ABSTRACT

A universal guard assembly for the gaff of a climber, such as utilized by utility and telephone linemen. The guard assembly includes a telescopically adjustable clamp which is received on the leg iron of the climber, a generally cylindrical metal guard housing having a nonmetal, friction resistant insert which receives the pointed end of the climber gaff and a flexible, nonresilient strap which is secured at one and to the guard housing and releasably secured at the opposite end to the adjustable clamp.

11 Claims, 4 Drawing Figures
UNIVERSAL GAFF GUARD

FIELD OF THE INVENTION

Climbers are worn by "hikers" to aid in climbing telephone and utility poles and trees. The term "hiker" is used herein to identify all the various persons using climbers, including telephone and utility linemen, tree trimmers, etc. A climber includes a leg iron which is strapped against the inner calf of the hiker's leg, beneath the knee, and a stirrup which extends beneath the boot of the hiker, and is strapped around the hiker's ankle. The leg iron has a sharp pointed gaff which supports the stirrup as the hiker is climbing or descending a pole or tree. The safety of a hiker will therefore depend upon the sharpness of the climber's gaff, and gaff guards are required to protect the point when not in use.

DESCRIPTION OF THE PRIOR ART

A common form of commercially available climber gaff guard includes a hard cap which receives the pointed end of the gaff and a wire clamp which snaps on the leg iron to hold the cap in place. The guard is often knocked loose and lost when the hiker is walking over rough terrain, or the wire is bent, requiring the hiker to pry the clamp loose before climbing a utility or telephone pole. Another commercial form of gaff guard includes a plastic or hard rubber sleeve which is received over the pointed gaff and an integrally molded strap and clamp. These guards are often difficult to remove because the gaff may frictionally bind in the sleeve position and the pointed end of the gaff wears relatively quickly through the plastic or rubber sleeve, exposing the gaff and rendering the guard useless.

The difficulty of removing conventional gaff guards in emergency situations has resulted in a number of safety regulations which require a hiker to remove his gaff guards when he may be required to render assistance to an injured or unconscious hiker on a utility pole or tree, even when walking from one area to another. The time required to remove the gaff guards may be critical to a lineman who has been electrocuted, for example, and therefore the present commercial guards may constitute a safety hazard in such situations. Further, walking on an exposed climber gaff dulls the pointed end requiring constant attention, which may also create a safety hazard if the gaff is not sharpened.

The gaff or spur guards shown by the prior art generally provide a metal cap or guard which results in a metal-to-metal cap or guard which results in a metal-to-metal contact with the climber gaff. This is not considered satisfactory because the metal to metal contact dulls the gaff. Plastic gaff guards have not been found satisfactory because the gaff wears through the guard in a few weeks or months. Examples of the gaff guards shown by the prior art include the following U.S. Pat. Nos.: 2,296,074, 2,419,363, 2,497,710, 2,870,947.

SUMMARY OF THE INVENTION

The universal gaff guard assembly of this invention is particularly adapted to permit rapid removal of the climber gaff guard in the event of an emergency situation requiring the hiker to climb a utility pole, or the like, and provide better protection for the pointed end of the gaff. The guard retainer clamp in the preferred embodiment of the gaff guard assembly is also adjustable on the climber leg iron to accommodate the various commercial designs of climbers and compensate for wear of the gaff, providing a universally adaptable assembly. In the preferred embodiment, the clamp is telescopically received on the climber leg iron, permitting adjustment to accommodate the length of the gaff. A flexible, nonresilient strap is releasably secured to the clamp by a snap fastener or the like, which is secured adjacent the opposite end of the gaff guard. The disclosed embodiment of the gaff guard includes a generally cylindrical metal housing preferably steel and open at both ends, and a nonmetal, friction resistant insert which receives the pointed end of the gaff. The metal guard housing securely supports and retains the nonmetal insert and protects the climber gaff. The insert combines the advantages of the metal gaff guards shown by the prior art with the advantages of a plastic guard; the metal housing is preferably open at both ends to permit inspection and replacement of the insert if required.

