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(54) **SURVIVAL BELT**

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(57) **ABSTRACT**

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A multi-purpose survival belt includes an elongated strap having a sealable cavity along its length and configured for storage and retrieval of a thin, foldable sheet. The cavity is sealable by means of a zipper or Velcro® loop-type arrangement. The thin material may be in the form of a body insulating sheet, rope, wire saws and the like. The belt includes a sealable buckle configured for storage and retrieval of selected implements. The belt provides convenient and immediate access for implements stored in the various portions of the belt. The belt uses a conventional locking hook and aperture arrangement for cinching about a wearer.

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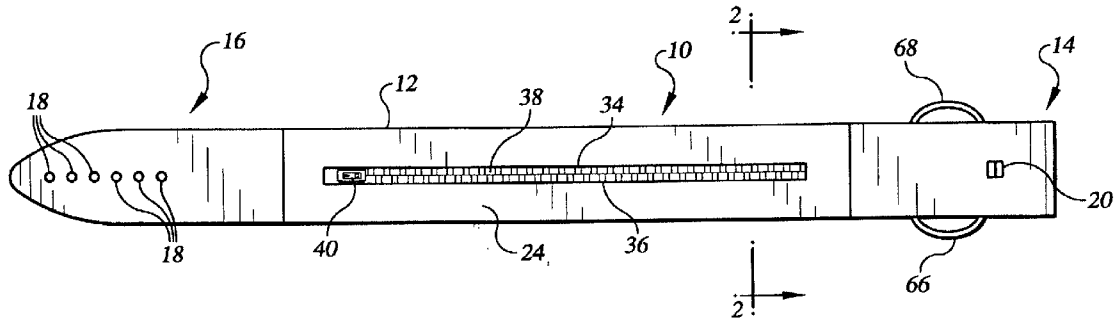


