



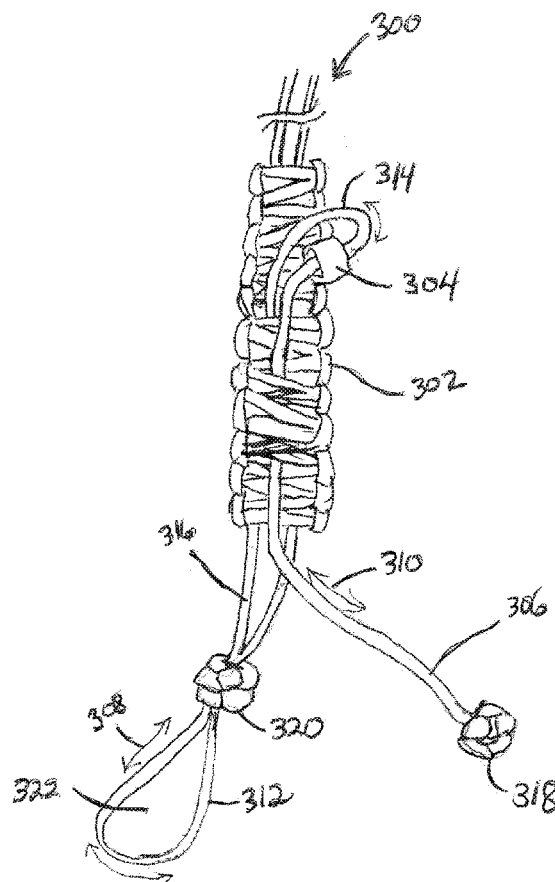
US 20170150804A1

(19) **United States**(12) **Patent Application Publication****Belzner et al.**(10) **Pub. No.: US 2017/0150804 A1**(43) **Pub. Date: Jun. 1, 2017**(54) **METHOD AND APPARATUS FOR AN
ADJUSTABLE HARNESS**(52) **U.S. Cl.**CPC *A45F 3/14* (2013.01); *A45F 5/02*
(2013.01); *A45F 2003/142* (2013.01)(71) Applicant: **5B Outdoors, LLC**, Apache Junction,
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(57)

ABSTRACT(73) Assignee: **5B Outdoors, LLC**, Apache Junction,
AZ (US)(21) Appl. No.: **15/356,625**(22) Filed: **Nov. 20, 2016****Related U.S. Application Data**(60) Provisional application No. 62/260,285, filed on Nov.
26, 2015.**Publication Classification**(51) **Int. Cl.***A45F 3/14* (2006.01)*A45F 5/02* (2006.01)

An adjustable harness is implemented by interweaving a cord throughout a woven portion of the harness to form a loop portion, an intermediate portion and an end portion. A length of the loop portion is selected by adjusting a length of the end portion. Once an appropriate length of the loop portion is selected, a locking mechanism attached to the intermediate portion ensures that the length of the loop portion remains fixed. A breakaway buckle may be attached to the adjustable harness and a carabiner may be attached to the breakaway buckle. In operation, a loop portion of the adjustable harness may be cinched down onto an accessory, such as a water bottle, and locked into place. A carabiner may then be attached to a user and the breakaway buckle may be used by the user to conveniently remove the accessory for use and then returned for storage.



