Claims

1.

A method of manufacturing a container (10, 110, 210, 310, 410, 510, 710, 810, 910, 1010, 1110, 1210) which includes the steps of:

forming a wall of the container to include a medal retainer (35, 135, 235, 335, 435, 535, 735, 835, 935, 1035, 1135, 1235); and

retaining a medal (12, 112, 312, 412, 512, 612, 712, 812, 912, 1012, 1112, 1212) to the container by forming a portion (36, 136, 234, 336, 436, 536, 736, 836, 936, 1036, 1136, 1236) of the medal retainer of the container wall over a corresponding portion of the medal.

2.

The method set forth in claim 1 wherein the forming step includes forming a radially outwardly extending peg (34, 134, 434, 534, 734, 834) in a wall of the container, and the retaining step includes placing the medal over the peg and against the container wall and swaging the peg to form a head (36, 136, 436, 536, 736, 836, 936, 1036, 1236) on the peg to trap the medal between the head and the container wall so that the medal is non-removably retained to the container.

3.

The method set forth in claim 2 wherein the forming step includes forming a depression (28) in the wall of the container around the peg, and the retaining step includes placing the medal in the depression.

4.

The method set forth in claim 1 wherein the forming step includes forming a radially outwardly extending rim (134) in a wall of the container, and the retaining step includes placing the medal within the rim and against the container wall and swaging the rim over a radially outer edge of the medal to form a retaining flange (136) to trap the medal between the flange and the container wall so that the medal is non-removably retained to the container.

5.

The method set forth in claim 1 wherein the forming step includes sub-steps of forming a blank and then forming the container from the blank, and wherein the medal is insert molded to the blank during the blank forming step.

6.

The method set forth in claim 1 wherein the forming step includes sub-steps of forming a blank and then forming the container from the blank, and wherein the medal is insert molded to the container during the container forming step.

7.

The method set forth in claim 1 wherein the retaining step includes applying the medal to the container so that decorative indicia (26) on one side (24) of the medal faces outwardly and/or applying the medal to the container so that authentication indicia (32) on one side (30) of the medal faces inwardly.

8.

A container (10, 110, 210, 310, 410, 510, 710, 810, 910, 1010, 1110, 1210) produced by the method set forth in claim 1.

9.

A package (311, 411, 511, 611, 711, 811, 911, 1011, 1111) including a closure (342, 442, 542, 742, 842, 942, 1042, 1142) coupled to the container set forth in claim 8, and wherein the medal exhibits an initial state of a visual characteristic in an as-packaged state.

10.

A method of using the package set forth in claim 9, including initially opening the package, and wherein, responsive to the opening, the medal exhibits another state of the visual characteristic different from and irreversible to the initial state of the visual characteristic.

11.

A container (10, 110, 210, 310, 410, 510, 710, 810, 910, 1010, 1110, 1210) that includes a wall and a medal (12, 112, 312, 412, 512, 612, 712, 812, 912, 1012, 1112, 1212) retained to the wall by container material (36, 136, 234, 336, 436, 536, 736, 836, 936, 1036, 1136, 1236) of integral one-piece construction with the wall and extending over at least a portion of the medal.

12.

The container set forth in claim 11 wherein the medal is disposed within a pocket in the glass wall and retained by container material (36, 136) extending over an edge of the medal.

13.

The container set forth in claim 12 wherein the medal is molded into the glass wall such that the medal is retained by after-mold deformation of at least a portion of a periphery (134) of the pocket over the medal so that the medal is non-removably retained to the container.

14.

The container set forth in claim 11 wherein the medal has an aperture (38), and the wall includes a portion (36, 336, 436, 536, 736, 836, 936, 1036) received through the aperture and extending over at least a portion of the medal to retain the medal on the wall so that the medal is non-removably retained to the container.

15.

The container set forth in claim 11 wherein the medal has an inward surface (30) facing the container and having an authentication code (32).

16.

A package (311, 411, 511, 611, 711, 811, 911, 1011, 1111) that includes the container set forth in claim 11 and a closure (342, 442, 542, 742, 842, 942, 1042, 1142) coupled to a neck finish (20, 120, 320, 520, 720, 1020) of the container, and wherein the medal is responsive to a change associated with the closure relative to the container.

17.

The package set forth in claim 16, wherein the closure sealingly covers at least a portion of the medal, which, upon contact with air, is adapted irreversibly to change a characteristic of the medal that is visible from outside of the container to indicate to a user that the package has been used.

18.