FIG.1

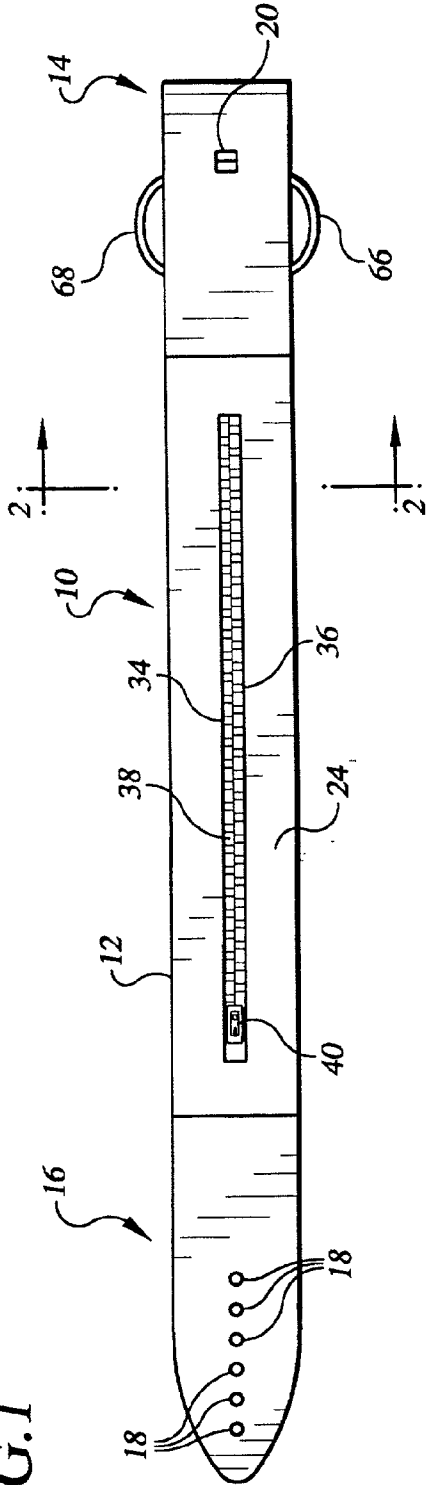


FIG.3

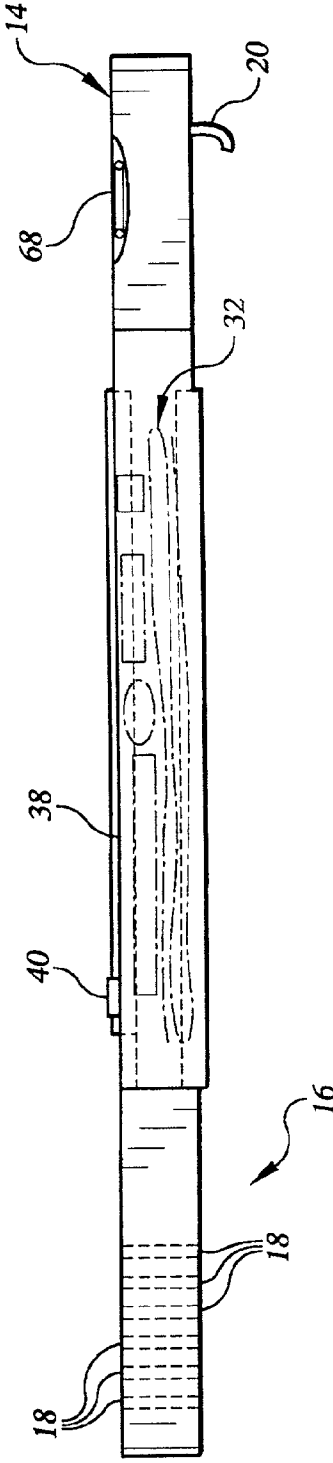


FIG.2B

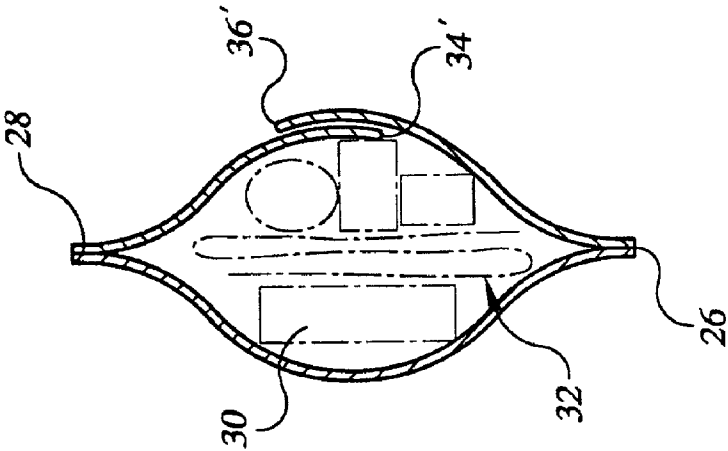
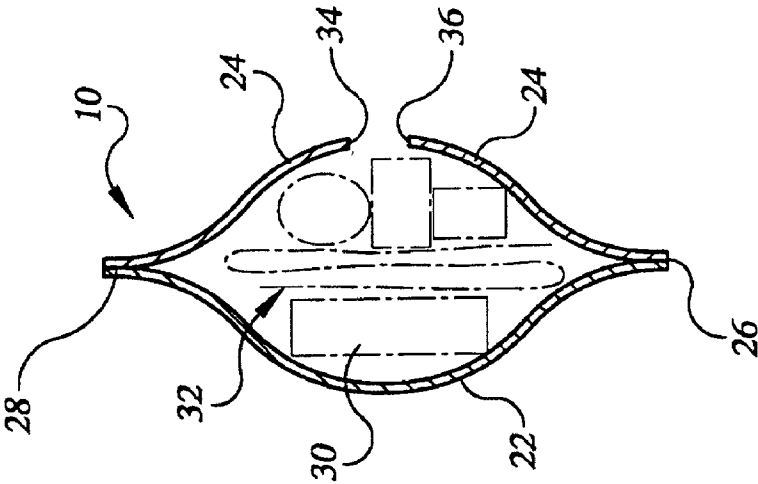