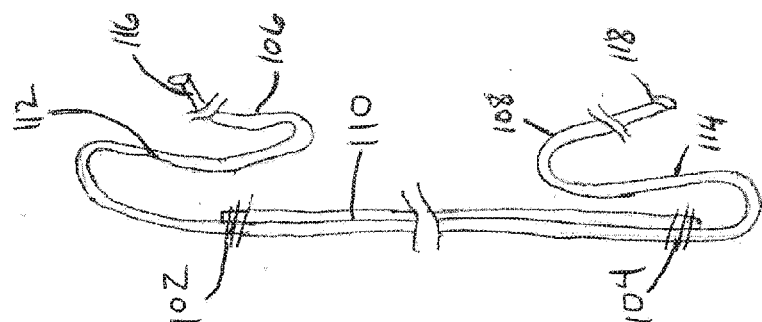


FIG. 1

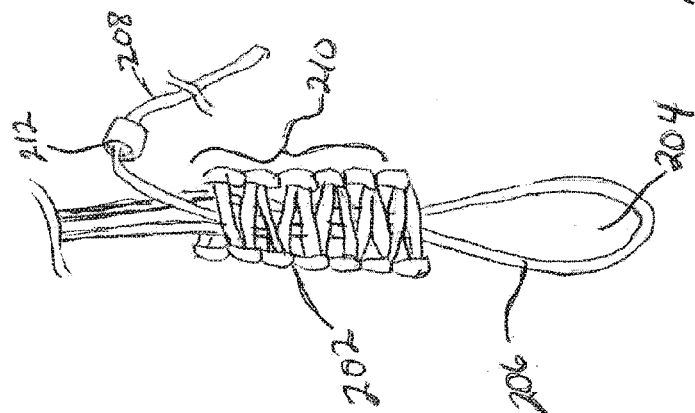


FIG. 2

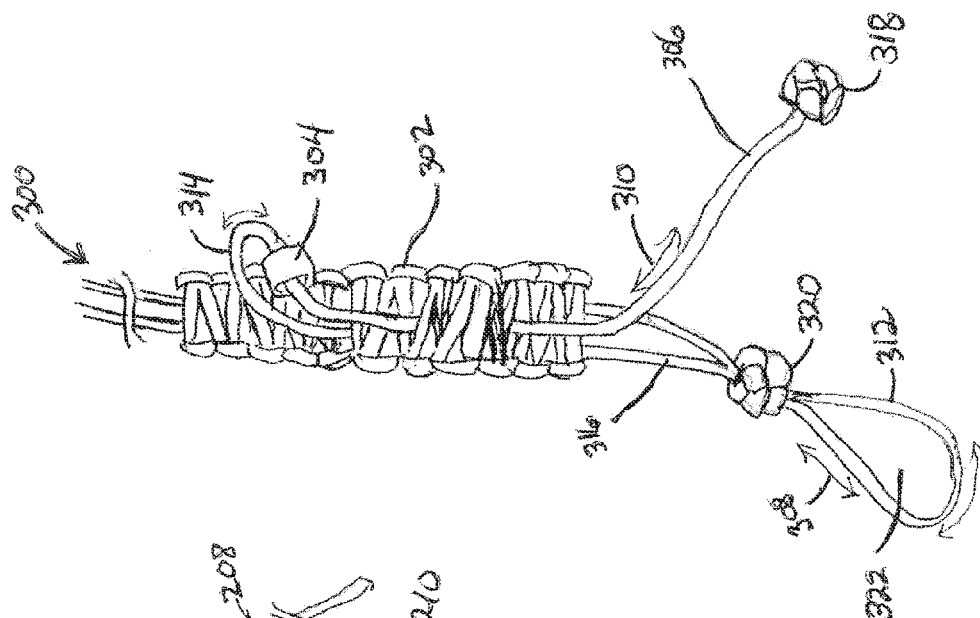


FIG. 3

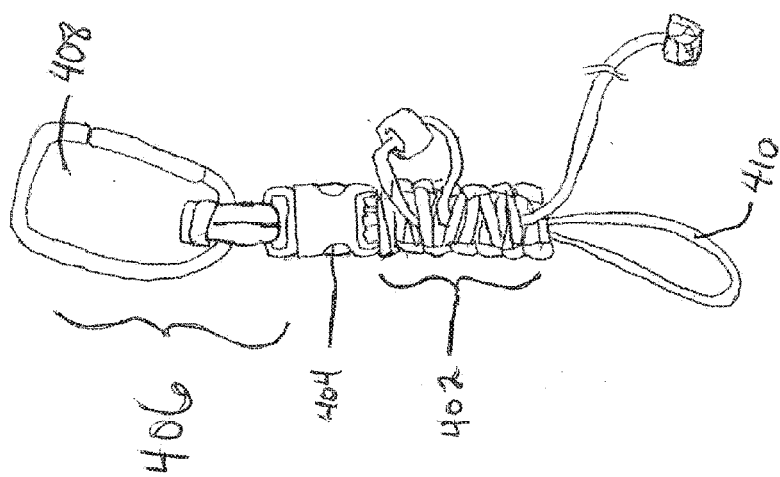


FIG. 4

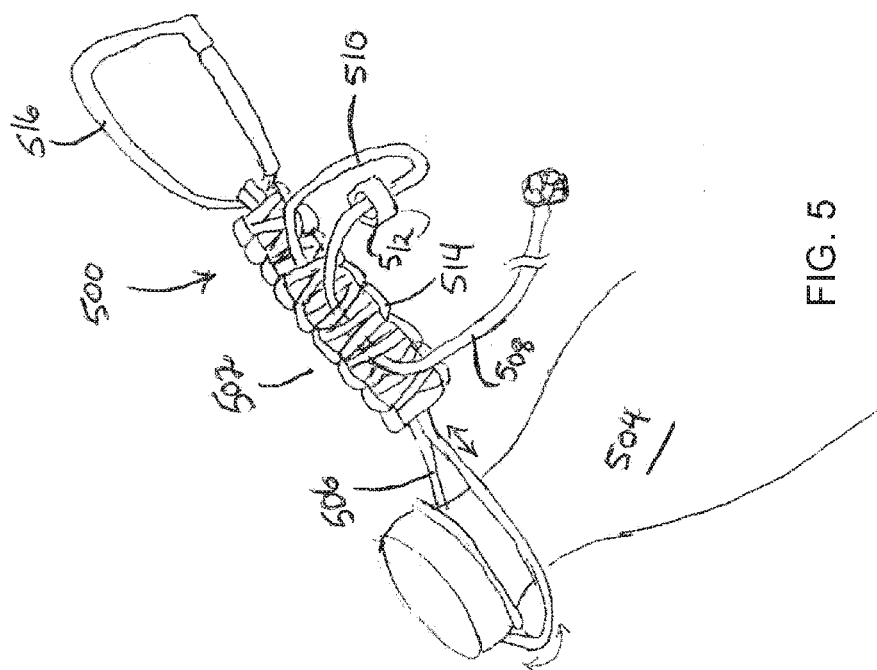


FIG. 5

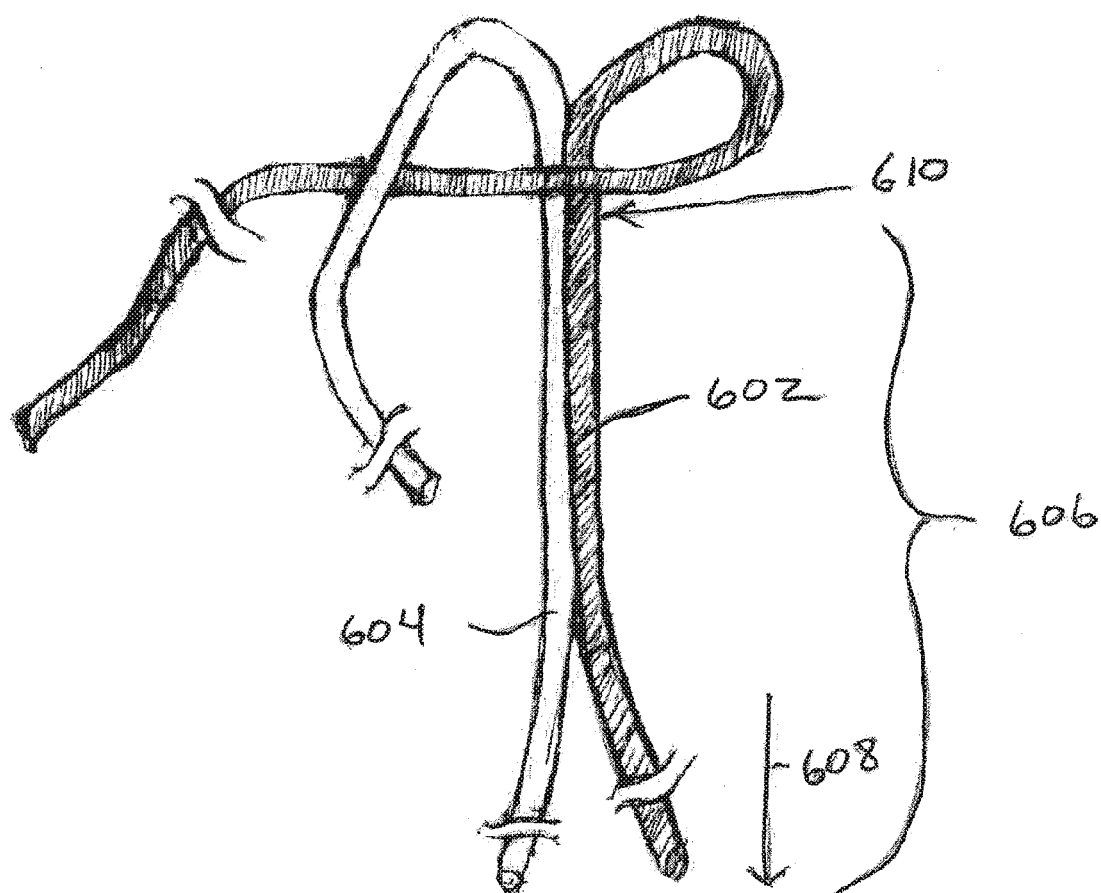


FIG. 6A

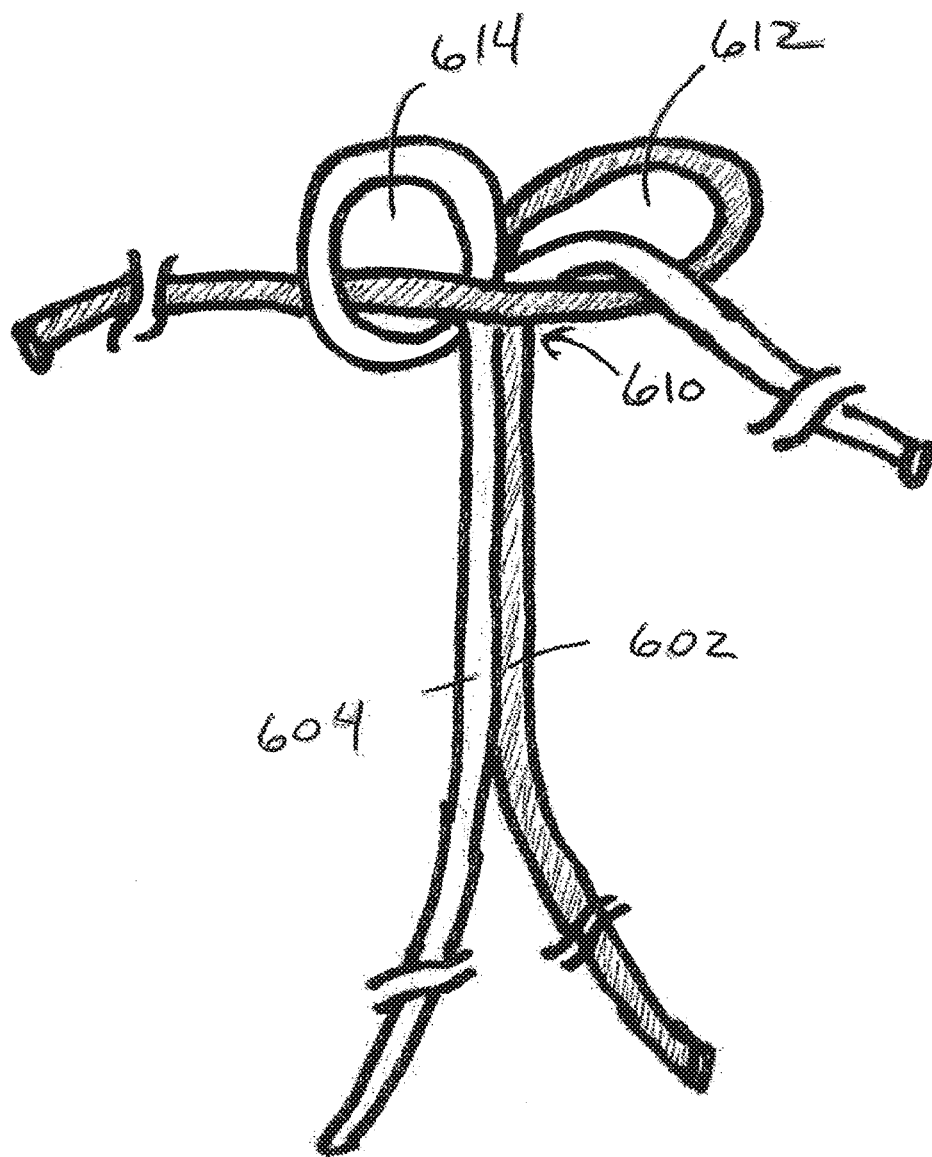


FIG. 6B

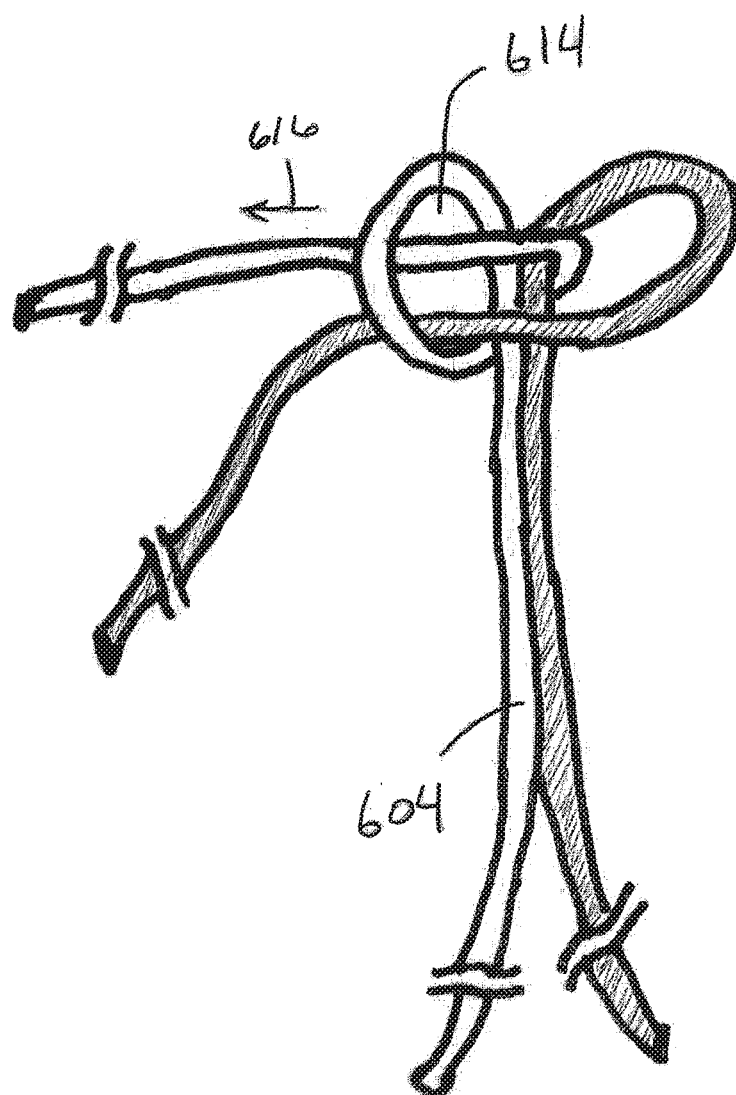


FIG. 6C

