GRIPPING ATTACHMENT FOR BOOTS

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1 Claim. (Cl. 36—7.6)

This invention relates to quick detachable boot heel and sole grippers that are interconnected and associated in an adjustable manner.

One of the main objects of the invention is to provide a detachable boot heel and sole gripper of special construction that can be associated if desired in an adjustable interconnected manner with a detachable sole gripper.

Offered initially to hunters, mountain climbers and the outdoors fraternity, it was soon found that the use of the quick detachable foot secure grippers had spread to telephone, oil, electric and other corporations, the forestry service, police officers, the service branches of the United States and others.

The present invention is directed to certain modifications of a gripping surface, and also to an adjustable, interconnected sole gripper that may be quickly attached to the shoe and secured to the heel portion for additional gripping surface in very rugged terrain.

Another object of the invention is to provide additional gripping elements on the heel plate.

Yet another object of the invention is to provide a quickly attachable sole gripper that is interconnected in an adjustable manner with the heel plate.

Still another object of the invention is to provide a special arrangement of the spikes or cleats on the heel or sole plate to increase gripping and non-slip performance.

These and other objects and advantages of the present invention will become apparent to those skilled in the art upon consideration of the following detailed description of the preferred embodiment thereof, reference being had to the accompanying drawings, wherein:

FIGURE 1 is an elevational view in partial perspective, of the heel and sole grippers in useful position;

FIGURE 2 is a lower elevational view taken on the line 2—2 of FIGURE 1;

FIGURE 3 is a sectional view taken on the line 3—3 of FIGURE 1;

FIGURE 4 is a sectional view taken on the line 4—4 of FIGURE 1;

FIGURE 5 is a sectional view taken on the line 5—5 of FIGURE 2;

FIGURE 6 is a lower elevational view taken on the line 6—6 of FIGURE 1;

FIGURE 7 is a view taken on the line 7—7 of FIGURE 6;

FIGURE 8 is a view taken on the line 8—8 of FIGURE 5; and

FIGURE 9 is a view taken on the line 9—9 of FIGURE 2.

Referring now to the drawings, the heel gripping device includes a completely enveloping flexible heel and sole portion having an attachable strap over the shoe. The lower edge of the flexible portion is riveted at spaced points entirely around a heel plate. The heel plate has plural spaced flat ground-engaging sharp cleats or spikes. The construction heretofore described follows generally the disclosure in applicant's prior application Serial No. 205,912, filed on June 12, 1962, now abandoned.

Heel plate 18 has an upstanding rear heel engaging lug that is riveted to the flexible portion at 24. An additional rear cleat 26 riveted or otherwise secured to the heel plate at points 28 has longer spikes 30 with flat sides that attack the ground in a thin, knife-like manner. It is obvious that most of the shorter spikes on the heel plate are actual ground grippers while the spikes are longer and provide initial piercing, supplemental elements at the forward end of the plate, a second similar cleat being riveted or otherwise attached thereof to at 34. The cleat has similar longer, sharp spikes at the edge of the plate attacking the ground in a streamlined manner. The forward edge of the plate 18 has an angularly upturned edge 38 with a strap-attaching open inset portion 40 struck therefrom. The rectangular, open inset 40 has an intermediate strap hook 42 rising therein from the edge 38.

A separate shoe-attachable and interconnected sole gripping plate 44 has similar plural spaced spikes struck downwardly therefrom. The plate 44 has a toe strap 48 riveted at 50 to either side thereof as shown in FIGURE 6. The plate 44 has a supplemental forward cleat 52 riveted at 54 thereto in such manner that the longer, knife-like spikes 56 project therefrom in a streamlined ground engaging manner, rather than flatsides as occurs with the shorter spikes. A rear similar cleat 58 having longer spikes is riveted to the sole plate 44.

An interconnecting flexible strap 62 is riveted at 64 to the rear edge of the sole plate 44. The strap 62 is insertable in the open inset portion 40 and is adjustable with the heel plate by means of plural holes that are engageable by the hook 42.

The operation of the device is simple. The heel gripping portion may be used alone or it may be connected to the sole plate if additional gripping surface is required. The attachment of the toe gripper is quickly made and the connecting strap 62 is properly adjusted on the heel hook 42. The two units are fixedly secured to the boot or shoe and the additional knife-like and streamlined ground engaging spikes provide additional ground piercing and holding members that permit better performance of the flat shorter spikes on the plates.

While I have shown and described in considerable detail what I believe to be the preferred form of my invention, it will be understood by those skilled in the art that various changes may be made in the shape and arrangement of the several parts without departing from the broad scope of the invention as defined in the following claim:

1 claim:

A non-slipper boot attachment, comprising:

a metal heel plate having a plurality of laterally disposed depending ground gripping spikes, several longer spikes on the sides thereof disposed in a lengthwise knife edge manner, and an upturned forward heel supporting flange, said supporting flange being notched laterally with an upstanding intermediate hook;

a flexible member attached to the heel plate and adapted to completely surround the boot heel and boot heel upper;

means for detachable securing the flexible member across the boot instep;

a metal sole plate having a plurality of laterally disposed depending ground gripping spikes and several
lengthwise knife edge manner;
longer spikes on the sides thereof disposed in a
flexible boot toe surrounding member attached to the
sole plate; and
plural apertured strap secured to the sole plate and
adjustably attached to the heel plate by slideable
connection through said lateral slot and hook on the
heel supporting forward flange.

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