it is of little value. With the construction described above, which has been conventional, the boot can only be cleaned and 25 aired through the opening formed at the top of the upper. Obviously, this is limited so that it is almost impossible to give the boot a thorough cleaning.

Another disadvantage in the conventional hik- 30 ing boot is introduced by the lacings provided to hold the boot in place. These lacings thread through eyelets or hooks spaced along the sides of the upper. In tracking through heavy underbrush or similar places, twigs, briars, and the like  $\,\,35$ catch on the lacings, eyelets, or hooks and are a great source of annoyance.

A further disadvantage of the boots under consideration is that they must always be worn with the upper at full height. In hot desert country a high top boot is necessary for some purposes but for consant use, it is too hot and uncomfortable.

Finally, boots made as described above have the tongue is sewed to both sides of the upper. With this construction the boot holds both heat and moisture which causes great discomfort to the wearer in a relatively short time.

An object of this invention is to provide a hik- 50 ing boot which is not subject to the aforementioned disadvantages.

A further object of this invention is to provide an improved hiking boot which may be readily cleaned and throughly aired.

It is a still further object of this invention to provide a hiking boot of improved construction having means for ventilating the upper.

Another object of this invention is to provide an improved hiking boot which may be worn with the upper at full height or less than full height above the sole.

A hiking boot in accordance with this invention comprises an upper which is self-adjusting to the leg of the wearer and a sole member secured thereto. The upper is so constructed that it may be rolled back upon itself to any selected height above the sole member and means are provided for fastening the upper at the selected height. Ventilating inserts are included in the upper.

A complete understanding of the invention may be had from the following description which is to be read in the light of the appended drawing. In the drawing Fig. 1 is a perspective view of a hiking boot built in accordance with the invention; Fig. 2 is another view of the boot of Fig. 1 showing the upper rolled to half-size; and Fig. 3 is a view of an insole which may be employed with the boot.

Referring now more particularly to Fig. 1, there is disclosed a hiking boot embodying the concept of this invention. The boot comprises an upper which is self-adjusting to the leg of the wearer and a sole member secured thereto. The upper is made of a plurality of parts. In the embodiment under consideration two principal parts are used, a front part I and a rear part 2. The front part, which forms the vamp and front of the boot, consists of two pieces of semi-porous fabric joined together by means of a gypsy seam. The rear part, which serves as the back quarter of the boot, likewise consists of two pieces of semi-porous fabric sewed or assembled together. This rear seam is covered and protected by a binding 3 of fabric tape. A counter, not shown in the drawing, is provided in the rear quarter as is conventional in boot construction.

The sole member 4 is, preferably, a composite substantially no provision for ventilation since 45 one, consisting of a wear resistant outer portion and an inner portion of sponge-rubber composition adapted to expand during a vulcanizing process. The sole member also includes a heel of wear resistant material.

In fabricating the boot just described, the front part I and the rear part 2 are cut from suitable fabric. These parts are then sewed together at the bottom, just in front of the counter. In assembling the parts in this step, the front is 55 placed over the rear part and then they are stitched. The upper is now ready for the lasting operation, in which a suitable insole is applied, in well known manner.

Having thus completed the upper, the sole 4 is applied through a vulcanizing process during 5 which the sponge rubber material is forced into the interstices of the upper thereby to effect a strong bond between the sole and upper. Following this operation, a pair of straps 5 is sewed to the upper, one on each side of the front part 10 1. These straps are to be provided with a suitable fastening device 6, such as a tie or buckle.

Obviously, the front and rear parts are shaped and are of such height as to enclose the lower leg and calf of the wearer. In putting the boot 15 on, the front part of the upper is folded back as illustrated in Fig. 1 to permit inserting the foot. The rear part now partially encloses the leg of the wearer. The front part is then straightened up and placed against the leg of 20 the wearer and the straps tied. In this way the boot adjusts itself to the leg size of the wearer.

It will be clear that a boot of this construction lends itself to ready and thorough cleaning when that is required. To accomplish this, it is only 25 necessary to fold the front and rear parts back on themselves. Since these parts are sewed together only near the bottom of the boot, the upper may be folded down substantially to the sole member, permitting the foot portion to be 30 cleaned readily.

It will also be clear that the construction of the upper is such that the boot may be worn with the upper at full height above the sole member or at a lesser height. With the upper as shown in Fig. 1, when the straps 5 are fastened, the upper is at full height and the boot is said to be "full-size." If, now, the front and rear parts are rolled back upon themselves half way to the sole, the boot is converted into "halfsize." The straps, which preferably completely encircle the upper, may be fastened to hold the upper in this condition, as shown in Fig. 2. This permits the boot to be worn at half size which is a great convenience in hot places, such as 45 deserts. While the roll-back feature of the upper has been stressed for converting the boot to half size, it is obvious that intermediate sizes may be had quite readily by merely rolling the upper back, to the desired height. For greatest flex- 50 ibility in this respect, the straps 5 should be secured to the very top of the front part 1. This has a tendency, however, to cause buckling of parts I and 2 of the upper, which is undesirable. It has been found that the best location for the 55 straps is about half way up part 1. This permits quite some freedom in adjusting the height of the upper and yet prevents buckling. Further, it makes the boot feel most comfortable to the wearer.

In order to provide ventilation above that which is inherent in the construction, ventilating inserts 7 may be included in the upper. (Only one appears in the drawing. The other is located on the opposite side of the upper.) These 65 inserts comprise pieces of mesh material, preferably a plastic mesh. While ventilating the boot properly and permitting water to drain out in

the event that the wearer walks through wet or damp places, these inserts prevent stones or rubble from entering the boot and at the same time provide ventilation to the foot of the wearer.

A mesh insole of the type illustrated in Fig. 3 may be worn inside the boot. This insole is of a plastic material like the ventilating inserts shown in Figs. 1 and 2. The insole has the advantage that it is removable and may be taken out to facilitate cleaning out grubs, mildew, or any other foreign substance which might enter the boot.

While the upper in the described embodiment of this invention comprises a semi-porous fabric, it is clear that many different materials are equally suitable. For example, the upper may be cut from leather of all types as well as various types of fabric. The best material to be employed in any given case is dictated by the service for which the boot is to be used.

Likewise, the sole member may be made out of any wear-resisting material, and it may be applied to the upper by cementing or stitching, instead of through a vulcanizing process. The limitations are that a material must be selected which will provide a firm bond with the upper and which will give the sole high resistance to wear.

The described boot is subject to many modifications by those skilled in the art, without departing from the spirit of the invention. For this reason the scope of the invention is to be determined from the appended claims.

What is claimed is:

1. A hiking boot comprising a flexible upper which covers the lower leg and the calf of the wearer and a sole member secured thereto, said upper comprising two parts, a front and a rear part, said parts being secured together only substantially at the junction of said upper with said sole member whereby said upper may be folded back upon itself substantially to said sole member, and means for fastening said parts about the calf of the wearer.

2. A hiking boot comprising a flexible upper which is self adjusting to the leg of the wearer and sole member secured thereto, said upper comprising two parts, a front part and a rear part, said parts being secured together substantially at the junction of said upper with said sole member whereby said upper may be rolled back upon itself substantially to said sole member, and means for holding said upper at any selected height with reference to said sole member.

3. A hiking boot comprising a flexible upper which is self adjusting to the leg of the wearer and a sole member secured thereto, said upper comprising two parts, a front part and a rear part, said parts being secured together substantially at the junction of said upper with said sole member whereby said upper may be rolled back upon itself substantially to said sole member, and a pair of straps secured to either side of said front part for holding said upper at any selected height with reference to said sole member.

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