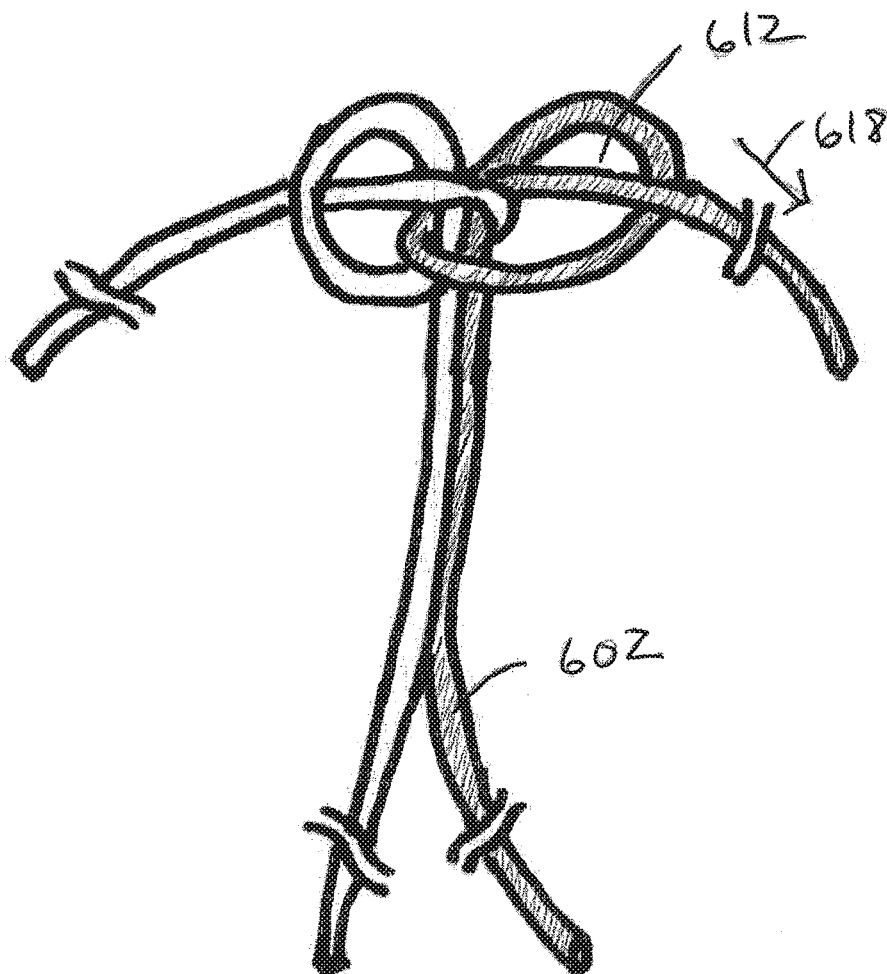


FIG. 6D

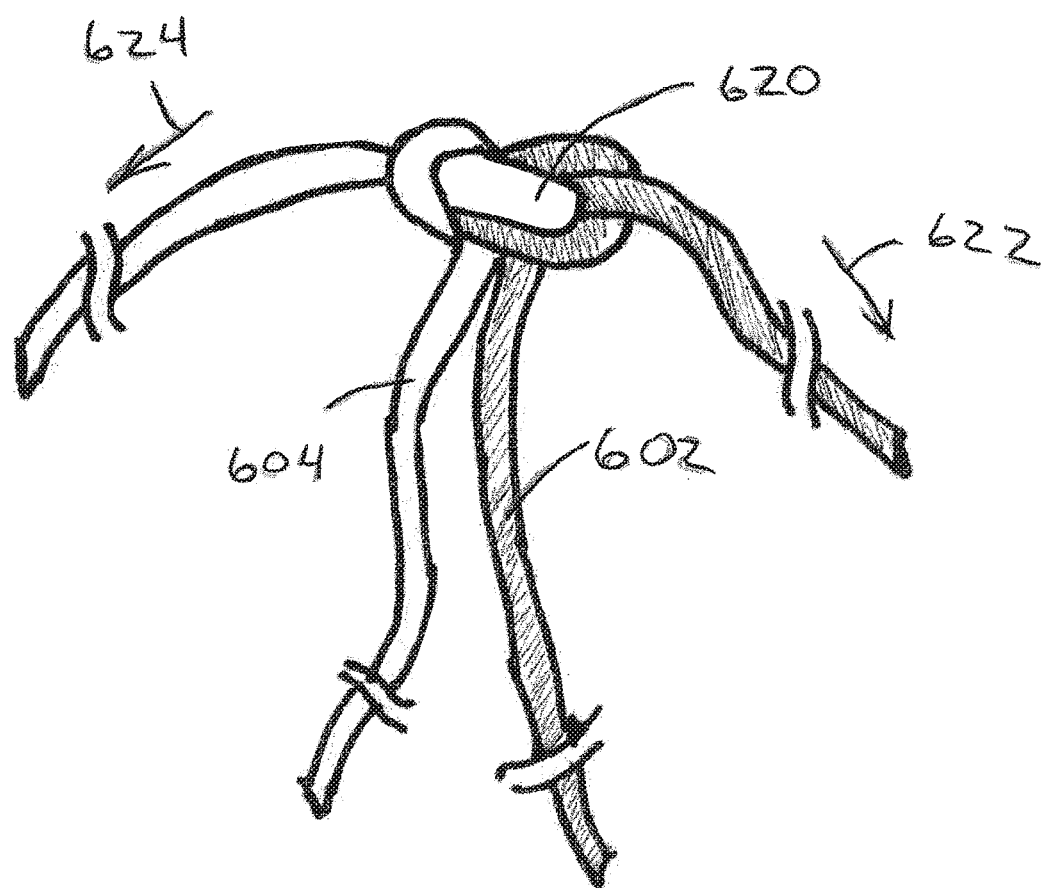


FIG. 6E

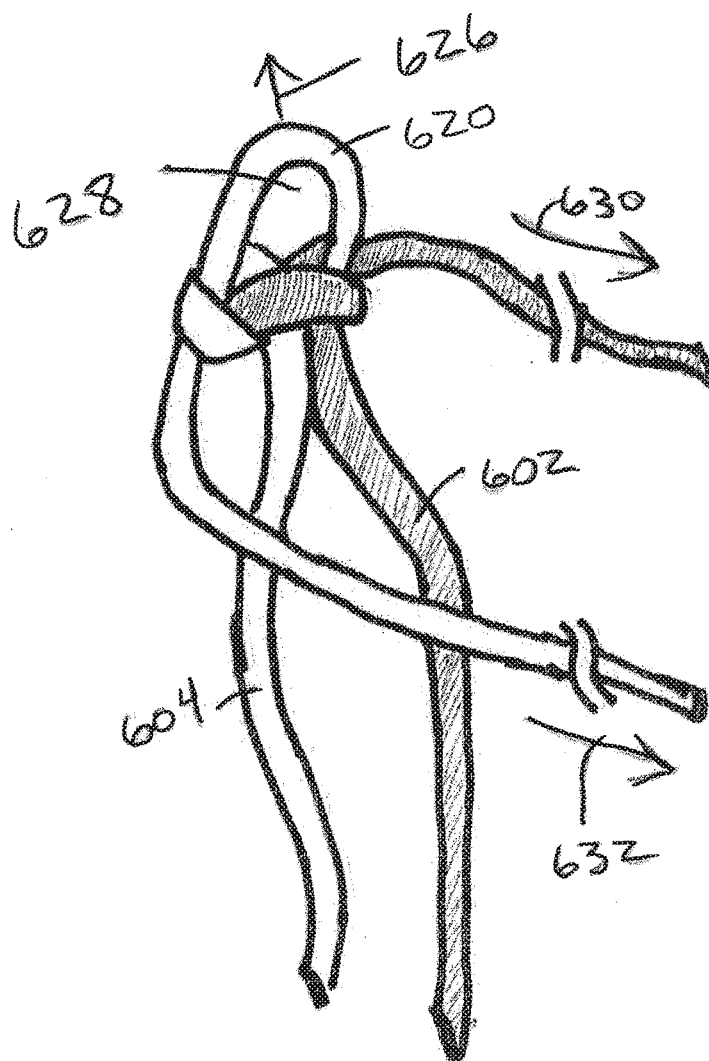


FIG. 6F

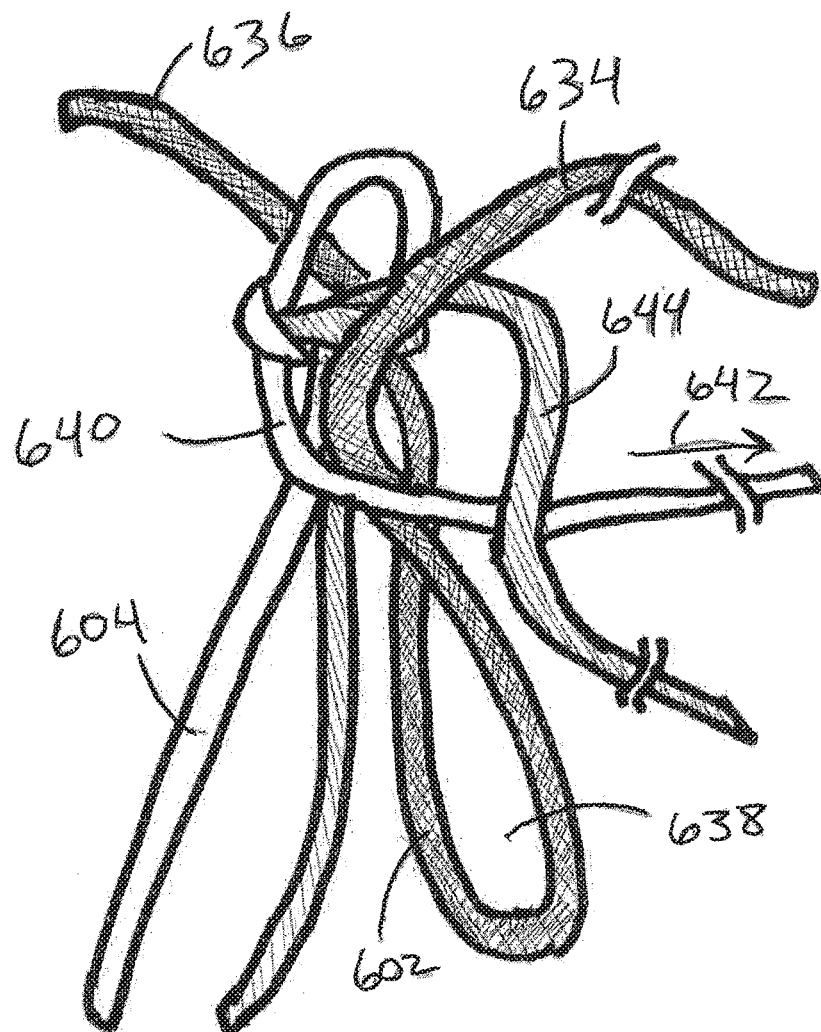


FIG. 6G

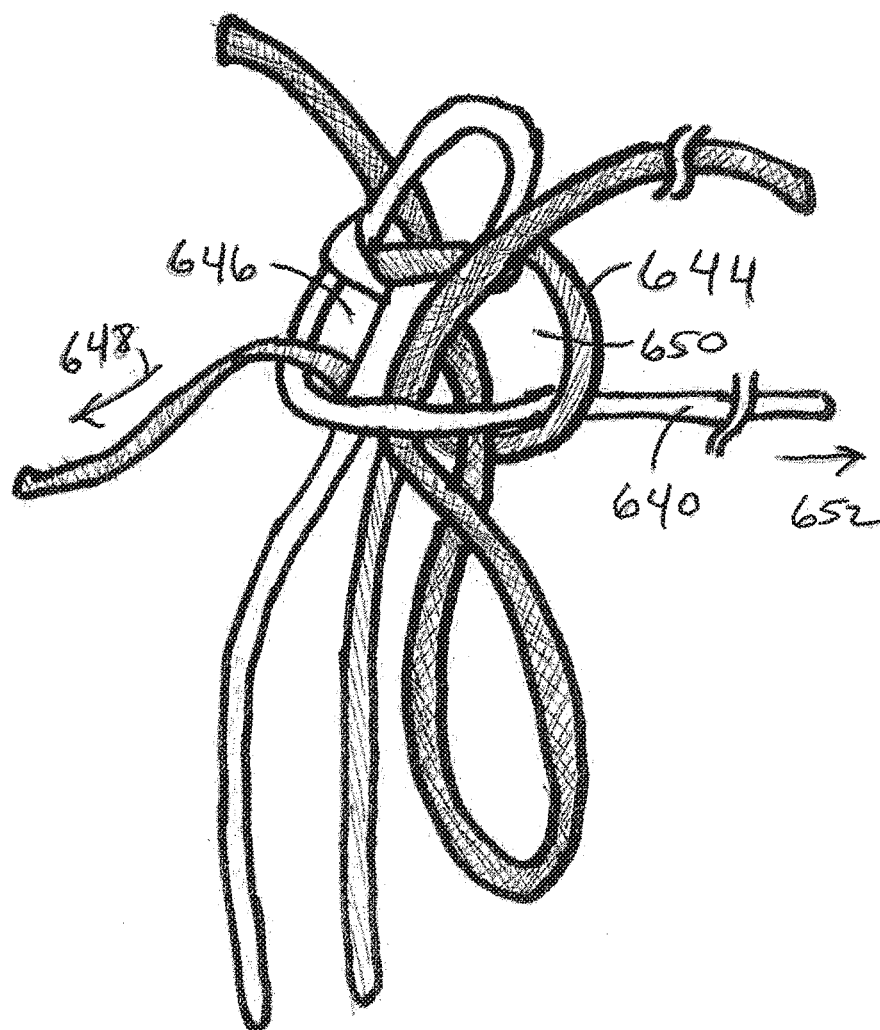


FIG. 6H

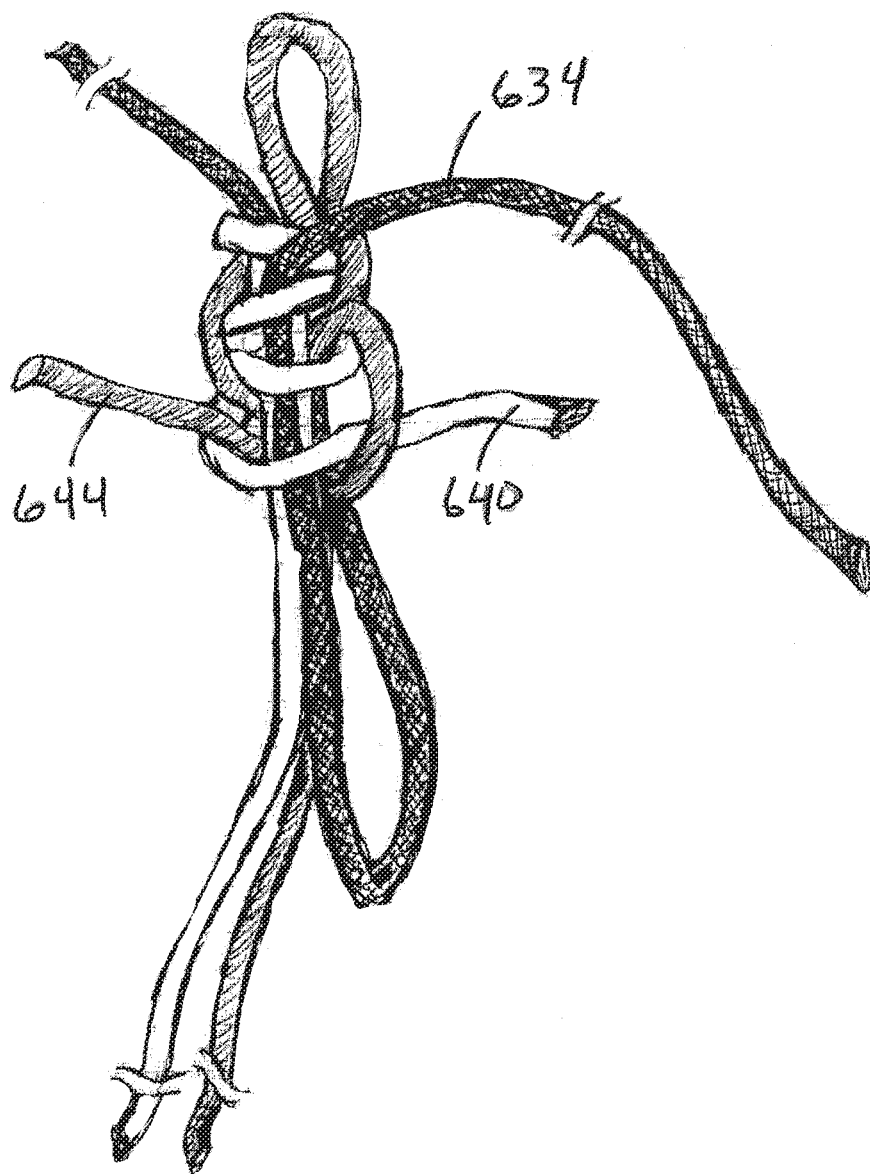


FIG. 6I

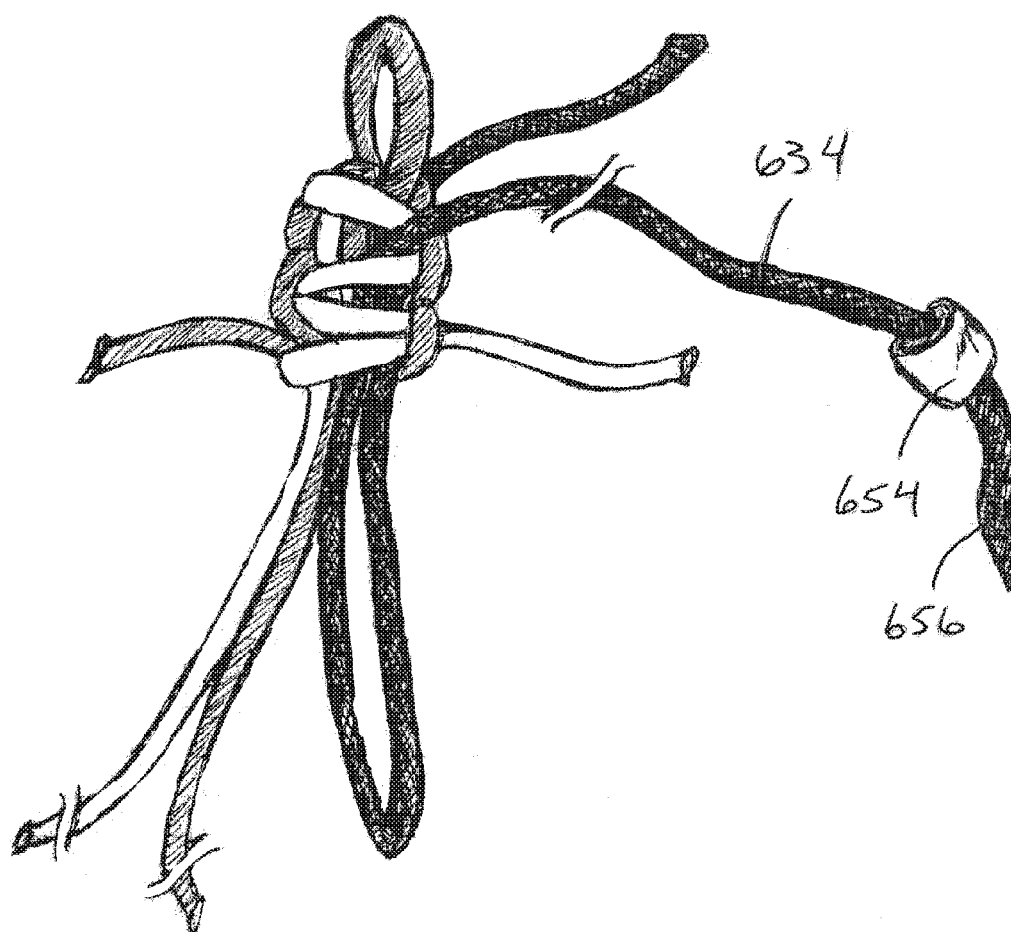


FIG. 6J

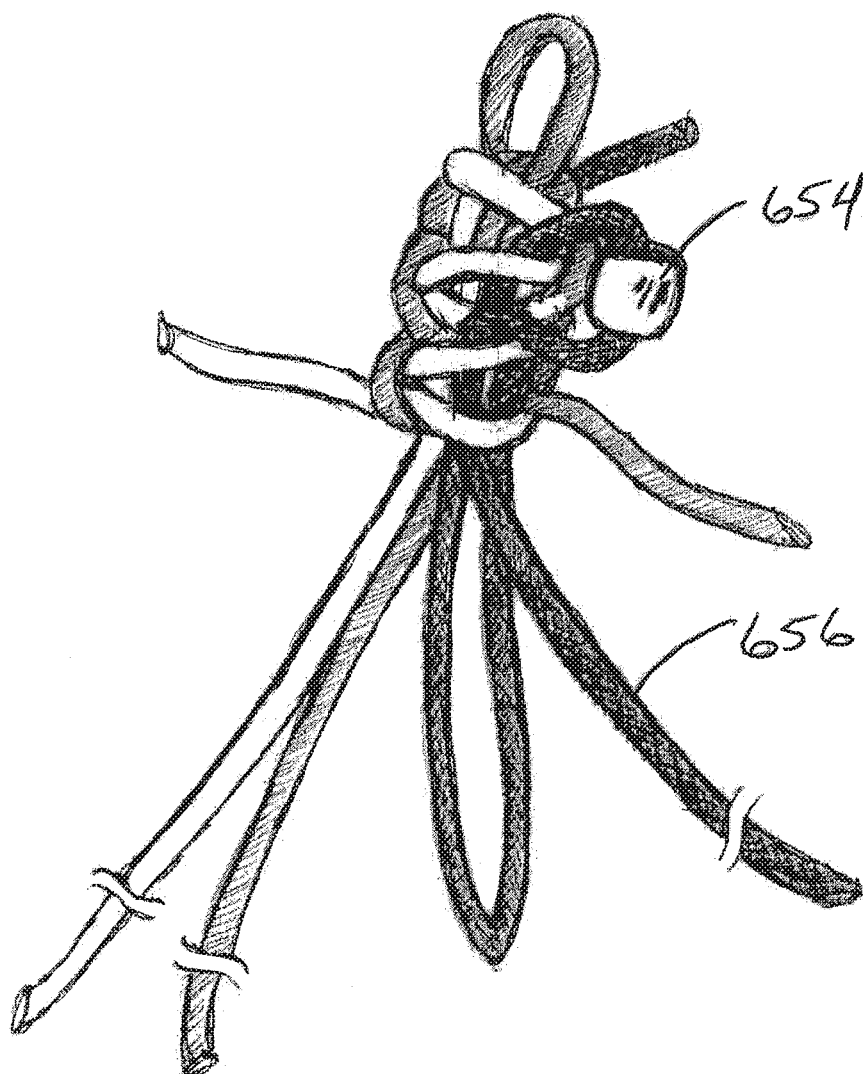


FIG. 6K