FIG.2A



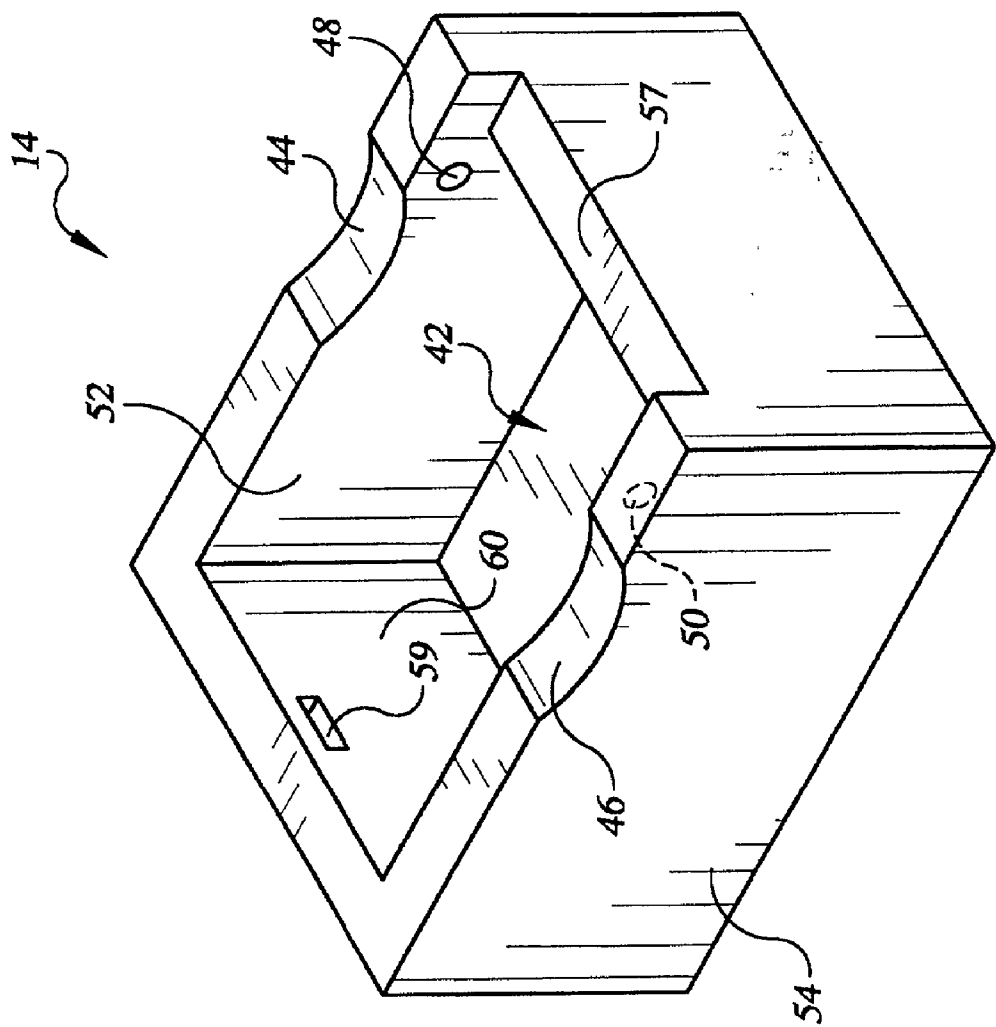


