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EXTENDABLE ROPE PROTECTING SLEEVE

The current application claims a priority to the U.S. Provisional Patent application Ser. No. 61/653,169 filed on May 30, 2012.

FIELD OF THE INVENTION

The present invention relates generally to a rock climbing accessory, more specifically, to a rope protecting sleeve that extends over the length of a climbing rope during use in order to prevent abrasive surfaces such as rocks, branches, and debris from fraying or weakening the climbing rope.

BACKGROUND OF THE INVENTION

Rock climbing is an activity that is both mentally and physically demanding. Climbers compete with themselves and their environment to reach the summits of a formation or other predefined goals. The sport tests a climber's endurance, agility, and strength while providing an element of danger, which although minimal if executed properly, requires the climber to exercise mental control to ensure completion of their goal. Once a climber reaches the summit or their set goal they can begin a controlled descent down the same rock face.

A controlled descent, commonly referred to as abseiling or rappelling, is a technique to descend down a mountain face, cliff, or slope that may pose a danger to the climber or individual if they attempt to descend the area without protective equipment. Abseiling or rappelling is commonly used in a variety of situations that include but are not limited to, climbing, canyoneering, caving, and rescue operations. The basic equipment for rappelling includes a climbing or rappelling rope, an anchor, a rappelling device, and a climbing harness. The climber is able to control their rappel by having their rope attached to an anchoring point and using a rappelling device to apply friction to the rope as they move down a surface. Unfortunately, the rappelling device is not the only thing that can cause friction to a climber's rope. The surface a climber is descending can have a plurality of rough or sharp points of contact that can potentially damage the climber's rope. These rough or sharp points of contact can reduce the ropes strength and potentially create a life threatening situation for the climber.

While there are several prior art that attempt to reduce abrasion from contacting surfaces on a climbing rope, most of the prior art are ineffective in use or are disadvantageous for descending a rock face. one prior art example is U.S. Pat. No. 7,325,575, A Rope and Webbing Protector, which describes a tubular protector that rolls around a section of a rope. While this prior art prevents direct contact to the section of rope covered by the apparatus, it is unable to protect the climbing rope multiple contact points during a descent. Another prior art example is U.S. Pat. No. 6,341,626, Flexible Protective Sleeve, which describes a protective sleeve that slides over a rope or similar tubular device and attaches itself through the use of an adhesive. While this prior art protects the portion of the rope from abrasive surfaces, the permanent/semi permanent attachment method limits the functionality of the particular rope during use.

It is therefore the object of the present invention to provide an apparatus that extends over an existing climbing rope providing a barrier that protects the climbing rope from fraying and weakening as a result of direct contact with damaging surfaces. The apparatus utilizes an extendable sleeve that is detachably engaged to a breakaway wrist strap in order to protect the climbing rope from damaging surfaces. The

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extendable sleeve functions as a barrier that prevents direct contact between the climbing rope and damaging surfaces. The breakaway wrist strap functions as the attachment means between the climber and the extendable sleeve that easily detaches from the extendable sleeve without a sudden jerk. The apparatus extends over the length of the climbing rope from a compressed state as the climber makes a descent.

BRIEF DESCRIPTIONS OF THE DRAWINGS

FIG. 1 is a perspective view displaying the extendable sleeve and the breakaway wrist strap detachable coupled as per the current embodiment of the present invention.

FIG. 2 is an enhanced view displaying the component distribution of the width adjuster mechanism and the breakaway recovery strap as per the current embodiment of the present invention.

FIG. 3 is a cross sectional view displaying the component distribution of the extendable sleeve in a compressed configuration as per the current embodiment of the present invention.

FIG. 4 is a perspective view displaying the breakaway wrist strap and the component distribution of the adjustable band, the strap fastener, and the second snap buckle in an open configuration as per the current embodiment of the present invention.

FIG. 5 is a perspective view displaying the breakaway wrist strap and the component distribution of the adjustable band, the strap fastener, and the second snap buckle in a closed configuration as per the current embodiment of the present invention.

FIG. 6 is a perspective view displaying the extendable sleeve compressed and partially covering the portions of the climbing rope per the current embodiment of the present invention.

FIG. 7 is a progression of FIG. 6 displaying the extendable sleeve covering a larger portion of the climbing rope as it extends as per the current embodiment of the present invention.

DETAIL DESCRIPTIONS OF THE INVENTION

All illustrations of the drawings are for the purpose of describing selected versions of the present invention and are not intended to limit the scope of the present invention.

Referencing FIG. 1, the present invention is an extendable rope protecting sleeve that extends over an existing climbing rope providing a barrier that protects the climbing rope from fraying and weakening as a result of direct contact with damaging surfaces. The extendable climbing rope comprises an extendable sleeve 1 and a breakaway wrist strap 17. The extendable sleeve 1 is a barrier that surrounds a climbing rope, protecting it from direct contact with a damaging surface. The extendable sleeve 1 protects the climbing rope during a descent by extending over portions of exposed rope as a climber makes a descent. The breakaway wrist strap 17 functions as an attachment point between a climber and the extendable sleeve 1. The breakaway wrist strap 17 provides the climber with a means of extending the extendable sleeve 1 over portions of exposed rope during their descent. The breakaway wrist strap 17 is provided with a detachable engagement with the extendable sleeve 1. The detachable engagement between the extendable sleeve 1 and the breakaway wrist strap 17 is provided as a safety feature that enables facilitated detachment from the apparatus that reduces the risk of entanglement. The detachable engagement between the extendable sleeve 1 and the breakaway wrist strap 17 are