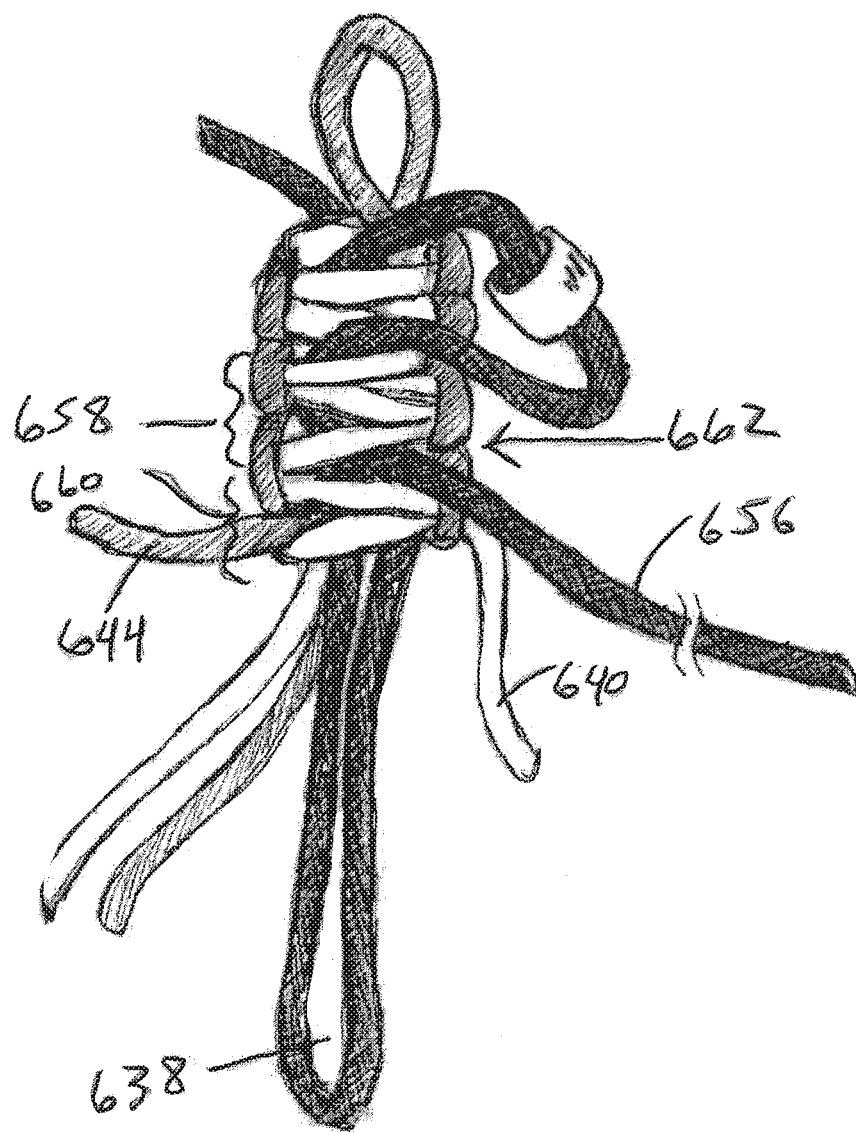


FIG. 6L

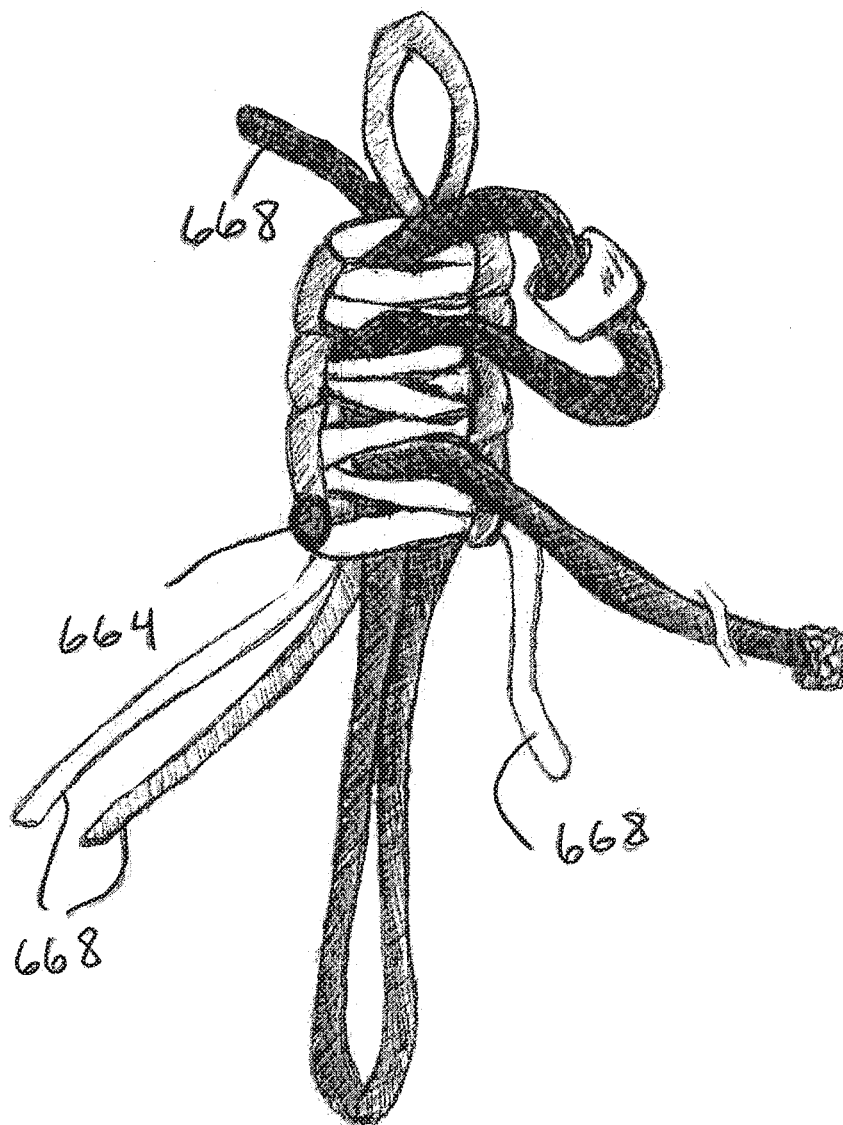


FIG. 6M

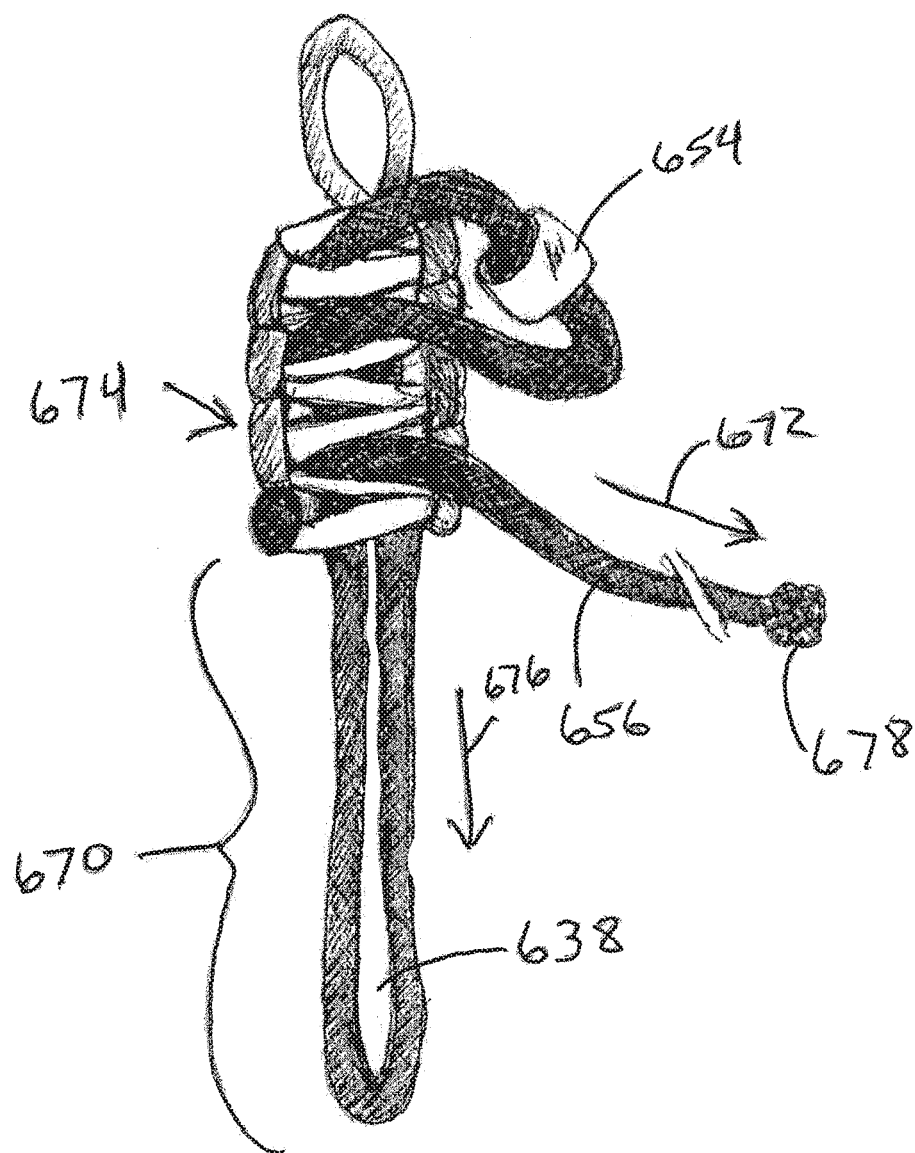


FIG. 6N

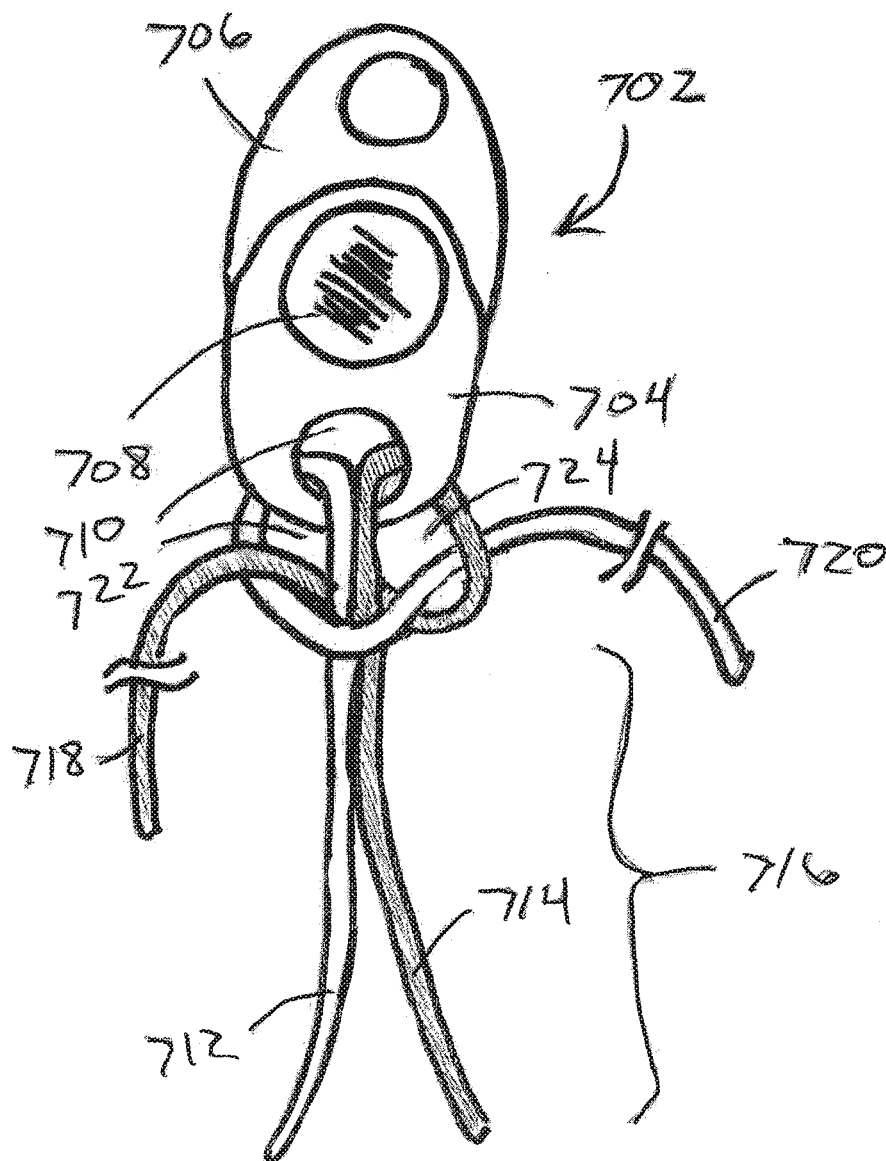


FIG. 7A

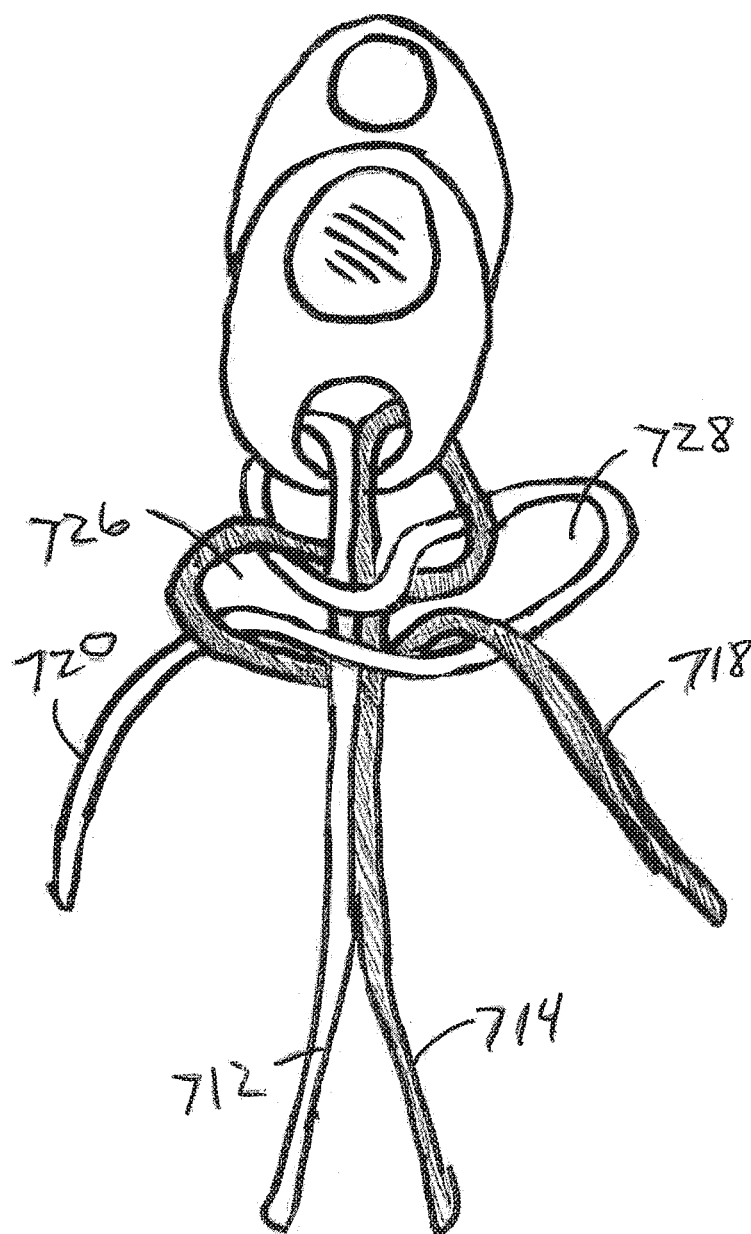


FIG. 7B

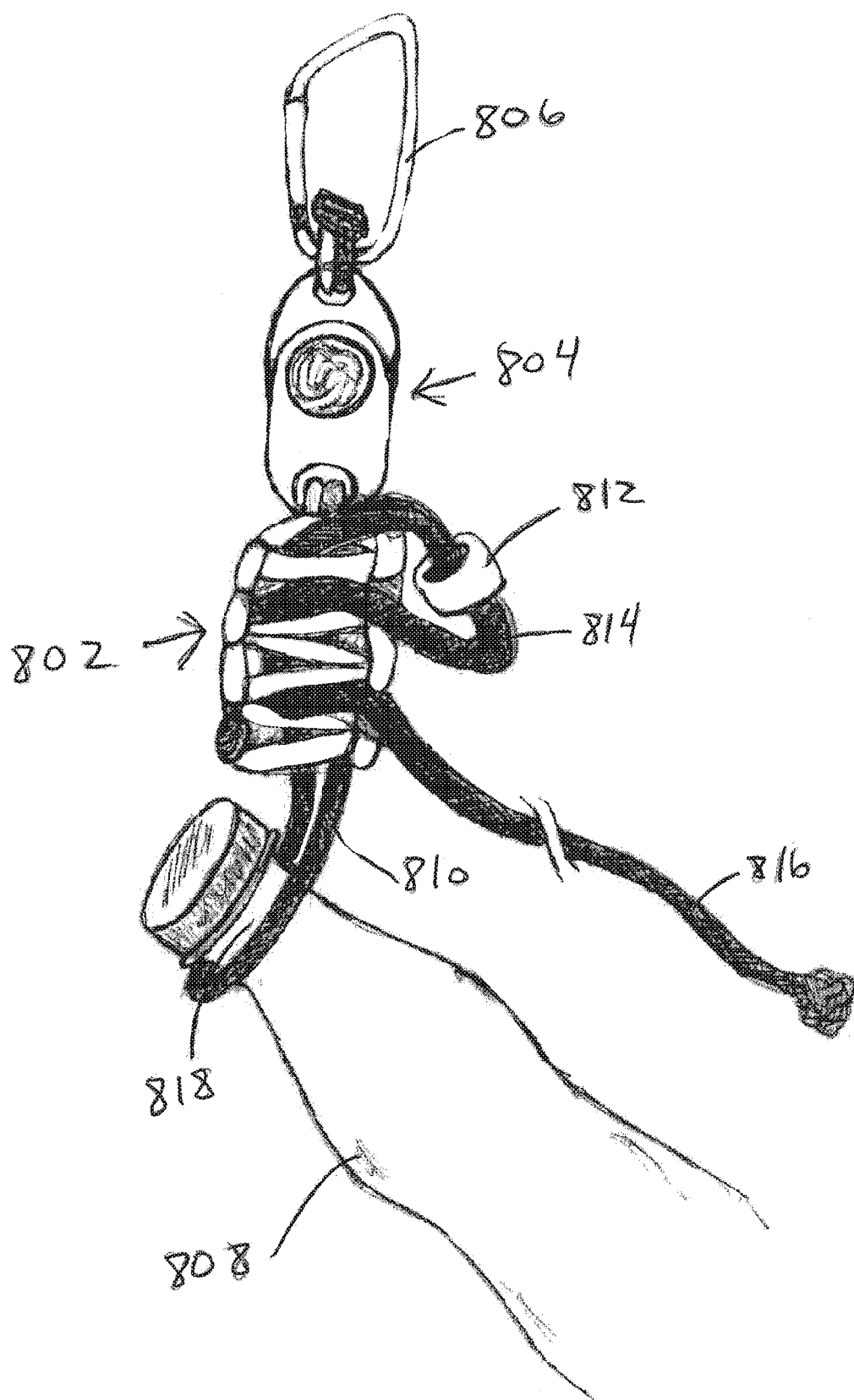


FIG. 8



FIG. 9A

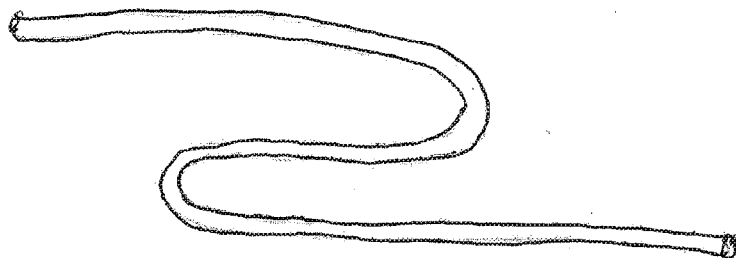


FIG. 9B

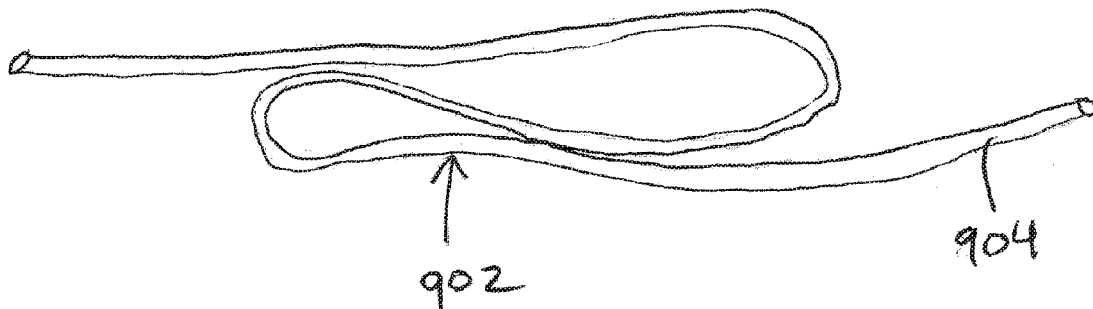


