A portable storage container with a ground anchor device includes a storage container having a main body that defines an internal cavity. The storage container transitions between an open and closed configuration, and further includes a locking mechanism. The ground anchor secures the storage container onto the surface of the ground, and includes an upper shaft that is interposed between a handle and an auger. The ground anchor components are removably secured together, and each can be stored within the internal cavity of the storage container when disassembled.
STORAGE CONTAINER WITH GROUND ANCHOR

TECHNICAL FIELD

[0001] The present invention relates generally to the protection of valuables, and more particularly to a storage container having an integrated anchor mechanism.

BACKGROUND

[0002] The statements in this section merely provide background information related to the present disclosure and may not constitute prior art.

[0003] One problem that is commonly encountered by people across the globe is what to do with their valuables when spending extended periods of time outdoors. This is especially true while visiting the beach, camping or picnicking, for example, where no onsite facilities are available.

[0004] Although many people will simply leave any valuables behind, some items such as car keys, medicines, and/or identification cards, for example, may need to remain near the user at all times. Accordingly, users are often forced to attempt to conceal the location of these valuable items by placing them beneath a blanket, or hiding them within their shoes, for example. Unfortunately, these attempts are rarely successful at preventing such items from being found and stolen by a determined thief.

[0005] Although there are many types of lockboxes available for purchase on the open market, none of these items can protect a user that needs to leave valuable items in an unsecured and/or unattended area such as a beach or picnic location, as thieves can simply remove the entire lockbox, and gain entry to the same at a later time.

[0006] Accordingly, it would be beneficial to provide a locking storage container having a ground anchor that can prevent removal of the container itself, while simultaneously protecting any valuable items that are stored within.

SUMMARY OF THE INVENTION

[0007] The present invention is directed to a portable storage container with a ground anchor device. One embodiment of the present invention can include a storage container having a main body that defines an internal cavity. The storage container can transition between an open and closed configuration, and can be locked in the closed configuration via a locking mechanism. The ground anchor can function to secure the storage container onto the surface of the ground by digging into the ground itself. The ground anchor can include an upper shaft that is interposed between a handle and an auger.

[0008] In another embodiment, the ground anchor components can be removably secured together, and can be stored within the internal cavity of the storage container when disassembled.

[0009] In yet another embodiment of the present invention, the handle can include a shape and size that is capable of rotating 360 degrees when connected to the upper shaft, and located within the internal cavity.

[0010] This summary is provided merely to introduce certain concepts and not to identify key or essential features of the claimed subject matter.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] Presently preferred embodiments are shown in the drawings. It should be appreciated, however, that the invention is not limited to the precise arrangements and instrumentalties shown.

[0012] FIG. 1 is a perspective view of the storage container with ground anchor device that is useful for understanding the inventive concepts disclosed herein.

[0013] FIG. 2A is a perspective view of the main body of the storage container with ground anchor device, in accordance with one embodiment of the invention.

[0014] FIG. 2B is another perspective view of the main body of the storage container with ground anchor device, in accordance with one embodiment of the invention.

[0015] FIG. 3 is a front side view of the ground anchor of the storage container with ground anchor device, in accordance with one embodiment of the invention.

[0016] FIG. 4 is a perspective view of the storage container with ground anchor device in operation, in accordance with one embodiment of the invention.

[0017] FIG. 5 is another perspective view of the storage container with ground anchor device in operation, in accordance with one embodiment of the invention.

[0018] FIG. 6 is another perspective view of the storage container with ground anchor device in operation, in accordance with one embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

[0019] While the specification concludes with claims defining the features of the invention that are regarded as novel, it is believed that the invention will be better understood from a consideration of the description in conjunction with the drawings. As required, detailed embodiments of the present invention are disclosed herein; however, it is to be understood that the disclosed embodiments are merely exemplary of the invention which can be embodied in various forms.

[0020] Therefore, specific structural and functional details disclosed herein are not to be interpreted as limiting, but merely as a basis for the claims and as a representative basis for teaching one skilled in the art to variously employ the inventive arrangements in virtually any appropriately detailed structure. Further, the terms and phrases used herein are not intended to be limiting but rather to provide an understandable description of the invention.

[0021] As described herein, the term “removably secured,” “removably positioned,” and derivatives thereof shall be used to describe a situation wherein two or more objects are joined together in a non-permanent manner so as to allow the same objects to be repeatedly joined and separated. Likewise, identical reference numerals are used for like elements of the invention or elements of like function. For the sake of clarity, only those reference numerals are shown in the individual figures which are necessary for the description of the respective figure. For purposes of this description, the terms “upper,” “bottom,” “right,” “left,” “front,” “vertical,” “horizontal,” and derivatives thereof shall relate to the invention as oriented in FIG. 1.

[0022] FIGS. 1-6 illustrate various embodiments of a storage container with ground anchor device that is useful for understanding the inventive concepts disclosed herein.
As shown the device 10 can include, essentially, a locking container 20 and a ground anchor 30.

