

FOOTWEAR WITH QUICK RELEASE FASTENER

FIELD OF THE INVENTION

The present invention is related to footwear. In particular, the present
5 invention is related to a footwear with a quick release fastener.

BACKGROUND OF THE INVENTION

Footwear such as army boots need to have flexibility, support and
comfort which is best provided by boots with shoe laces. However, shoe
10 laces are cumbersome to tie properly, especially for medium to long boots.
Traditional fastening mechanisms such as those commonly found in ski
boots and roller blade boots are also not suitable as they tend to be stiff and
inflexible. Footwear with quick fastening and releasing fasteners have been
described. US patent No. 5335401 describes a shoelace tightening and
15 locking device which includes a complicated spring bias to automatically
lock the laces in place upon being tightened to the desired tension.
However, a mechanism that requires spring biasing is prone to damage and
malfunctioning, and would not be suitable for footwear which must give both
comfort and good performance under extremely demanding conditions,
20 such as combat conditions. Footwear such as army boots need to give
support and comfort to the wearer, but at the same time allow the wearer to
quickly wear or remove the shoes.

OBJECT OF THE INVENTION

It is an object of the present invention to provide a footwear with a quick release mechanism.

5 SUMMARY OF THE INVENTION

The present invention provides a footwear with a detachable member, which is detachable from the main body of the footwear, such that the wearer can wear or take off the shoe by simply disengaging the detachable member.

In the preferred embodiment, the footwear comprises a sole and a top.

10 The top has a normal opening in front and two flanks to allow the wearer to insert his foot. One flank is similar to a typical footwear with shoelace attachment means for the threading of shoelaces. The detachable member is a flap of material having a fastener and at least one shoelace attachment means. The shoelace attachment means on the flap is adapted to accept the
15 corresponding threading of the shoelace. The flap is also provided with a fastener, which is adapted for engagement with a securing means provided on the second flank.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a front perspective view of a boot according to the present invention with the detachable flap in an engaged and locked position and shoelace indicated in dotted lines.

- 5 Figure 2 is a side perspective view of a boot according to the present invention with the detachable flap in an engaged position.

Figure 3 is a side perspective view of a boot according to the present invention with the detachable flap in a disengaged position.

10 DESCRIPTION OF THE INVENTION

According to Figure 1, the preferred embodiment of the present invention is shown as a boot with a top **20** and a sole **22**. The top has an opening **23**, which allows the wearer to insert his foot. The two flanks **24** and **26** are provided on the two sides of the opening. A tongue **27** may be provided
15 between the two flanks to cover the opening. Flank **24** is provided with a plurality of shoelace attachment means **28**. These may be hooks as shown in Figure 1, or may be holes in the flank for the threading of the shoelace.

Figure 2 shows the detachable flap **30** in an engaged position attached to flank **26**. Hooks **31** are provided as shoelace attachment means on the
20 edge of the detachable flap for the shoelace **32** as shown in dotted lines.

Figure 3 shows the detachable flap in a disengaged position, but still connected to the boot by the shoelace **32**. A securing means **33** is fixedly attached to flank **26**, and contains a cross-shaped lug member **34** which projects out. A switch member **35** is fixedly attached to the lug member **34**,
25 which allows the wearer to switch the lug member between the vertical

engagement position and the diagonal (shown in dotted position **36**) locking position. A fastener **37** is fixedly attached to detachable flap **30**, which contains a cross-shaped bracket **38**. The cross-shaped lug member is adapted for insertion into the cross-shaped bracket when the lug member is in the vertical position. When the lug member is switched to the diagonal position **36**, the bracket is locked and prevented from being detached. This securing means and the fastener is similar to the Buddy-lok from National Molding Corporation of New York, USA. Using the locking system as described here, a wearer would be able to thread in the shoelace when the detachable flap is in the locked position. The wearer can adjusted the shoelace to a comfortable tightness, and then tie the shoelace into a permanent knot. Thereafter, the boot may be taken off by simply rotating the switch member to the vertical position to allow the bracket to disengage. To put the boot back on, the wearer simply insert his foot into the boot, engage the bracket to the lug member in the vertical position, and then lock the fastener by rotating the switch member to a diagonal position.

While the present invention has been described particularly with references to Figure 1 to 3 with emphasis on a boot, it should be understood that the figures are for illustrations only, and should not be taken as limitation on the invention. In addition, it is clear that the method and apparatus of the present invention has utility in many applications where quick release is required. It is contemplated that many changes and modifications may be made by one of ordinary skill in the art without departing from the spirit and scope of the invention described.

Although the locking mechanism has been described as using the Buddy-lok , it is clear that many other kinds of locking mechanism such as

fasteners may be used, depending on the performance requirements of the footwear. For example, a simple Velcro fastener may be used, or a simple hook and brace system. A cap may be provided on these simple fasteners to ensure that the fastener does not detach itself unexpectedly. The shoelace attachment means may be hooks, rings or simple holes provided on the flap or the flank for threading the shoelace. The switch member is shown in Figure 3 as being provided on the external surface of flank 26, but may actually be provided on the interior surface of flank 26 for greater security.



1 CLAIMS

- 1 1. A footwear comprising :
- 2 a sole; and
- 3 a top having
- 4 an opening adapted for insertion of a wearer's foot;
- 5 a first flank and second flank on opposing sides of said opening,
- 6 said first flank having at least one shoelace attachment means,
- 7 and said second flank having a securing member;
- 8 a detachable member having a fastener and at least one
- 9 shoelace attachment means, said fastener adapted for
- 10 engagement with said securing member.
- 1 2. A footwear according to claim 1 wherein the securing member
- 2 comprises a lug member and the fastener is a corresponding bracket,
- 3 such that said lug member may be inserted into said bracket for
- 4 engagement.
- 1 3. A footwear according to claim 2 wherein the securing member is
- 2 further provided with a switch member fixedly attached to said lug
- 3 member, such that rotating said switch member causes the lug
- 4 member to be rotated into a locking position.
- 1 4. A footwear according to any of the preceding claims wherein the
- 2 detachable member is a flap.





- 1 5. A footwear according to any of the preceding claims wherein the
2 shoelace attachment means is a hook or a hole.
- 1 6. A footwear according to any of the preceding claims wherein the
2 opening is covered by a tongue.

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REPLACED