A belt buckle incorporating a collapsible cup holder, wherein the cup holder is hidden in the passive configuration, the belt buckle having a cover member that pivots downward to form a base to support a beverage container and a retainer that pivots up to retain the body of the beverage container.
BELT BUCKLE CUP HOLDER

BACKGROUND OF THE INVENTION

[0001] This invention relates generally to the field of belt buckles, and more particularly to the field of belt buckles having structure that accomplishes a secondary function in addition to that of securing the belt about the wearer.

[0002] Belt buckles that perform functions in addition to that of securing the belt can be advantageous in that the utility of the device to the wearer is doubled, and examples of such belt buckles are known in the art. For example, U.S. Pat. No. 1,578,468 to Rankin shows a combination belt buckle and match box device, the buckle having a hinged cover that swings down to reveal a compartment to receive matches and a striker. U.S. Pat. No. 1,625,040 to Marcus, U.S. Pat. No. 1,878,792 to Marinsky and U.S. Pat. No. 4,113,157 to Woodbury each show a combination belt buckle and purse, the buckle having a hinged cover that opens to provide access to a compartment to receive coins or paper money. U.S. Pat. No. 2,182,194 to Blau shows a combination belt buckle and watch, where the watch is mounted to the interior of a hinged cover that is opened downward to reveal the watch. U.S. Pat. No. 6,360,391 to Goodall shows a combination belt buckle and bottle opener for removing crimped cups from bottles, the slotted opener being incorporated in a hinged faceplate.

[0003] In many circumstances where beverages are being consumed from cans, bottles, cups or similar containers there is no suitable flat surface on which to safely and securely place the beverage container. This is particularly true where the beverage consumption is occurring in a vehicle. For these circumstances, various means to retain the beverage container, typically referred to as cup holders, have been developed. For example, in most automobiles and other passenger vehicles cup holders shaped as cylindrical receptacles are provided in doors and center consoles to receive the beverage containers. Many times it is desirable to construct the cup holders in a manner which allows them to be collapsed into a smaller configuration, such that the cup holder can be recessed to be less visually and physically obstructive when the cup holder is not in use.

[0004] A common structure for a collapsing or foldable cup holder incorporates a buck plate member, a hinged cover that swings down to a position perpendicular to the buck plate member to form a base, and a set of hinged arms that swing up to a perpendicular position above the base, such that the beverage container can be placed within the arms and atop the base. Examples of such cup holder devices are shown in U.S. Pat. No. 4,828,211 to Mcconnell et al., U.S. Pat. No. 4,984,722 to Moore, U.S. Pat. No. 5,072,909 to Huang, U.S. Pat. No. 5,423,508 to Isengra et al., U.S. Pat. No. 5,603,477 to Duestch, U.S. Pat. No. 5,997,082 to Vincent et al., U.S. Pat. No. 6,095,471 to Huang, and U.S. Pat. No. Des. 355,337 to Eisenbraum et al. Some of these cup holder devices of these patents are fixedly mounted to the vehicle structure, while others provide for temporary and removable mounting, such as by hooks or suction cups.

[0005] In other circumstances, the beverage consumer is standing or walking and the beverage container must be continually held. It is known to provide non-collapsing cup holders that can be temporarily attached to the consumer's belt using a clip or hook structure, thereby allowing for hands-free retention of the container. Examples of such devices are shown in U.S. Pat. No. 4,708,273 to Grant, U.S. Pat. No. 5,740,951 to Jack, U.S. Pat. No. 6,045,017 to Connell (which does collapse for storage after removal from the belt), and U.S. Pat. No. 6,457,616 to Gagne. Drawbacks and problems associated with these devices include the facts that the cup holder is an independent accessory that must be at hand when the need for its use arises and that the cup holder may be easily dislodged, resulting in a spilled beverage. Many of the body-worn cup holders are not collapsible and therefore must be held by the user or must be worn when empty.

[0006] It is an object of this invention to provide a belt that incorporates a cup holder device, such that the device is worn by the consumer rather than being a hand-held and independent accessory that must be remembered by the user. It is a further object to provide such a device whereby the cup holder is securely retained on the body of the wearer, such that accidental spillage of the beverage container is reduced. It is a further object to provide such a device wherein the cup holder mechanism is collapsible and directly incorporated in the belt buckle, such that in the non-use, closed configuration the cup holder is hidden and only a decorative belt buckle is visible.

SUMMARY OF THE INVENTION

[0007] The invention is a combination belt buckle and cup holder device, wherein the cup holder mechanism is incorporated in the buckle in a manner whereby the cup holder is hidden when not in use, the cup holder mechanism being collapsible. The buckle is attached to a belt and comprises a back member, a hinged cover member and a hinged beverage retainer means. The back member is attached to a first belt end in known manner such that the free second belt end can be secured to or though the buckle and about the wearer's waist in known manner. The cover member swings down to a generally horizontal position and the beverage retainer means, such as a pair of curved arms with an open front, swings up to a generally horizontal position, such that a beverage container can be positioned atop the interior of the cover member and simultaneously secured by the beverage retainer means. After use, the retainer means is folded against the back member and the cover member is folded to cover the retainer means, there being a means to retain the cover member in relation to the back member. The face or router surface of the cover member may be provided with decorative elements.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. 1 is a perspective view of the belt buckle invention in the closed configuration.