[0023] The main body can include any number of different shapes and sizes, and can function to receive and store an unlimited number of items, according to the wishes of a user. The main body can preferably be constructed from lightweight material such as a single mold of hardened injected plastic, for example, that is suitable for prolonged exposure to salt water and other such conditions. Of course, any number of other construction methodologies and/or materials such as aluminum, steel alloy, PVC, and/or composite materials, for example, are also contemplated.

[0024] As shown best in FIG. 2A, one embodiment of the storage container 20 can include a generally rectangular-shaped main body 21 having a plurality of upstanding walls such as the front wall 21a, a back wall 21b, and side walls 21c, and 21d. The main body also including a bottom wall 21e, and a top wall 21f, each of these walls defining an internal cavity 22 for receiving an item to be stored. The top wall 21f is hingedly connected to one of the front, back or side walls via a hinge 23, so as to transition the box between the open configuration shown in FIG. 2A, and the closed configuration shown in FIG. 2B.

[0025] As described herein, the term “plurality of upstanding walls” contemplates multiple individually constructed walls that are secured together, and a unitary wall such as a circle, for example that encompasses the bottom wall. In either instance, an aperture 24 can be positioned along the center portion of the bottom wall 21e. The aperture can include a shape and size that is suitable for receiving one or both of the upper shaft 31 and the auger 33 of the below described ground anchor 30.

[0026] The top wall can be secured to the main body via a locking mechanism 25. In the preferred embodiment, the locking mechanism can include a commercially available key operated cam lock. Turning of a key 5 results in commensurate angular rotation of an attached latch 25a which can engage a prong 25b or other such structure located along the inside facing portion of the top wall 21f.

[0027] FIG. 2B, illustrates another embodiment of the main body 20 wherein the locking mechanism 25 includes a combination lock having a plurality of buttons 25c and/or dials which must be engaged in a particular order to release 25d the internal locking mechanism. Combination locks and the associated components are well known in the art, and include U.S. Patent Application No. 2011/0226023, the contents of which are incorporated herein by reference. Of course, the device is not limited to the use of any particular locking mechanism, as any device capable of removably securing the top wall to one of the upstanding walls can also be utilized. One other example includes an external latch with removable padlock, for example.

[0028] In another embodiment, the main body can include a pair of openings 26 along one or more sides of the main body. Each of these openings can function to receive an elongated tether 27, chain or other such device. As shown, the ends of the tether can be locked together via a secondary locking mechanism 28 such as the illustrated conventional shackle lock, for example, so as to secure larger items to the outside of the main body. When so secured, the ground anchor 30 can also prevent these items from being stolen.

[0029] FIG. 3 is an exploded parts view of the ground anchor 30, in accordance with one embodiment. As shown, the ground anchor can include an elongated upper shaft member 31 that is connected to a handle 32 along the top end, and an auger 33 along the bottom end. In the preferred embodiment, one or both of the handle 32 and auger 33 can be detachable from the upper shaft 31.

[0030] Each of the upper shaft member 31, the handle 32 and the auger 33 can be constructed from a number of durable materials having a high torsional or shear stress resistance, such as plastic or steel alloy, for example, and that are suitable for prolonged exposure to adverse elements such as saltwater, for example. As shown, the cylindrical axis of the auger 33 can include a wrapped helical flighting 33a. The diameter of the upper shaft 31 and/or the auger 33 along with the width and pitch of the helical flighting 33a can be determined at a time of manufacture based on the type of terrain in which the device 10 will be used.

[0031] In either instance, the upper end of the shaft member 31a can be removably positioned within the bottom end of the handle 32a, and openings 31a1 and 32a1 can be aligned to receive a connector 34a such as the illustrated locking pin, for example. Likewise, the lower end of the shaft member 31b can be removably positioned within the top end of the auger 33b, and openings 31b1 and 33b1 can be aligned to receive another connector 34b such as the illustrated locking pin, for example.

[0032] Of course, other embodiments are contemplated wherein the end of the handle and/or auger are removably inserted within the upper shaft. Further, any number of different connectors that are capable of removably securing the illustrated items together can also be utilized herein. Several nonlimiting examples include, nut and bolt assemblies, embedded magnetic elements, thread and socket fittings and/or retractable protrusions along one element, for example.

[0033] In the preferred embodiment, the hand grip 32d can include a shape and length (shown horizontally in FIG. 3) that is suitable for rotating 360 degrees without contacting any of the upstanding walls, when the handle is positioned within the internal cavity 22 of the storage container. As will be described below, such a feature is important to allow a user to install the anchor onto the ground, and also prevents a thief from removing the device 10 by simply rotating the container, thereby driving the auger up from the ground. Additionally, it is preferred that both of the upper shaft member 31 and the auger 33 include dimensions that are suitable for allowing all of the elements 31, 32, and 33 to be simultaneously stored within the internal cavity 22 when the device is not being used. Such a feature advantageously ensures that parts do not become separated, and reduces the amount of storage space necessary to hold the device while it is not in use.