FIG. 9C

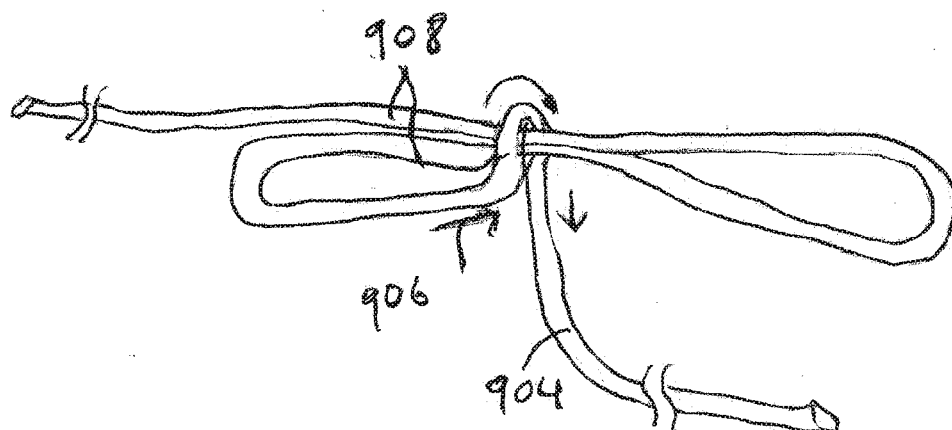


FIG. 9D

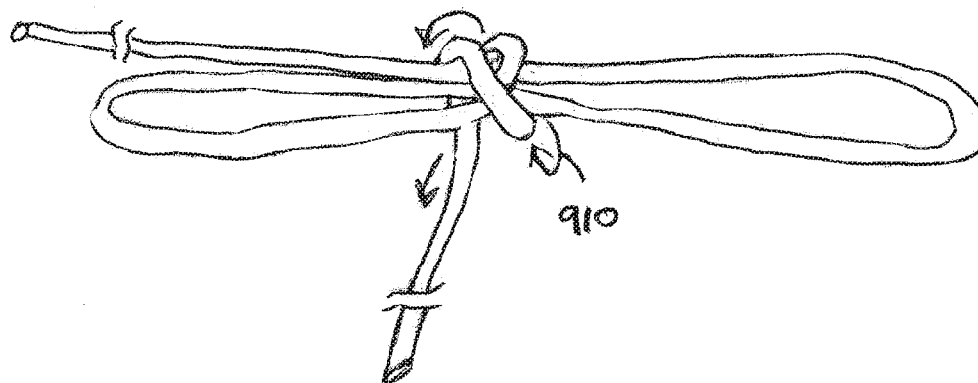


FIG. 9E

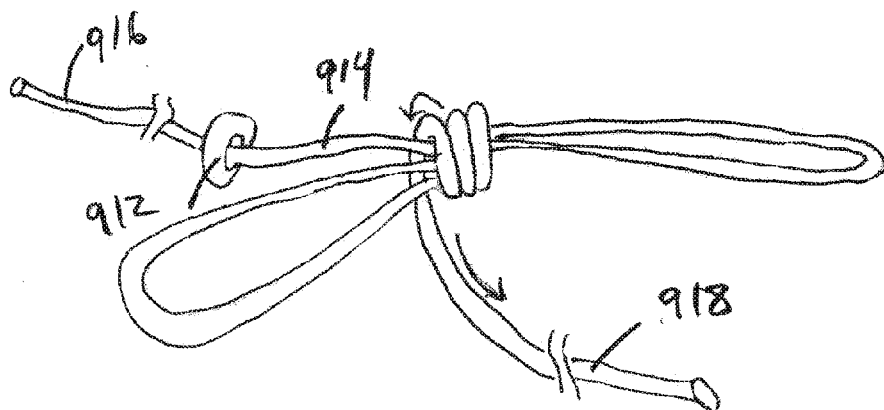


FIG. 9F

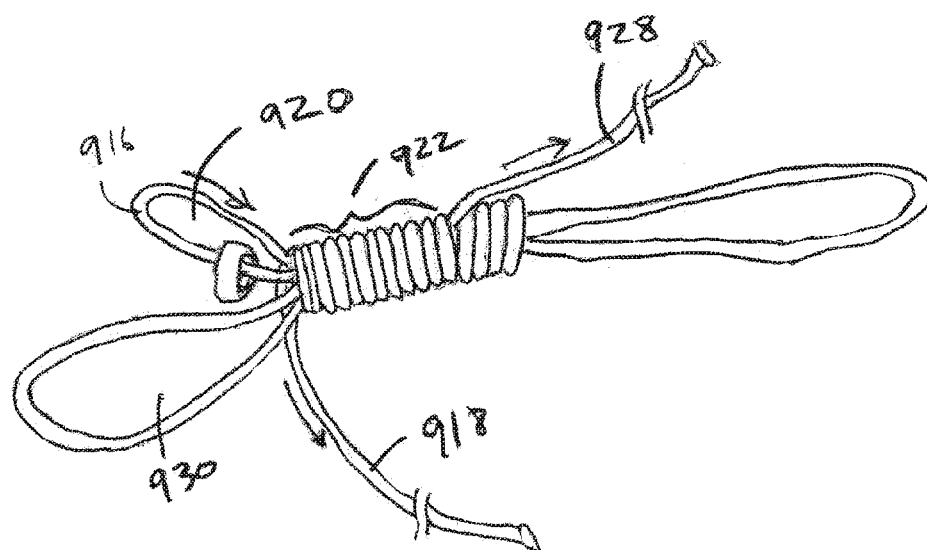


FIG. 9G

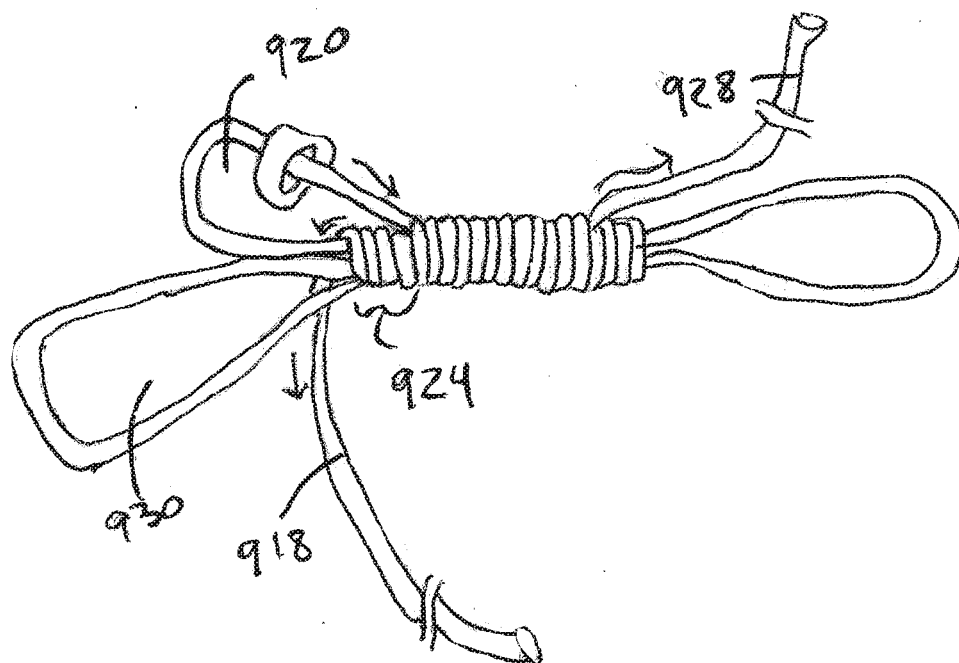


FIG. 9H

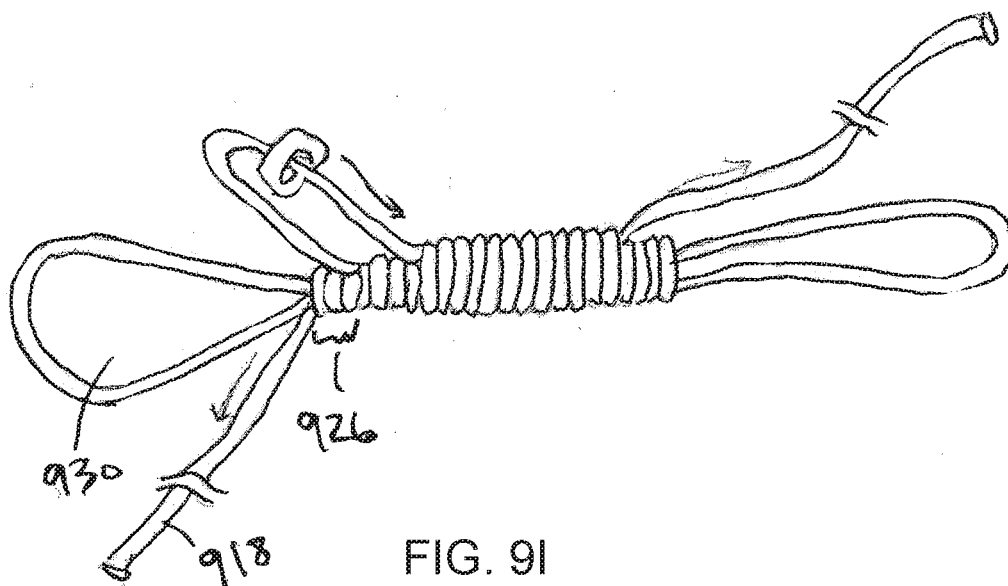


FIG. 9I

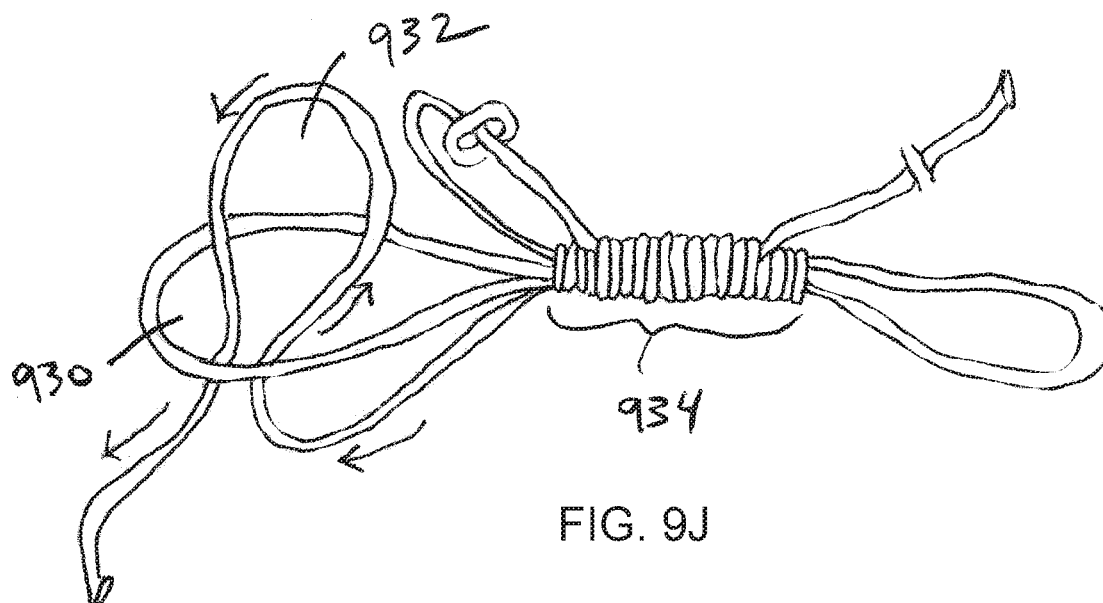


FIG. 9J

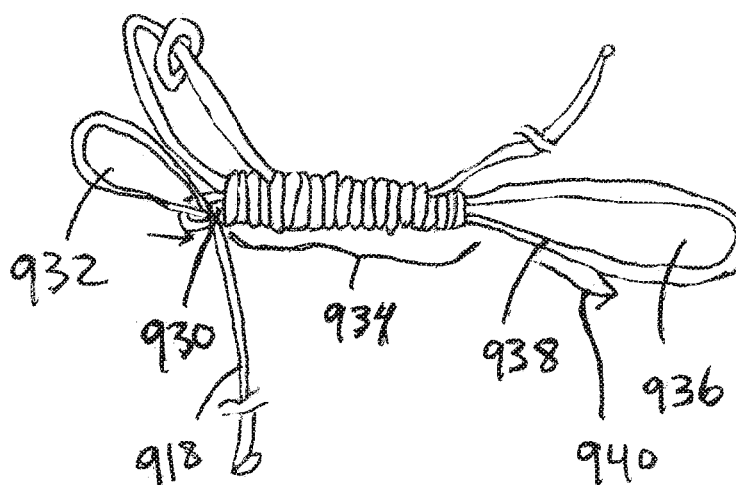