FIG. 4

FIG. 5

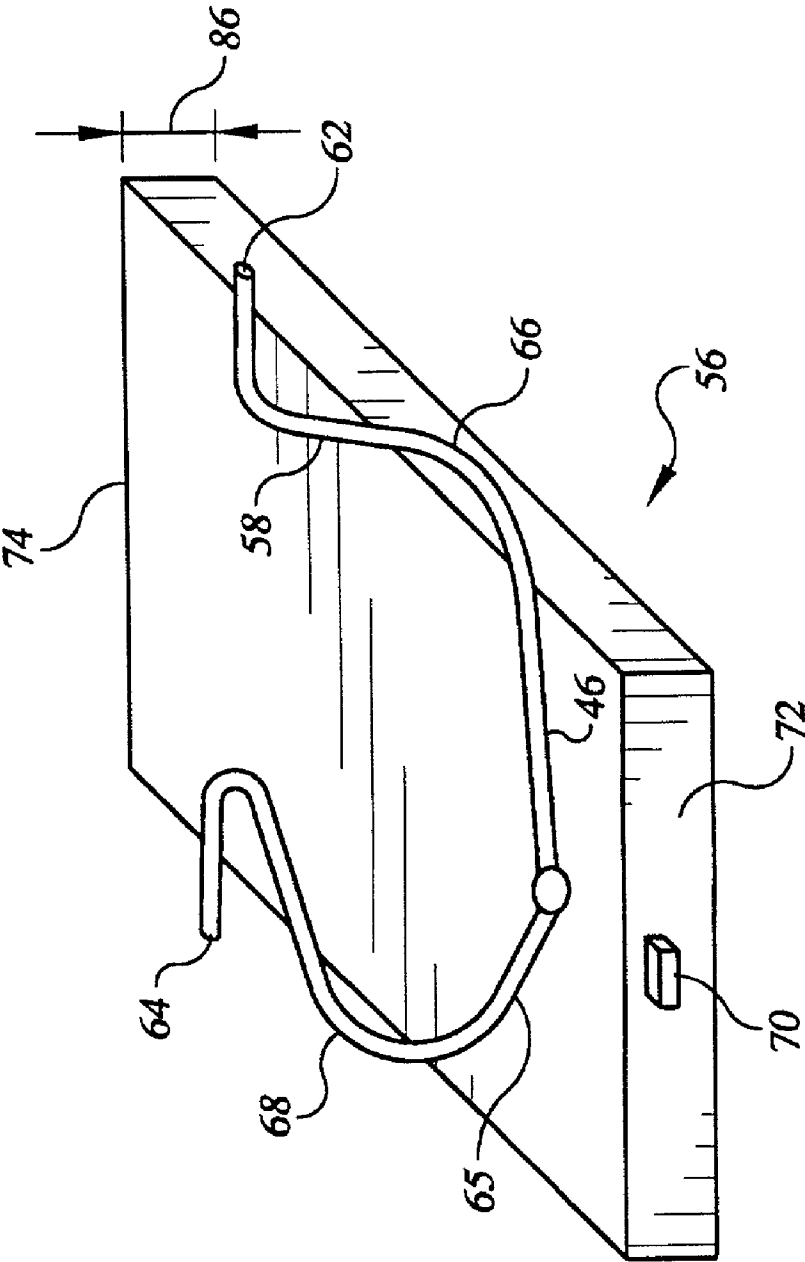