The gaff guard of my invention is quickly and easily removed merely by unsnapping the strap from the adjustable clamp and pulling the guard from the climber gaff. The clamp is adjustable to accommodate the decrease in the length of the gaff as it is sharpened. The nonresilient strap reduces the danger of losing the gaff guard when the hiker is walking over rough terrain, where the gaff guard is important to protect the gaff and hiker from gaffing. Further, the gaff guard of my invention eliminates the spring members relied upon by the prior art to retain the guard on the gaff. The spring members in time lose their resilience and may become fouled in the undergrowth normally found in the working areas. The gaff therefore stays sharper, longer, saving the time and cost of resharpening and reduces the deaths and injury caused by the use of dull gaffs.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevation of a conventional climber in combination with the universal gaff guard assembly of this invention;
FIG. 2 is an end view of the embodiment of the climber shown in FIG. 1;
FIG. 3 is a top cross-sectional view of the gaff guard assembly shown in FIG. 2, in the direction of view arrows 3--3; and
FIG. 4 is a side cross-sectional view of the adjustable guard clamp shown in FIG. 2, in the direction of view arrows 4--4.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The embodiment of the climber assembly illustrated in FIGS. 1 and 2 includes a leg iron 20 which is contoured to the inner calf of a hiker's leg, as shown in phantom at 22 in FIG. 1, stirrup 24 which is received beneath and supports the foot portion 26 of the hiker's boot, and a gaff 28 which may be integral with the stirrup, or separate as shown. This embodiment of the leg iron is provided with a telescopic sleeve 30 which is secured to the leg iron by a cotter pin 32 or the like to accommodate variations in the length of a hiker's leg. The leg iron is normally strapped to the hiker's upper calf by a conventional leg strap 34 and a pad 36 is provided to protect the hiker's leg from chafing, etc., by the leg iron. The climber pad and leg strap may be secured as shown to the leg iron by various straps 38 to 40, respectively, and the leg strap 34 in this embodiment is provided with eyelets 42 and a buckle 44 to retain the strap in place. The stirrup is strapped to the hiker's ankle by a tongue and buckle 46 which is received through the stirrup ring or clamp 48. It will be understood that the climber illustrated is only one of several commercially available climbers which vary in detail. One important difference to the universal gaff guard of this invention is the size and shape of the climber gaff 28, which is longer in certain embodiments and may extend from the stirrup 24 at a greater angle than shown. The universal gaff guard of this invention is particularly adapted to protect the gaff in each of these designs, without modification.

The embodiment of the gaff guard assembly of this invention shown in FIGS. 1 to 4 includes an adjustable guard clamp 50, a gaff guard 52 and a strap 54 interconnecting the clamp and the guard, and retaining the guard on the climber gaff 28. The gaff guard 52 includes a tubular portion 56 preferably open at both ends as shown in FIG. 1, which receives and retains the nonmetal, friction resistant insert 58. The pointed end 60 of a climber gaff is normally tapered and triangular in cross section and therefore the socket 62 in the nonmetal insert receiving the end of the gaff is also preferably tapered and triangular in cross section, as shown in FIG. 3, to conform to the shape of the gaff. This embodiment of the gaff guard in-
What is claimed is:
1. A universal guard assembly for the gaff of a climber, comprising, in combination: an adjustable clamp member telescopically received on the leg iron of a climber including a releasable securement means securing the clamp member on the leg iron after telescopic adjustment, a gaff guard received over and substantially enclosing the pointed end of a climber gaff and a flexible, nonresilient strap secured adjacent one end to said gaff guard and releasably secured adjacent the opposite end to said adjustable clamp member.

2. The universal guard assembly defined in claim 1, characterized in that said gaff guard is a generally tubular metal housing having an open end receiving the pointed end of the climber gaff.

3. The universal guard assembly defined in claim 2, characterized in that said tubular metal housing is open at both ends and includes a friction resistant, nonmetal insert having a socket which receives the pointed end of the climber gaff, preventing metal-to-metal contact.

4. The universal guard assembly defined in claim 1, characterized in that said adjustable clamp member is generally C-shaped to permit telescopic adjustment of the clamp member on the leg iron and said releasable securement means is a threaded fastener threadably received in the clamp member, against the leg iron.

5. The universal guard assembly defined in claim 1, characterized in that said strap is releasably secured to the clamp member by a snap fastener, permitting rapid removal of the gaff guard.

6. A universal guard assembly for the gaff of a climber, comprising, in combination: a metal, generally tubular gaff guard housing, open at both ends, a friction resistant nonmetal insert, secured within said tubular housing, having a socket receiving and substantially enclosing the pointed end of a climber gaff, a clamp member secured to the leg iron of the climber and a strap secured adjacent one end to said clamp member and adjacent the opposite end to said gaff guard housing.

7. The universal guard assembly defined in claim 6, characterized in that said strap is flexible and nonresilient and said clamp member includes an adjustment means adapted to permit adjustment of the clamp on the leg iron of the climber.

8. The universal guard assembly defined in claim 6, characterized in that said clamp member includes a quick release securement means adapted to releasably secure said strap.

9. The universal guard assembly defined in claim 8, characterized in that said quick release securement means is a snap fastener.

10. The universal guard assembly defined in claim 6, characterized in that said clamp member is generally C-shaped and adapted to be telescopically received over the leg iron of a climber and includes a releasable securement means adapted to secure the clamp member on the leg iron after adjustment of the position of the clamp member.

11. The universal guard assembly defined in claim 6, characterized in that said gaff guard member includes a channel-shaped extension receiving said strap and adapted to overlie the climber gaff adjacent the pointed end.