FIG. 9K

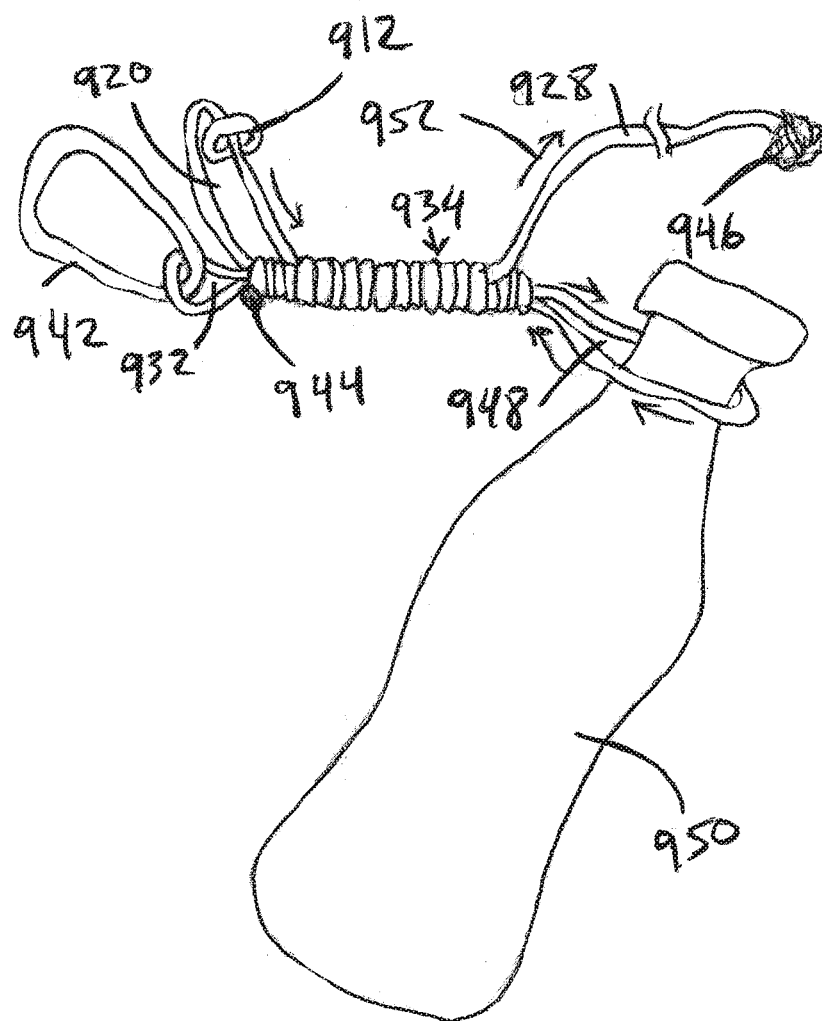


FIG. 9L

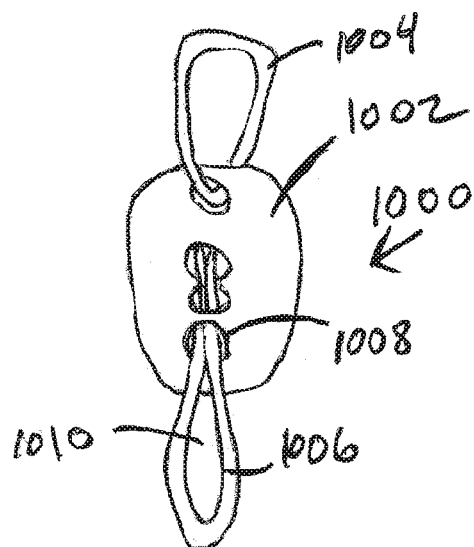


FIG. 10A

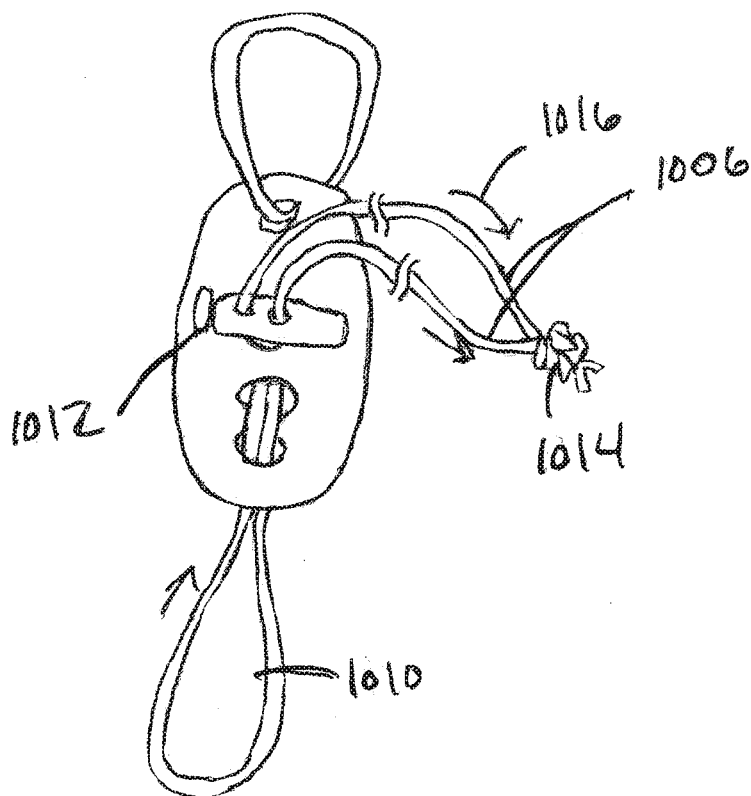


FIG. 10B

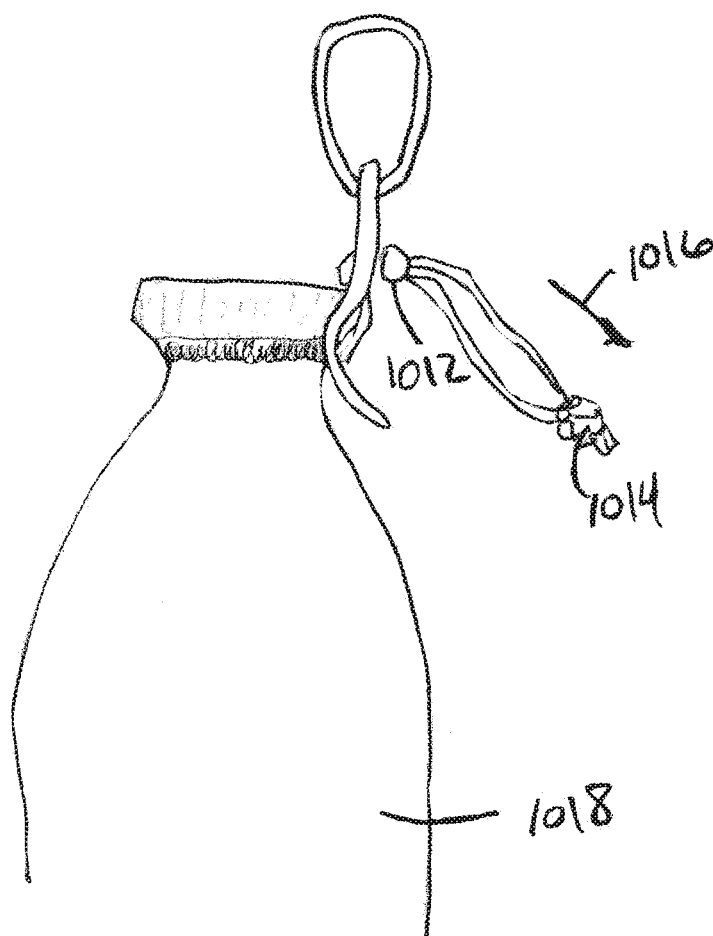


FIG. 10C

METHOD AND APPARATUS FOR AN ADJUSTABLE HARNESS

FIELD OF THE INVENTION

[0001] The present invention generally relates to harnesses, and more particularly to adjustable harnesses.