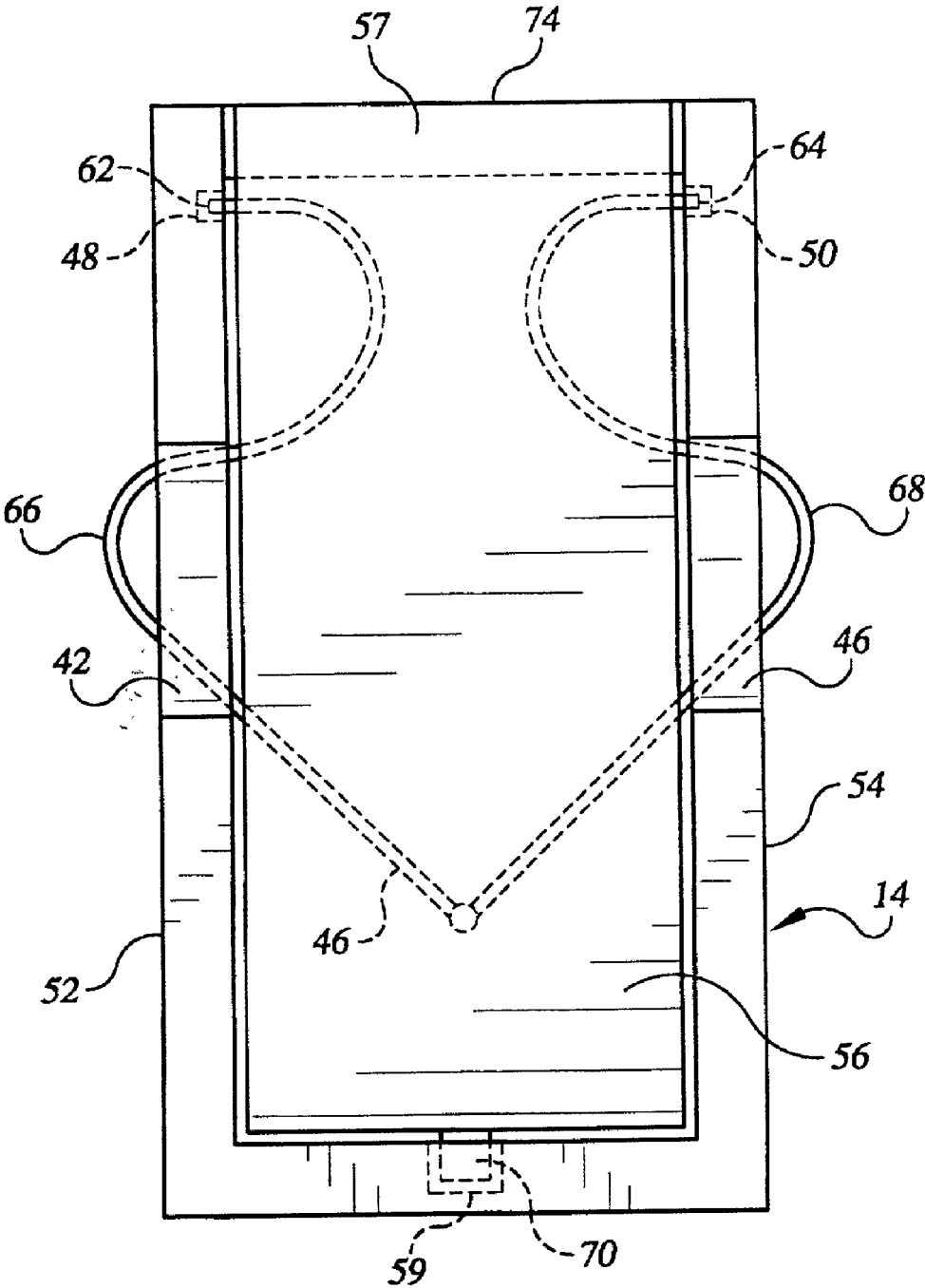