[0009] FIG. 2 is a perspective view of the invention in the open or in-use configuration.

[0010] FIG. 3 is a side of the invention shown not attached to a belt for clarity.

DETAILED DESCRIPTION OF THE INVENTION

[0011] With reference to the drawings, the invention will now be described in detail with regard for the best mode and the preferred embodiment. In general, the invention is a belt
buckle incorporating a cup holder, the cup holder mechanism being collapsible such that it can be folded into a passive hidden configuration. For purposes of this disclosure, the term cup holder shall be taken as defining a device for retaining an open-topped or open beverage container in an upright position, where the term beverage container shall be taken as defining a generally cylindrical or slightly tapered cup, glass, can, bottle or similar liquid containing receptacle.

[0012] Belt buckle 10 is securely attached to a first end 92 of belt 91 by any suitable buckle attachment means 20, which may for example comprise a clamping mechanism well known in the art (not shown) or a generally C-shaped bar member 21 mounted to the rear of the buckle 10, a portion of the bar member 21 being retained within a closed loop 94 defining the first belt end 92, also a commonly known assembly and shown in the drawings. Typically, the bar member 21 extends from the rear of the belt buckle back member 11 sufficient distance to allow the free second end 93 of the belt 91 to be passed therethrough when the belt 91 is worn and fastened. Various means for securing the belt second end 93 about the waist of the wearer are known in the art and may be utilized. As shown in the drawings, one such means is simply a short belt hook or projection 16 that extends from the rear of the back member 11 to be received within the proper belt hole 95. Alternatively for example, the belt second end 93 may comprise a ring or loop that is secured on a hook member attached to the side of the buckle 10 (not shown), or vice versa.

[0013] The belt buckle 10 comprises in general cup holding means comprising a back member 11, a cover member 12 and a beverage container retainer means 20. The back member 11 is a relatively rigid panel, plate, case or similar body that resides relatively flat against the belt 91 in generally parallel manner when the belt 91 is being worn. The back member 11 as shown in the drawings is generally rectangular in configuration, but non-rectangular configurations are well within the scope of the invention. Attached to a lower portion or the bottom of the back member 11 is a pivoting cover member 12, the cover member 12 being joined to the back member 11 by cover pivot means 30 whereby the cover member 12 can be pivoted from a passive position generally parallel to the back member 11 down to a generally horizontal active position generally perpendicular to the back member 11. The cover member 12 comprises an external face 17, which may be provided with decorative elements 18, and an interior surface 19 that serves a base to receive and support the bottom of a beverage container. Preferably the interior surface 19 is relatively flat and/or provided with beverage container retaining features such as ridges, shoulders or the like. Means to releasably secure the cover member 12 to the back member 11 during the passive configuration are provided, and may comprise a friction fit between the components, mechanical interlocking, clasp mechanisms or any other suitable and equivalent construct.

[0014] The cover pivot means 30 may comprise a pair of ear members 31 disposed laterally on the lower portion of bottom of the back member 11, the ears 31 receiving pin members 32 extending from or passing through the lower portion or bottom of the cover member 12. The cover member 12 may be sized so as to extend beyond and encompass the perimeter of the back member 11, as shown in the drawings, equal the perimeter of the back member 11, or be smaller than the perimeter of the back member 11. The cover member 12 may be provided with a peripheral flange member 22 to better secure the beverage container by limiting lateral movement of the bottom of the beverage container.

[0015] The beverage container retainer means 13 is pivotally attached to the upper portion or top of the back member 11 in a hinged manner by retainer pivot means 40 such that the beverage container retainer means 13 can be pivoted from a passive position generally parallel to said back member 11 up into a generally horizontal active position perpendicular to the back member 11 and generally parallel to the cover member 12 in the active position. In the passive configuration, the beverage container retainer means 13 resides adjacent the back member 11 and between the back member 11 and the cover member 12, with the cover member 12 visually hiding or concealing the beverage container retainer means 13. Retainer pivot means 40 may comprise a pair of ear members 41 disposed laterally on the upper portion or top of the back member 11, the ears 41 receiving pin members 42 extending from or passing through the upper portion or top of the beverage container retainer means 30. The retainer means 30 may comprise a pair of opposing curved arm members 14, as shown, a ring member or alternative configurations that are capable of retaining and securing the beverage container in a manner whereby removal and insertion of the beverage container to and from the belt buckle 10 is readily accomplished. The arm members 14 may be fixed or adjustable in terms of shape and separation distance.