BACKGROUND

[0002] Woven straps and lanyards made of cord-type materials (e.g., parachute cord) abbreviated as “paracord,” are extremely popular and pervasive in today’s society. While originally associated with airborne applications (e.g., military airborne units) for use with parachutes, paracord has now found application in almost any situation where light, yet strong cordage may be needed.

[0003] Paracord may be used, for example, to implement a harness that may be used to secure equipment to persons so as to avoid losing small or important items. Once these harnesses (e.g., lanyards) are attached to the person, for example, any equipment that may be attached to the person via such a harness may be maintained in close proximity to the person no matter where that person may be at any particular time.

[0004] One common example of a harness that may be used to secure equipment to a person includes a strap that may be worn around the neck of a person. Such a strap may maintain a position of equipment (e.g., binoculars) to within a convenient distance of the person, such that whenever use of the equipment is required, all that need be done by the person is to locate the end of the harness to which the equipment is attached.

[0005] In some instances, however, simply locating the end of the harness to which the equipment is attached may be impeded (e.g., by exterior clothing). For example, a particular outdoor activity may require the application and subsequent removal of a garment (e.g., jacket) during cold and warm periods, respectively, of the outdoor activity. During the warm periods, access to the equipment that is strapped to the user may be unimpeded. During cold periods, however, the garment may be applied over the top of the equipment, such that access to the equipment may only be achieved by first removing a portion of the garment so as to gain access to the equipment that may be covered beneath the garment.

[0006] During such activities, a shorter harness may be used to maintain access to the equipment when no external garment is used. However, a longer harness may be necessary when an external garment is used so that the equipment may be secured to hang below the garment to remain conveniently accessible to the person even when the external garment is in use. Such uses, however, requires the use of multiple harnesses, each sized for the particular application - a shorter harness to maintain convenient access to equipment during a first usage scenario and a longer harness to maintain access to the equipment during a second usage scenario.

[0007] Efforts continue, therefore, to develop a single harness that may be used throughout multiple usage scenarios to preclude the use of multiple harnesses.

SUMMARY

[0008] To overcome limitations in the prior art, and to overcome other limitations that will become apparent upon

reading and understanding the present specification, various embodiments of the present invention disclose methods and apparatus for adjustable harnesses that may be used to secure equipment to persons throughout a number of usage scenarios. Such adjustable harnesses may, for example, be implemented as a woven strap that may be made of parachute cord (abbreviated as “paracord”) constructed from nylon or other cord materials, such as cotton, silk etc.

[0009] The harnesses may be adjustable along one or more dimensions (e.g., length) and one or more ends of the adjustable harnesses may be attached to equipment, such as binoculars, rifles, shotguns, cameras and range finders to name only a few. Other accessories, such as water bottles and snack containers, may also be tethered to the person via the adjustable harnesses.

[0010] In accordance with one embodiment of the invention, a harness comprises a weave portion and a cord interwoven throughout the weave portion to form a first loop portion, an intermediate portion and an end portion. A length of the first loop portion is configured to be adjustable by adjustment of a length of the end portion. A locking mechanism is coupled to the intermediate portion to fix the length of the first loop portion once adjusted. The locking mechanism is configured to cinch onto the weave portion to maintain the length of the first loop portion.

[0011] In accordance with an alternate embodiment of the invention, a harness system comprises a harness that includes a weave portion and a cord interwoven throughout the weave portion to form a first loop portion, an intermediate portion and an end portion. A length of the first loop portion is configured to be adjustable by adjustment of a length of the end portion. A locking mechanism is coupled to the intermediate portion to fix the length of the first loop portion once adjusted. The locking mechanism is cinched onto the weave portion to maintain the length of the first loop portion. The harness system further includes an accessory coupled to the first loop portion.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] Various aspects and advantages of the invention will become apparent upon review of the following detailed description and upon reference to the drawings in which:

[0013] FIG. 1 illustrates a harness during a first phase of assembly in accordance with one embodiment of the present invention;

[0014] FIG. 2 illustrates a harness during a second phase of assembly in accordance with one embodiment of the present invention;

[0015] FIG. 3 illustrates a portion of an adjustable harness in accordance with one embodiment of the present invention;

[0016] FIG. 4 illustrates an adjustable harness in accordance with one embodiment of the present invention;

[0017] FIG. 5 illustrates a system using an adjustable harness in accordance with one embodiment of the present invention;

[0018] FIGS. 6A-6N illustrate detailed assembly steps for a harness in accordance with one embodiment of the present invention;

[0019] FIGS. 7A-7B illustrate detailed assembly steps for a harness in accordance with an alternate embodiment of the present invention;

[0020] FIG. 8 illustrates a harness in accordance with an alternate embodiment of the present invention;

[0021] FIGS. 9A-9L illustrate detailed assembly steps for a harness in accordance with an alternate embodiment of the present invention; and

[0022] FIGS. 10A-10C illustrate detailed assembly steps for a harness in accordance with an alternate embodiment of the present invention.

DETAILED DESCRIPTION

[0023] Generally, the various embodiments of the present invention are applied to adjustable harnesses with locking mechanisms that may be used to tether equipment and/or accessories to a user. One or both ends of the harness may be used to tether equipment (e.g., binoculars, range finders, rifles) and/or accessories (e.g., water bottles, snack containers) to the user.

[0024] A dimension of the harness (e.g., length) may be adjusted to make the equipment and/or accessory more accessible to the user depending upon a particular use scenario. For example, a water bottle may be attached to a user's backpack, belt loop, quiver or any other desired object and a dimension (e.g., length) of the harness may be adjusted so as to be optimum for any type of user (e.g., the harness length may be increased for taller users and the harness length may be decreased for shorter users) so as to make the water bottle more accessible to the user via such an adjustable harness.

[0025] Whether the equipment or other accessory is strapped to the user via one or both ends of the harness, a dimension (e.g., length) may be adjusted (e.g., lengthened or shortened) to match the needs of the person. The adjusted dimension may then be prevented from changing by using a locking mechanism. For example, both ends of a neck harness may be used to strap a pair of binoculars to a user and each end may be adjusted to shorter or longer lengths depending upon whether the person has direct access to the binoculars (e.g., when the harness is not worn underneath an outer garment) or indirect access to the binoculars (e.g., when the harness is worn underneath an outer garment). For an indirect access scenario, for example, a length of the harness may be increased to allow the binoculars to extend below the outer garment so that the user may have direct access to the binoculars despite the existence of the outer garment.

[0026] To make the harness adjustable, a first length of cord may be interwoven into a weave of a strap, such that the first length of cord may form a closed loop at a first end of the strap and a free end of the first length of cord may ultimately emerge from the weave at a distance (e.g., a few inches) from the first end of the strap. The loop and the free end may then work in conjunction with one another to allow the loop to achieve an adjustable length with respect to the first end of the strap while a locking mechanism is disengaged. Once engaged, however, the locking mechanism may prevent a length of the loop from being changed.

[0027] In a first embodiment, a second end of the strap may receive a latching mechanism (e.g., carabiner or other latching mechanism) that may not allow a dimension adjustment. In such an instance, a first end of the harness may exhibit an adjustable dimension (e.g., a first loop having an adjustable length) and a second end of the harness may not exhibit an adjustable dimension (e.g., a second loop diametrically opposed to the first loop). The first loop may, for example, function as a latching mechanism (e.g., the first loop may be shortened around the neck of a water bottle) and

the second loop may be tethered to a user via the latching mechanism attached to the second loop.

[0028] In a second embodiment, a second length of cord may be interwoven into a weave of the strap, such that the second length of cord forms a closed loop at a second end of the strap and a free end of the second length of cord may ultimately emerge from the weave at a distance (e.g., a few inches) from a second end of the strap. The second loop and the second free end may then work in conjunction with one another to allow the second loop to achieve an adjustable length with respect to the second end of the strap. In such an embodiment, the harness may exhibit an adjustable dimension (e.g., a length of a loop portion) at both ends of the harness.

[0029] Turning to FIG. 1, first and second ends of a base cord are exemplified in a first phase of assembly of a harness, in which first end 102 of base cord 110 may be attached (e.g., via thread) to extension cord 106 and a second end 104 of base cord 110 may be attached (e.g., via thread) to extension cord 108 as shown. Any length of base cord 110 may be used depending upon the length of harness desired. In addition, any length of extension cords 106 and 108 may be used depending upon the magnitude of adjustment desired. For example, longer lengths of extension cords 106 and 108 may be used if a greater magnitude of length adjustment is desired.

[0030] Extension cord 106 may exhibit an intermediate portion 112 and an end portion 116. Similarly, extension cord 108 may exhibit an intermediate portion 114 and an end portion 118. As described in more detail below, intermediate portions 112 and 114 may be encapsulated by a weave, such that each intermediate portion forms a loop at either end of the weave. Additionally, end portions 116 and 118 may emerge from the weave at a distance (e.g., a few inches) from their respective loop portions.

[0031] Turning to FIG. 2, a base cord and a first extension cord are exemplified in a second phase of assembly, in which a first end of a base cord (e.g., end 104 of FIG. 1) and an intermediate portion of an extension cord (e.g., intermediate portion 114 of FIG. 1) may be encapsulated by weave 202 to form a loop 204 in extension cord 206 and an end portion 208 of extension cord 206. End portion 208 of extension cord 206 may emerge from weave 202 at a distance 210 from loop 204, where distance 210 may be any distance. It should be noted, that a dimension (e.g., length) of loop 204 may be adjusted by appropriate movement of end portion 208. For example, a length of loop 204 may be increased by decreasing a length of end portion 208. Conversely, for example, a length of loop 204 may be decreased by increasing a length of end portion 208.

[0032] An additional assembly step is exemplified in FIG. 2 in which a locking mechanism (e.g., bead 212) may be threaded onto end portion 208. As discussed in more detail below, locking mechanism 212 functions to lock both loop 204 and end portion 208 in place to prevent variation in the dimensions of loop 204 and end portion 208 once locked in place.

[0033] Turning to FIG. 3, a final assembly of a portion of harness 300 is exemplified, in which an end portion (e.g., end portion 208 of FIG. 2) of an extension cord (e.g., extension cord 206 of FIG. 2) is threaded back into the weave (e.g., weave 202 of FIG. 2) to emerge from weave 302 at a distance between a locking mechanism (e.g., bead 304) and a first end of weave 302 to form end portion 306.

It should be noted that a second end of harness 300 (not shown) may or may not be formed with the same locking loop mechanism exemplified in FIG. 3.

[0034] In operation, a length of end portion 306 may be adjusted in either direction 310 to effectively adjust a length of loop 312. For example, a length of end portion 306 may be decreased by first pulling intermediate portion 314 through weave 302 to decrease the length of end portion 306 and increase the length of intermediate portion 314. Next, the increased length of intermediate portion 314 may be decreased by pulling portion 316 in direction 308 through weave 302 to increase a length of loop 312. Conversely, a length of loop 312 may be decreased by first pulling intermediate portion 314 through weave 302 to decrease the length of loop 312 and increase the length of intermediate portion 314. Next, the increased length of intermediate portion 314 may be decreased by pulling end portion 306 in direction 310 through weave 302 to increase a length of end portion 306.

[0035] It can be seen, therefore, that adjustment of the length of loop 312 works in conjunction with a length of end portion 306. In addition, the length of loop 312 may be locked into position by tightening intermediate portion 314 onto the corresponding locking mechanism (e.g., bead 304). Intermediate portion 314 may be tightened by shortening intermediate portion 314 either by lengthening the length of end portion 306 or by lengthening the length of loop portion 312. In order to prevent end portion 306 from being pulled completely through weave 302, a stop mechanism (e.g., diamond knot 318) may be utilized. Additionally, a sliding mechanism (e.g., ranger knot 320) may be similarly utilized to prevent loop portion 312 from being pulled completely into weave 302.

[0036] Turning to FIG. 4, adjustable portion 402 of a harness (e.g., harness 300 of FIG. 3) may be attached to a breakaway portion (e.g., breakaway buckle 404). A non-adjustable harness 406 may be similarly attached to breakaway buckle 404, whereby portion 408 may be attached to a user (e.g., looped around a belt loop of the user via carabiner or other latching mechanism) and adjustable loop portion 410 may be cinched around a piece of equipment or accessory by decreasing a length of adjustable loop 410 as discussed above, for example, in relation to FIG. 3.

[0037] Turning to FIG. 5, system 500 is exemplified in which adjustable harness 502 may be utilized to secure an object (e.g., water bottle 504) to a user. In operation, a dimension (e.g., length) of adjustable loop 506 may be decreased by increasing a dimension (e.g., length) of end portion 508 in order to cinch adjustable loop 506 onto a neck portion of water bottle 504. Once adjustable loop 506 is cinched onto a neck portion of water bottle 504, intermediate portion 510 may be cinched down onto weave 514 and a locking mechanism (e.g., bead 512) by pulling end portion 508 through weave 514. A locking mechanism (e.g., carabiner 516) may then be attached to a user (e.g., via user's belt, quiver, backpack, purse, etc.) via the locking mechanism. It should be noted that locking mechanism 516 may be attached to weave 514 via a breakaway portion (e.g., breakaway buckle 404 of FIG. 4). In alternate embodiments, locking mechanism 516 may be attached to weave 514 by second loop 518 that may be diametrically opposed to adjustable loop 506.

[0038] Turning to FIGS. 6A-6N, detailed illustrations are shown to exemplify the steps for assembly of a harness in

accordance with one embodiment of the invention. It should be noted that the assembly steps exemplified by FIGS. 6A-6N may be performed using any number of methods. For example, a person using their hands, fingers and assorted tools may implement the assembly steps exemplified in FIGS. 6A-6N. Alternatively, for example, an automated assembly machine (e.g., robot) may be used to implement the assembly steps exemplified in FIGS. 6A-6N.

[0039] As exemplified in step 1 of FIG. 6A, two lengths of a cord-like material (e.g., paracord lengths 602 and 604) may be cut to any length (e.g., approximately 15 inches each) and may be aligned such that each cord 602 and 604 may exhibit portions that may point in direction 608, where each portion may exhibit any length 606 (e.g., approximately 5-6 inches). Securing both cords 602 and 604 at position 610, a portion of cord 602 above position 610 may be looped across the front of both cords 602 and 604.