FIG. 6



### SURVIVAL BELT

[0001] highly compactible body shields, commonly known as a space blanket, capable of insulating an individual from the heat or cold also facilitates the user's efficiency and convenience objectives in becoming self-sufficient during such travels. Such containers also accommodate people who are either unwilling or unable to carry a side pouch or back pack. Obviously, much of what a user requires may be contained in a conventional back pack. However, the more a user loads into the back pack the less the space available for other implements. Moreover, the more densely loaded the back pack becomes the less efficient, and more onerous and time consuming retrieval of the pack contents becomes.

[0002] There are utility belts known in the art. They typically are adapted as implement carrying belts that are used by tradesmen such as maintenance and construction personnel, painters, mechanics, electricians, carpenters, utility pole servicemen and even police and military servicemen. Usually these belts have removable or adjustable implement carrying holders adaptable for a wide range of desired uses and applications. Such belts are shown, for example, in U.S. Pat. No. 5,501,379 to Munoz which relates to a modular utility belt. Another example is U.S. Pat. No. 6,073,823 to Gordon which relates to a multipurpose utility belt. Still another example is U.S. Pat. No. 5,893,498 to Aaronson which relates to a socket retaining utility belt.

[0003] The belts of the prior art generally are used as a support for holding implements in holders that are either attached to or hang from the belts. The belts of the prior art do not have multiple purpose belt buckles for the purpose of cinching the belt to a user while having a sealable container for holding implements for immediate and easy access. Moreover, the belts do not utilize the strap portion as a sealable container for storing and easy retrieval of thin, foldable body cover material and rope-like items.

### SUMMARY OF THE INVENTION

[0004] It is therefore a primary aim of the present invention to define a belt that provides convenience in rapid storage and retrieval of implements from the belt buckle and from the strap portion of the belt. The belt according to the present invention includes a sealable container portion extending essentially lengthwise of the strap portion of the belt that is capable of storing a thin, foldable sheet and cord-like implements. A seal is accomplished either by a zipper or Velcro® looped locking arrangement and encloses/seals the contained item between opposite facing sides of the strap. The sealing arrangement may be located on either side of the strap but for convenience purposes preferably it is along the outside facing side. Since the strap, of necessity, is flexible so as to be cinched about a wearer, the items contained within the belt are typically flexible as well.

[0005] Attached at one end of the belt is a relatively large buckle having a removable face plate such that when the face plate is removed, the interior of the buckle is exposed for either inserting or retrieving items from within. Items intended for storage and retrieval in the buckle may include items such as, for example, a compass, whistle, pliers, scissors, matches, medications, a flashlight and electronic devices. The buckle face plate is secured to the buckle by a pair of spring-loaded probes that are inserted in correspond-

ing apertures in the buckle side walls. Hinge arrangements may also be used to allow for the face plate to swivel between open and closed positions without departing from the spirit of the invention. The buckle includes a locking probe that may be inserted into any one of the series of apertures on the opposite end of the belt for size adjustment to accommodate a wearer.

[0006] Other features of the present invention will become readily apparent from the following detailed description of the preferred embodiment when considered with the attached drawings and the appended claims.

### BRIEF DESCRIPTION OF THE DRAWINGS

[0007] FIG. 1 is a top view of an embodiment of the survival belt of the present invention;

[0008] FIG. 2A is a cross-sectional view of the belt of FIG. 1 taken along lines 2-2;

[0009] FIG. 2B is an alternate embodiment of the belt of FIG. 2A;

[0010] FIG. 3 is a side view of the belt of FIG. 1 with the contents of the container within the strap shown in phantom;

[0011] FIG. 4 is a perspective view of the buckle of the belt of FIG. 1 with the face plate removed;

[0012] FIG. 5 is a perspective view of the underside of the face plate of the buckle of FIG. 4; and

[0013] FIG. 6 is a top view of the buckle of FIG. 4 with the face plate locked in the sealing position.

### DETAILED DESCRIPTION

[0014] Referring now to the drawings, there is shown belt 10 having a strap 12, a buckle end 14 and an engagement end 16. The strap 12 and engagement end 16 may be formed of a number of commercially available materials such as, for example, leather, plastic, or strong woven fabric. The engagement end 16 includes a series of spaced apart openings or apertures 18 longitudinally directed along the engagement end 12 so as to provide adjustability when cinching the belt depending upon the point of engagement with "c" shaped locking hook 20. The openings 18 extend through the thickness of the engagement end 16 to thereby provide a secure grip. The material forming the strap portion 12 and the engagement portion 16 may be the same material or a different material and they may be joined together in any one of a number of methods known in the art.

[0015] For the present invention, the strap 12 is formed of two individual segments 22 and 24 (as shown in FIG. 2A) attached together along ends 26 and 28 so as to provide an interior cavity or space 30 capable of containing and storing a selectable number of implements 32. Segment 24 has an opening defined by edge 34 and 36 to which is attached respective teeth portions of a zipper 38. A zipper sliding piece 40 engages edges 34 and 36 in a conventional manner to open and close the zipper to provide access and sealing of the cavity 30. Other methods of sealing the cavity 30 may be used as for example by way of a hook and loop locking arrangement commonly known under the name Velcro® with one edge of segment 24 having the hook arrangement and the other edge having the loop arrangement. A still further example of a releasable fastener may be the inter-

locking plastic edges commonly known as Zip Lock fasteners. In an alternate embodiment (see FIG. 2B), edges 34® and 36® may be sized so as to provide for an overlapping sealing arrangement without the use of the interlocking sealing arrangements described above.