[0016] Collapsible cup holder assemblies having alternative or varying structures to the structures particularly described above are well known in the art and are represented by the example devices in U.S. Pat. No. 4,828,211 to McConnell et al., U.S. Pat. No. 4,984,722 to Moore, U.S. Pat. No. 5,072,909 to Huang, U.S. Pat. No. 5,423,508 to Isenga et al., U.S. Pat. No. 5,605,477 to Duestch, U.S. Pat. No. 5,997,082 to Vincent et al., U.S. Pat. No. 6,095,471 to Huang, and U.S. Pat. No. Des. 355,337 to Eisenbraun et al., the disclosures of which are expressly incorporated herein for the purposes of disclosing suitable folding mechanisms.

[0017] In the passive configuration, the invention presents the look of a conventional belt buckle, with the face 17 and any decorative elements 18 being presented outwardly to the viewer. When the cup holder functionality of the device is needed, the cover member 12 is first flipped downward away from the back member 11 and into the generally horizontal position. The beverage container retainer means 13, now exposed, is then flipped upward away from the back member 11 and into the generally horizontal position generally parallel to the interior surface 19 of the cover member 12. The retainer means 13 is positioned so as to reside a short distance above the cover member 12, such that the body of the beverage container is precluded from excessive lateral movement. Most preferably, the retainer means 13 and the cover member 12 are mounted onto the back member 11 so as to be separated as far as possible. Friction means, springs or other biasing means, or other mechanical constructs may be utilized to temporarily retain the cover member 12 and the beverage container retainer means in the active positions.

[0018] It is understood and contemplated that equivalents and substitutions for elements set forth above may be
obvious to those skilled in the art, and therefore the true scope and definition of the invention is to be as set forth in the following claims.

We claim:

1. A belt buckle comprising collapsible cup holder means, said cup holder means comprising a back member, a cover member and beverage container retainer means.

2. The belt buckle of claim 1, wherein said cover member is pivotally attached to said back member and said beverage container retainer means is pivotally attached to said back member.

3. The belt buckle of claim 2, wherein said cover member is attached to a lower portion of said back member and said beverage container retainer means is attached to an upper portion.

4. The belt buckle of claim 2, wherein said cover member pivots from a passive position generally parallel to said back member to an active position generally perpendicular to said back member, and wherein said beverage container retainer means pivots from a passive position generally parallel to said back member to an active position generally perpendicular to said back member.

5. The belt buckle of claim 4, wherein said beverage container retainer means is disposed between said back member and said cover member when said beverage container retainer means and said cover member are disposed in said passive position.

6. The belt buckle of claim 5, wherein said cover member contains said beverage container retainer member and said back member when said beverage container retainer means and said cover member are disposed in said passive position.

7. The belt buckle of claim 1, wherein said beverage container retainer means comprises a pair of arm members.

8. The belt buckle of claim 2, wherein said beverage container retainer means comprises a pair of arm members.

9. The belt buckle of claim 1, wherein said cover member comprises an interior surface and a peripheral flange member surrounding said interior surface.

10. A belt buckle in combination with a belt, said belt comprising a first end and a second end;

   said belt buckle comprising buckle attachment means for securing said belt buckle to said first end of said belt and collapsible cup holder means;

   said cup holder means comprising a back member, a cover member and beverage container retainer means.

11. The combination of claim 10, wherein said cover member is pivotally attached to said back member and said beverage container retainer means is pivotally attached to said back member.

12. The combination of claim 11, wherein said cover member is attached to a lower portion of said back member and said beverage container retainer means is attached to an upper portion.

13. The combination of claim 11, wherein said cover member pivots from a passive position generally parallel to said back member to an active position generally perpendicular to said back member, and wherein said beverage container retainer means pivots from a passive position generally parallel to said back member to an active position generally perpendicular to said back member.

14. The combination of claim 13, wherein said beverage container retainer means is disposed between said back member and said cover member when said beverage container retainer means and said cover member are disposed in said passive position.

15. The combination of claim 14, wherein said cover member contains said beverage container retainer member and said back member when said beverage container retainer means and said cover member are disposed in said passive position.

16. The combination of claim 10, wherein said belt buckle further comprises means to secure said second end of said belt.

17. A belt buckle comprising collapsible cup holder means, said cup holder means comprising a back member, a cover member and beverage container retainer means;

   wherein said cover member is pivotally attached to a lower portion of said back member and said beverage container retainer means is pivotally attached to an upper portion said back member;

   wherein said cover member pivots from a passive position generally parallel to said back member to an active position generally perpendicular to said back member, and wherein said beverage container retainer means pivots from a passive position generally parallel to said back member to an active position generally perpendicular to said back member;

   wherein said beverage container retainer means is disposed between said back member and said cover member when said beverage container retainer means and said cover member are disposed in said passive position; and

18. The belt buckle of claim 17, wherein said beverage container retainer member and said back member when said beverage container retainer means and said cover member are disposed in said passive position.

19. The belt buckle of claim 17, wherein said cover member comprises a pair of arm members.

20. The belt buckle of claim 17, further comprising buckle attachment means for securing said belt buckle to a belt.

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