[0034] Of course, other embodiments are contemplated wherein the one or more of the members 31-33 do not include dimensions suitable for individually or cumulatively being stored within the cavity. Moreover, although described as being collapsible in nature, other embodiments are contemplated wherein the entire ground anchor 30 is constructed as a single non-removable member.

[0035] FIGS. 4-6 illustrate one embodiment of the storage container with ground anchor device 10 in operation. As shown, a user can position the bottom end of the auger 33c onto the ground G at a desirable location. Next, the user can rotate the handle 32 in the direction in which the helical flighting 33a wraps around the axis of the auger, as shown by arrow a. This rotational force will drive the anchor down
(arrow b) into the ground until the handle is adjacent to the ground surface. At this time, the handle 32 can be removed, and the aperture 24 of the storage container 20 can be placed through the upper end of the shaft 31a that is extending out of the ground (see arrow c). Finally, the user can reattach the handle 32, and insert any valuable items within the internal cavity 22, before closing the top wall 21f. Once the top wall is closed, the handle 32 prevents the container 20 (and any items stored within) from being moved or separated from the ground anchor. When removal of the device is required, the above steps can simply be reversed.

Accordingly, the above described storage container with ground anchor device 10 provides a novel means for creating a portable vault for storing valuable items which can be quickly and easily installed and removed from any outdoor location.

As described herein, one or more elements of the storage container with ground anchor device 10 can be secured together utilizing any number of known attachment means such as, for example, screws, glue, compression fittings and welds, among others. Moreover, although the above embodiments have been described as including separate individual elements, the inventive concepts disclosed herein are not so limiting. To this end, one of skill in the art will recognize that one or more individual elements such as the main body 20 and/or the ground anchor 30 may be formed together as continuous elements, either through manufacturing processes, such as welding, casting, or molding, or through the use of a singular piece of material milled or machined with the aforementioned components forming identifiable sections thereof.

As to a further description of the manner and use of the present invention, the same should be apparent from the above description. Accordingly, no further discussion relating to the manner of usage and operation will be provided.

The terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting of the invention. As used herein, the singular forms “a,” “an,” and “the” are intended to include the plural forms as well, unless the context clearly indicates otherwise. It will be further understood that the terms “comprises” and/or “comprising,” when used in this specification, specify the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components, and/or groups thereof.

The corresponding structures, materials, acts, and equivalents of all means or step plus function elements in the claims below are intended to include any structure, material, or act for performing the function in combination with other claimed elements as specifically claimed. The description of the present invention has been presented for purposes of illustration and description, but is not intended to be exhaustive or limited to the invention in the form disclosed. Many modifications and variations will be apparent to those of ordinary skill in the art without departing from the scope and spirit of the invention. The embodiment was chosen and described in order to best explain the principles of the invention and the practical application, and to enable others of ordinary skill in the art to understand the invention for various embodiments with various modifications as are suited to the particular use contemplated.

What is claimed is:

1. A ground anchoring storage container device, comprising:
   a storage container that includes
   a main body having a bottom wall, a plurality of upstanding walls, and a top wall defining an internal cavity,
   a hinge that is in communication with the top wall and one of the plurality of upstanding walls, said hinge functioning to transition the storage container between an open configuration and a closed configuration, and
   a first aperture that is disposed along a center portion of the bottom wall; and
   a ground anchor that includes
   an upper shaft member having a first end and a second end,
   a handle that is configured to engage the first end of the upper shaft member, and
   an auger that is configured to engage the second end of the upper shaft member,
   wherein the first aperture includes a shape and dimension that is suitable for receiving at least one of the upper shaft member and the auger.

2. The device of claim 1, wherein the handle of the ground anchor includes a shape and size that is suitable for rotating 360 degrees when the handle is positioned within the internal cavity and a portion of the upper shaft is positioned within the first aperture.

3. The device of claim 1, further comprising a locking mechanism that is in communication with the main body, said locking mechanism functioning to secure the container in the closed configuration when the locking mechanism is in a locked position.

4. The device of claim 3, wherein the locking mechanism comprises:
   a key operated cam lock and latch that are in communication with each of the lid and the one of the plurality of upstanding walls.

5. The device of claim 3, wherein the locking mechanism comprises:
   a combination lock and latch that are in communication with each of the lid and the one of the plurality of upstanding walls.

6. The device of claim 1, further comprising:
   a pair of apertures that are disposed along on of the upstanding walls.

7. The device of claim 6, further comprising:
   an elongated tether having a first and second end, said tether including a shape and size that is suitable for being positioned through each of the pair of apertures, and said first and second end being configured to receive a secondary locking mechanism.

8. The device of claim 1, wherein the handle is removably secured to the upper shaft of the ground anchor.

9. The device of claim 1, wherein the auger is removably secured to the upper shaft of the ground anchor.

10. The device of claim 1, wherein each of the handle and the auger are removably secured to the upper shaft of the ground anchor.

11. The device of claim 1, wherein the handle and auger are permanently secured to the upper shaft of the ground anchor.

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