[0016] The cavity 30 is sized to accommodate a variety of implements therein. In particular, the invention contemplates storage of what may be called a space blanket. A space blanket may be formed of a very thin typically plastic material capable of being rolled up into a relatively small volume so as to fit into the cavity 30 typically lengthwise and permit the sealing element such as a zipper to be closed thereby storing the space blanket within the cavity 30. The space blanket may have an insulative end and/or reflective coating so as to provide a full body cover for a user who seeks insulation from a cold environment or reflection of sunlight in a bright warm environment. Other types of implements may include wire saws, ropes and surgical wrappings. With all types of sealing apparatus, it is understood that they are sufficiently flexible enough to allow the belt to be cinched about a wearer.

[0017] A buckle 14 is coupled to strap 10 in any one of a number of methods known in the art. The buckle 10 as shown in FIG. 4 is formed of a durable, strong material such as metal commonly used in belts. The buckle of FIG. 4 is shown as an embodiment having a rectangular shape and cross-section. However, it is to be understood that the shape of the buckle may be round, oval or any other geometry without departing from the spirit and contemplation of the invention. The buckle 14 includes a receptacle 42 that is sized to contain any number of implements such as, but not limited to, a compass, GPS, scissors, matches, flashlight, medications and the like. Buckle 14 includes two scalloped portions 44 and 46 and as will be described later in detail, the scalloped portions provide clearance for movement of a locking spring 46.

[0018] Two apertures 48 and 50 extend into sidewalls 52 and 54 respectively and are positioned to be in alignment with respective ends of spring 46 when a face plate 56 is placed on buckle 14 in the sealing position. A cut-out or plateau 57 provides clearance and a platform upon which face plate 56 rests when it is in the sealing position. A recess 59 extends inward of rear wall 60 and as will be described later, provides a rear anchor for face plate 56.

[0019] Referring to FIG. 5, there is shown a perspective view of an embodiment of the face plate 56[underside] of the present invention. Face plate 56 includes a retractable spring 46 which is anchored to the underside of the plate by any one of a number of conventional techniques known in the art. Spring 46 comprises two symmetrically movable arms 58 and 60 having ends 62 and 64 respectively. Application of a force to the exposed ends 66 and 68, urging the arms 58 and 60 together, causes the ends 62 and 64 to retract inward towards each other to a location within the border of the face plate 56. An extension 70 protrudes outward from the face plate rear edge 72.

[0020] The extension 70 is shaped to conform to the profile of recess 59 and the spring ends 62 and 64 are shaped to conform to the profile of apertures 48 and 50. To mount the face plate 56 in the sealing position a compressive force is applied to exposed ends 66 and 68 which draws each end 62 and 64 to be positioned within the border of the face plate

56. The face plate 56 is guided into position such that extension 70 enters recess 59 and front edge 74 rests upon plateau 57. At such location, spring ends 62 and 64 are in alignment with apertures orifices 48 and 50 and upon release of the compressive force on the exposed ends 66 and 68 the spring ends 62 and 64 enter the respective apertures thereby locking the face plate 56 to the buckle 14. To release the face plate 56 from its locked or sealing position, a compressive force is simultaneously applied to exposed end 66 and 68 until the ends clear the respective apertures and the face plate 56 can be thereafter removed. As shown in FIG. 6 when in the sealing position, exposed end 66 and 68 extend beyond the walls 52 and 54 by virtue of the clearance provided by the scalloped portions 44 and 46.

[0021] As shown in FIG. 5, the face plate 56 has a rectangular shape having a thickness 76. The depth of plateau 57 is sized to be equal to that of the face plate thickness 76 such that when the face plate is in the sealing position the buckle 14 will have a relatively flat outer surface. It is to be understood that the face plate 56 faces away from the wearer when the belt is cinched about the wearer. Further, it is to be understood that the cross-section and described embodiment is not to be taken in a limiting sense and that adjustment of dimension and profile as well as locking arrangements of the face plate 56 and buckle 14 are well within the contemplation of the invention.