[0040] In step 2 as exemplified in FIG. 6B, a portion of cord 604 may be taken behind both cords 602 and 604 at a position proximate to position 610. Next, that portion of cord 604 may then be threaded through loop 612 from back to front. A portion of cord 602 may then be taken in front of both cords 602 and 604 at a position proximate to position 610 and then threaded through loop 614 from front to back.

[0041] In step 3 as exemplified in FIG. 6C, a portion of cord 604 may be taken in front of both cords 602 and 604 and then threaded through loop 614 from front to back in direction 616. In step 4 as exemplified in FIG. 6D, a portion of cord 602 may be taken behind both cords 602 and 604 and then threaded through loop 612 from back to front in direction 618. In step 5 as exemplified in FIG. 6E, the upper ends of cords 602 and 604 may be pulled in directions 622 and 624, respectively, to close loops 612 and 614 (not shown in FIG. 6E).

[0042] Next, portion 620 of cord 604 may be pulled in direction 626 (as exemplified in step 6 of FIG. 6F) to form loop 628. Once loop 628 is formed, upper ends of cords 602 and 604 may be pulled in directions 630 and 632, respectively, to tighten the harness assembly. Loop 628 may, for example, allow an optional fastening mechanism (e.g., a carabiner or similar latching mechanism) to be attached to the harness assembly.

[0043] In step 7 as exemplified in FIG. 6G, a harness feature (e.g., a cinch) may be created in the harness assembly. A portion of cord 602 may form a top cinch cord 634 by laying that portion of cord 602 over the top of the harness assembly forming cinch loop 638. Similarly, a portion of cord 602 may form back cinch cord 636. A portion of cord 604 (e.g., portion 640) may be guided to lay across the top of top cinch cord 634 in direction 642. A portion of cord 602 (e.g., cord 644) is then placed over cord 640.

[0044] In step 8 as exemplified in FIG. 6H, cord 644 may be guided behind the harness assembly through loop 646 in direction 648. Additionally, cord 640 may be guided through loop 650 in direction 652.

[0045] In step 9 as exemplified in FIG. 6I, the weave of cords 644 and 640 (e.g., the weave discussed above in relation to step 8 of FIG. 6H) may be repeated a number (e.g., 3) of times such that top cinch cord 634 may be looped by cord 640 a number (e.g., 3) times and cord 644 may loop behind top cinch cord 634 a number (e.g., 3) times. For each repetition of the weave, cords 644 and 640 may be kept taut such that top cinch cord 634 may be held securely within the harness assembly.

[0046] In step 10 as exemplified in FIG. 6J, top cinch cord 634 may be threaded through a cinch mechanism (e.g., bead 654) as shown forming a portion (e.g., cinch cord 656) of top cinch cord 634 extending past bead 654. Alternately, for example, bead 654 may be removed and a cinch mechanism (e.g., a square knot tied onto top cinch cord 634) in place of bead 654 may be used instead.

[0047] In step 11 as exemplified in FIG. 6K, bead 654 may be threaded along top cinch cord 634 until it becomes in close proximity to the harness assembly as shown. Next, cinch cord 656 of top cinch cord 634 may be laid down over the top of the harness assembly. Next, the weave of cords 644 and 640 (e.g., the weave discussed above in relation to step 8 of FIG. 6H) may be repeated a number (e.g., 4) of times.

[0048] In step 12 as exemplified in FIG. 6L, a total number (e.g., 4) of weaves 658 of cords 640/644 may surround cinch cord 656 before cinch cord 656 exits the harness assembly at position 662. In addition, a total number (e.g., 3) of weaves 660 of cords 640/644 may extend below position 662. It should be noted that the number of weaves 658 and 660 may be adjusted such that a particular harness assembly length may be achieved as desired.

[0049] Once the desired length of harness assembly is achieved, cord 644 of the weave may be terminated. For example, cord 644 may be cut such that a portion (e.g., about 1/4") of cord 644 remains protruding from the harness assembly. Next, the protruding end of cord 644 may be finished (e.g., melted and then pressed to form flat end 664) as exemplified in step 13 of FIG. 6M, such that end 664 may secure itself against the harness assembly. In addition, the remaining portions (e.g., portions 668) of the harness assembly may be similarly terminated and finished such that they too may be secured against the harness assembly.

[0050] In step 14 as exemplified in FIG. 6N, adjustment of a length 670 of cinch loop 638 may be achieved. For example, cinch cord 656 may be pulled in direction 672 to shorten length 670 of cinch loop 638 to a desired length (e.g., about 2 inches) from the bottom of weave 674. Next, the free end of cinch loop 638 may be pulled in direction 676 to cinch bead 654 against weave 674, so as to lock the length 670 of cinch loop 638 into place. A length (e.g., 12 inches) of cinch cord 656 may then be selected and then terminated (e.g., by using a single strand diamond knot 678). Knot 678 may then be finished (e.g., by a melting and flattening process) such that knot 678 may be permanently attached to cinch cord 656.

[0051] Turning to FIGS. 7A-7C, an alternate embodiment is exemplified, whereby a harness assembly may be attached to a breakaway buckle 702, whereby breakaway buckle may include breakaway portions 704 and 706. Button 708 may, for example, be pressed to disengage breakaway portion 704 from breakaway portion 706.

[0052] To begin attachment of a harness assembly to breakaway buckle 702, cords 712 and 714 may be threaded through hole 710 from front to back leaving a length 716 (e.g., 5-6 inches) of each of cords 712 and 714 hanging down from breakaway buckle 702. Portion 718 of cord 714 may loop behind cords 712 and 714 and may be threaded through loop 722 formed by cord 712. Similarly, portion 720 of cord 712 may loop in front of cords 712 and 714 and may be threaded through loop 724 formed by cord 714.

[0053] The next step, as exemplified in FIG. 7B, may include looping cord 720 over the top of cords 712 and 714

and then threading cord 720 through loop 726 formed by cord 718. Similarly, cord 718 may be looped behind cords 712 and 714 and then threading cord 718 through loop 728 formed by cord 720. Remaining steps (e.g., steps as exemplified in FIGS. 6G through 6N) may be repeated to finish the harness assembly with breakaway buckle 702.

[0054] Turning to FIG. 8, an exemplary embodiment is shown in which harness assembly 802 in conjunction with breakaway buckle 804 may be combined with an additional attachment mechanism (e.g., carabiner 806) to provide a convenient mechanism to retain an accessory (e.g., bottle 808) attached to a user.

[0055] As a first step, cinch loop 810 may be loosened (e.g., lengthened) by creating slack in cinch cord 814 that may be threaded through a locking mechanism (e.g., bead 812). Next, a length of cinch loop 810 may be increased by decreasing a length of adjustment cord 816 such that a portion of bottle 808 (e.g., bottle neck 818) may be engaged by cinch loop 810. Once engaged, slack in cinch cord 814 may be removed by adjustment of a free end of cinch loop 810 and lengthening of adjustment cord 816 such that bead 812 snugs up against harness assembly 802 to lock loop 810 in place around bottle neck 818. Accordingly, carabiner 806 may be engaged onto a user (e.g., a belt loop of the user) such that water bottle 808 is maintained within reach of the user. In addition, break away buckle 804 may be used to conveniently disconnect water bottle 808 from the user to, for example, make water bottle 808 available for refill.

[0056] Turning to FIGS. 9A-9L, detailed illustrations are shown to exemplify the steps for assembly of a harness in accordance with an alternate embodiment of the invention. It should be noted that the assembly steps exemplified by FIGS. 9A-9L may be performed using any number of methods. For example, a person using their hands, fingers and assorted tools may implement the assembly steps exemplified in FIGS. 9A-9L. Alternatively, for example, an automated assembly machine (e.g., robot) may be used to implement the assembly steps exemplified in FIGS. 9A-9L.

[0057] In the steps exemplified in FIGS. 9A-9C, a length (e.g., about 40") of cord 904 may be laid down in a serpentine shape and drawn close together at position 902 proximate to the middle portion of the serpentine. In the step exemplified in FIG. 9D, portion 904 may be wrapped around horizontal portions 908 in direction 910 as shown and the wrap may be continued for a number (e.g., 3-4) times as exemplified in FIGS. 9E and 9F.

[0058] As exemplified in FIG. 9F, a locking mechanism (e.g., bead 912) may be threaded onto portion 914. In the step exemplified in FIG. 9G, portion 916 may be doubled over to form loop 920 having free end 928 and portion 918 may continue to be wrapped around loops 920 and 930 to form wrapped portion 922. As exemplified in FIG. 9H, portion 918 may continue to be wrapped around loops 920 and 930 a number of times (e.g., 4), not including free end 928, to form wrapped portion 924. As exemplified in FIG. 9I, portion 918 may continue to be wrapped around loop 930 a number of times (e.g., 3 or 4) to form wrapped portion 926 as shown.

[0059] In the step exemplified in FIG. 9J, portion 918 is drawn into loop 930 to form loop 932 as shown. It should be noted that wrapped portion 934 should be kept taut. As exemplified in FIG. 9K, pulling on portion 938 in direction

940 lengthens loop 936, thereby causing loop 930 to be shortened and eventually tightened onto the end of wrap 934 as shown.

[0060] Loop 932 remains as an auxiliary loop that may be used to attach additional latching mechanisms (e.g., carabiner 942) as exemplified in FIG. 9L. The free end of portion 918 may be finished. For example, portion 918 may be cut such that a portion (e.g., about ¼") of portion 918 remains protruding from the harness assembly. Next, the protruding end of portion 918 may be finished (e.g., melted and then pressed to form flat end 944) as exemplified in FIG. 9L, such that end 944 may secure itself against the harness assembly. To complete the harness, an end stop (e.g., knot or bead 946) may be formed/installed onto the end of portion 928 to, for example, prevent portion 928 from being drawn into wrapped portion 934.

[0061] In use, loop 948 may be drawn tight around an object (e.g., a neck portion of water bottle 950) by pulling portion 928 in direction 952, which also causes loop 920 to tighten bead 912 up against wrapped portion 934. As a result, loop 948 is held taut around water bottle 950. In addition, carabiner 942 may be used to attach the harness and water bottle to a user (e.g., to a belt loop of a user).

[0062] Turning to FIG. 10A, a front view of harness 1000 is exemplified in accordance with an alternate embodiment of the invention. Harness 1000 may include a body portion (e.g., leather portion 1002) having holes 1008 and a cord 1006 threaded through holes 1008 to form loop 1010 as shown. In addition, clip or carabiner 1004 may also be included with harness 1000.

[0063] Turning to FIG. 10B, a back view of harness 1000 is exemplified, where cord lock 1012 is shown. The two free ends of portion 1006 may be formed together (e.g., using knot 1014).

[0064] In use, as exemplified in FIGS. 10B and 10C, loop 1010 may be shortened and thereby tightened around an object (e.g., water bottle 1018) by pulling on knot 1014 in direction 1016. Friction produced onto cord 1006 by holes 1008 and cord lock 1012 may cause loop 1010 to remain in its adjusted length until such time that cord lock 1012 is withdrawn to once again allow adjustment of a length of loop 1010.

[0065] Other aspects and embodiments of the present invention will be apparent to those skilled in the art from consideration of the specification and practice of the invention disclosed herein. It is intended, therefore, that the specification and illustrated embodiments be considered as examples only, with a true scope and spirit of the invention being indicated by the following claims.

What is claimed is:

1. A harness, comprising:
 - a weave portion;
 - a cord interwoven throughout the weave portion to form a first loop portion, an intermediate portion and an end portion, wherein a length of the first loop portion is configured to be adjustable by adjustment of a length of the end portion; and
 - a locking mechanism coupled to the intermediate portion to fix the length of the first loop portion once adjusted, wherein the locking mechanism is configured to cinch onto the weave portion to maintain the length of the first loop portion.
2. The harness of claim 1, wherein the cord is comprised of parachute cord.

3. The harness of claim 1, wherein the locking mechanism includes a bead.

4. The harness of claim 1, wherein the locking mechanism includes a knot formed in the intermediate portion of the cord.

5. The harness of claim 1, further comprising a second loop portion formed by the cord, the second loop portion being diametrically opposed to the first loop portion.

6. The harness of claim 1, wherein a length of the second loop portion is adjustable.

7. The harness of claim 1, wherein a length of the second loop portion is not adjustable.

8. The harness of claim 7, further comprising a carabiner coupled to the second loop portion.

9. The harness of claim 7, further comprising a breakaway buckle coupled to the second loop portion.

10. The harness of claim 9, wherein the breakaway buckle includes,

- a first breakaway portion coupled to the second loop portion; and
- a second breakaway portion removably coupled to the first breakaway portion.

11. The harness of claim 10, further comprising a carabiner coupled to the second breakaway portion.

12. A harness system, comprising:

a harness including,

a weave portion;

a cord interwoven throughout the weave portion to form a first loop portion, an intermediate portion and an end portion, wherein a length of the first loop portion is configured to be adjustable by adjustment of a length of the end portion; and

a locking mechanism coupled to the intermediate portion to fix the length of the first loop portion once adjusted, wherein the locking mechanism is cinched onto the weave portion to maintain the length of the first loop portion; and

an accessory coupled to the first loop portion.

13. The harness system of claim 12, wherein the accessory includes a water bottle.

14. The harness system of claim 12, wherein the accessory includes binoculars.

15. The harness system of claim 12, wherein the accessory includes a range finder.

16. The harness system of claim 12, wherein the accessory includes a snack container.

17. The harness of claim 12, further comprising a second loop portion formed by the cord, the second loop portion being diametrically opposed to the first loop portion.

18. The harness system of claim 12, further comprising a breakaway buckle coupled to the second loop portion, the breakaway buckle including,

- a first breakaway portion coupled to the second loop portion; and
- a second breakaway portion removably coupled to the first breakaway portion.

19. The harness system of claim 18, further comprising a carabiner coupled to the second breakaway portion of the breakaway buckle.

20. The harness system of claim 19, wherein the carabiner is configured to attach the harness and the accessory to a user.