POLE SAFETY ASSEMBLY

CROSS REFERENCE TO RELATED APPLICATIONS

The present application claims priority to Provisional Patent Application No. 61/173,241 filed on Apr. 28, 2009, having the same title herein and Provisional Application No. 61/208,351 filed on Feb. 24, 2009, having the title "Rope Positioning Device (RPD) and Attachment Tool" both of which are incorporated in their entirety herein.

BACKGROUND

Utility poles and other tall structures having devices such as utility services coupled high up require workers to access the devices for repairs and updates. Protecting workers from falling off utility poles, trees, towers and other structures is a challenging and sometimes complicated task. Traditional fall protection methods require using systems that are tailored to each application. Poles are climbed with a variety of different belts that cinch around the pole if the user falls. They require a climber to disconnect and reconnect around every obstruction in the climber's path which creates a fall risk. Ropes are often thrown over the limbs and structures while knots and hitches serve as rigging to support the workers weight. Furthermore, specialized equipment requires an abundance of skill and knowledge to inspect it and become proficient with using it safely.

For the reasons stated above and for other reasons stated below which will become apparent to those skilled in the art upon reading and understanding the present specification, there is a need in the art for an efficient and effective safety assembly that is used when climbing tall structures.

SUMMARY OF INVENTION

The above-mentioned problems of current systems are addressed by embodiments of the present invention and will be understood by reading and studying the following specification. The following summary is made by way of example and not by way of limitation. It is merely provided to aid the reader in understanding some of the aspects of the invention.

In one embodiment, a safety assembly that provides a lifeline for utility poles and other tall structures is provided. The safety assembly includes a tubular member and a positioning member. The tubular member has first and second openings to a passage. The passage is configured to receive a rope. The positioning member has a first end and second end. The first end of the positioning member is configured to be received in at least one of the first and second openings of the tubular member. The second end of the positioning member is configured to be coupled to a reaching member. With the use of the positioning member and the reaching member, the tubular member is positioned to engage the tall structure and the rope passing through the internal passage is used as a lifeline.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention can be more easily understood and further advantages and uses thereof more readily apparent, when considered in view of the detailed description and the following figures in which:

FIG. **1** is a front perspective view of a tubular member of one embodiment of the present invention;

FIG. **2** is a close up view of an end of the tubular member of FIG. **1**;

FIG. **3** is a front perspective view of a positioning member of one embodiment of the present invention;

FIG. **4** is a back view of the positioning member of FIG. **3** coupled to a tool head assembly of one embodiment of the present invention;

FIG. **5** illustrates an embodiment of a positioning member engaging a tubular member of the present invention;

FIG. **6** illustrates a positioning member coupled to a reaching member and engaged with a tubular member of one embodiment of the present invention;

FIG. **7** further illustrates a reaching member positioning a tubular member on a utility pole of one embodiment of the present invention;

FIG. **8** is a front view illustrating a tubular member positioned on a utility pole and a reaching member with a hook portion of one embodiment of the present invention;

FIG. **9** is a front-close up view of the hook portion of the reaching member received in a loop of a rope of one embodiment of the present invention;

FIG. **10** illustrates a connection of a rope to a pole of one embodiment of the present invention;

FIG. **11** illustrates a belay system of one embodiment of the present invention;

FIG. **12** illustrates a pole safety assembly in use of one embodiment of the present invention;

FIG. **13** is a close up view illustrating a rope grab in use with the pole safety assembly of one embodiment of the present invention;

FIG. **14** illustrates a pole safety assembly in use with a sternal connection of another embodiment of the present invention;

FIG. **15** illustrates a pole safety assembly in use with a belay system of another embodiment of the present invention;

FIG. **16** illustrates a pole safety assembly during a fall event of an embodiment of the present invention;

FIG. **17** illustrates the positioning of a tubular member on a utility pole in one embodiment of the present invention;

FIG. **18** illustrates another positioning of the tubular member on a utility pole of one embodiment of the present invention;

FIG. **19** illustrates yet another positioning of the tubular member on a utility pole of one embodiment of the present invention;

FIG. **20** illustrates another configuration of a pole safety assembly of one embodiment of the present invention; and

FIG. **21** illustrates a connection of the tubular member about a utility pole in relation to the configuration of the pole safety assembly of FIG. **20**.

In accordance with common practice, the various described features are not drawn to scale but are drawn to emphasize specific features relevant to the present invention. Reference characters denote like elements throughout Figures and text.

DETAILED DESCRIPTION

In the following detailed description, reference is made to the accompanying drawings, which form a part hereof, and in which is shown by way of illustration specific embodiments in which the inventions may be practiced. These embodiments are described in sufficient detail to enable those skilled in the art to practice the invention, and it is to be understood that other embodiments may be utilized and that mechanical changes may be made without departing from the spirit and scope of the present invention. The following detailed