[0022] Although the present invention has been described in considerable detail with reference to certain preferred versions, many other versions should be apparent to those skilled in the art. Therefore, the spirit and scope of the appended claims should not necessarily be limited to the description of the preferred versions contained herein.

What is claimed is:

1. A survival belt comprising a flexible strap having an engagement end and a buckle end, said flexible strap having a sealable container portion extending substantially between the engagement end and the buckle end.

2. The belt of claim 1 wherein the strap comprises two attached together segments, the sealable container portion being sandwiched between one segment and the other segment of the strap.

3. The belt of claim 2 wherein one segment of the strap has two open edges along the length thereof and a zipper attached to said edges and configured to draw the edges together in a sealing fashion when the zipper is closed and to release the edges apart when the zipper is open so as to provide access to an interior of the container portion.

4. The belt of claim 2 wherein one segment of the strap has two open edges along the length thereof adapted to be releasably locked together by a fastener comprising a hook strip and a loop strip attached to respective ones of said edges such that pressing the edges together causes the hook strip and loop strip to engage and lock together and drawing the edges apart causes the fastener to release the edges apart so as to provide access to an interior of the container portion.

5. The belt of claim 2 wherein the container portion contains a removable sheet.

6. The belt of claim 5 wherein the removable sheet comprises a water repellent relatively thin material.

7. The belt of claim 5 wherein the removable sheet comprises a heat insulating material.

8. The belt of claim 5 wherein the removable sheet comprises a heat repellent material.



9. The belt of claim 2 wherein the container portion is sized to receive and contain a relatively thin flexible implement.

10. The belt of claim 1 wherein the buckle end comprises a buckle attached to the flexible strap, the buckle defining a receptacle portion sized and adapted to store selected implements.

11. The belt of claim 10 wherein the receptacle portion includes a removable face plate configured to cover the receptacle portion in a sealing fashion.

12. The belt of claim 11 wherein the face plate includes a spring-loaded lock adapted to be releasably locked in place over the receptacle portion, comprising a spring anchored to the face plate, the spring having movable complimentary arms each arm having an end portion positioned to be in alignment with mating receiving apertures in the receptacle portion, said apertures adapted to receive respective end portions in a locking manner when the face plate is positioned to seal the receptacle portion.

13. The belt of claim 12 wherein the receptacle portion has a receiving orifice and the face plate includes a locking tab positioned to be in locking engagement with the orifice when the face plate is positioned to seal the receptacle portion.

14. The belt of claim 1 wherein the engagement end includes a series of apertures oriented along a length of the belt and wherein the buckle includes a locking hook positioned and sized to engage a selected aperture so as to cinch the belt to be secure about a wearer.

15. A survival belt comprising strap means for encircling a wearer, the strap means comprising a series of longitudi-

nally positioned openings located at one end of the strap means, buckle means located at the other end of the strap means and adapted to engage a selected one of the openings so as to secure the belt about a wearer, the buckle means comprising receptacle means for storing implements and detachable plate means for sealing engagement with a receptacle means to maintain the implements within the receptacle means, said plate means being detachable for providing access to the receptacle means and container means extending longitudinally along a portion of the belt for storing implements therein said container means including sealing means for sealing and unsealing the container means.

16. A survival belt comprising strap means for encircling a wearer, said strap means comprising a series of longitudinally positioned apertures located at one end of the strap means, buckle means located at the other end of the strap means and adapted to engage a selected one of the openings so as to secure the belt about a wearer and container means extending longitudinally along a portion of the strap means for storing implements therein said container means including sealing means for sealing and unsealing the container means.

17. A survival belt comprising strap means for cinching about a wearer, buckle means for releasable engagement with the strap means and container means extending along a portion of the strap means for storing implements therein, said container means including sealing means for sealing and unsealing the container means.

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