The package set forth in claim 16, that includes a sensor (456, 556, 856) to detect removal of the closure from the container, and a power source (454, 554, 854) coupled to the sensor.

19.

The package set forth in claim 18, wherein the medal carries reactants (452) that ignite upon receiving electricity from the power source.

20.

The package set forth in claim 18, that includes an ultraviolet (UV) light source 560, wherein the closure carries a sensor activator (562) that passes by the sensor during closure removal to activate the sensor and thereby discharge electricity from the power source to the UV light source, and wherein the medal carries an electrochromic material that changes at least one of color or opacity upon the UV light source receiving electricity from the power source so as to indicate use of the package.

21.

The package set forth in claim 18, wherein the medal is an electromagnetic device (812).

22.

The package set forth in claim 21, wherein the medal includes:

a first member (870) coupled to the container and including first and second portions (874, 875) having appearances different from one another and including a first magnetic element (871), and

a second member (872) coupled to the container and disposed radially outward of the first member such that the first member is positioned between the second member and the container, and including a second magnetic element (873) and at least one window (876) to provide visible access to the first portion of the first member in an as-packaged state of the package to provide an indication that the package is authentic and has not been opened,

wherein, upon receiving electricity from the power source, the first magnetic element is energized and attracts the second magnetic element to cause relative movement between the first and second members and reorient the at least one window with respect to the first member to expose the second portion of the first member to provide an indication that the package has been opened.

23.

The package set forth in claim 16, wherein the medal extends axially into the closure, and the closure includes a cutter (768) that severs the medal upon removal of the closure.

24.

The package set forth in claim 16, wherein the closure includes a cam (978), and the medal extends axially to axially overlap the cam, wherein removal of the closure causes the cam to impose an increasing force on the medal and on the retainer to fracture the retainer and free the medal from the container.

25.

The package set forth in claim 16, wherein the medal extends axially and includes an axial end portion (1166) located between the closure and the container and covered by the closure, wherein removal of the closure renders accessible the axial end portion of the medal to facilitate removal thereof from the container.

26.

The package set forth in claim 16, wherein the medal is coupled to the rest of the package by a flaccid loop (1080) coupled to the medal and having a portion captured between the closure and the container, wherein removal of the closure renders accessible and removable the flaccid loop.

27.

A container (1210) that includes:

a wall; and

a medal (1212) retained to the wall by a retainer (1235) of integral one-piece construction with the wall and including a portion (1236) extending over the medal, wherein the medal and one or more portions of the container adjacent the medal have a shared unique appearance.

28.

The container set forth in claim 27, wherein the shared unique appearance includes a common continuous aesthetic pattern over both the medal and the one or more portions of the container.

29.

The container set forth in claim 27, wherein the shared unique appearance includes common continuous indicia over both the container and the medal.

30.

A package (1011) that includes:

a container (1010);

a closure (1042) coupled to the container;

a flaccid loop (1080) coupled between the closure and the container; and

a medal (1012) coupled to the flaccid loop.

31.

The package of claim 30, wherein the medal is retained to a wall of the container by container material (1036) of integral one-piece construction with the wall and extending over at least a portion of the medal.

32.

The package of claim 30, wherein the flaccid loop is a chain necklace.

Claims

1.

A method of manufacturing a container (10, 110, 210, 310, 410, 510, 710, 810, 910, 1010, 1110, 1210) which includes the steps of:

forming a wall of the container to include a medal retainer (35, 135, 235, 335, 435, 535, 735, 835, 935, 1035, 1135, 1235); and

retaining a medal (12, 112, 312, 412, 512, 612, 712, 812, 912, 1012, 1112, 1212) to the container by forming a portion (36, 136, 234, 336, 436, 536, 736, 836, 936, 1036, 1136, 1236) of the medal retainer of the container wall over a corresponding portion of the medal.

2.

The method set forth in claim 1 wherein the forming step includes forming a radially outwardly extending peg (34, 134, 434, 534, 734, 834) in a wall of the container, and the retaining step includes placing the medal over the peg and against the container wall and swaging the peg to form a head (36, 136, 436, 536, 736, 836, 936, 1036, 1236) on the peg to trap the medal between the head and the container wall so that the medal is non-removably retained to the container.

3.

The method set forth in claim 2 wherein the forming step includes forming a depression (28) in the wall of the container around the peg, and the retaining step includes placing the medal in the depression.

4.

The method set forth in claim 1 wherein the forming step includes forming a radially outwardly extending rim (134) in a wall of the container, and the retaining step includes placing the medal within the rim and against the container wall and swaging the rim over a radially outer edge of the medal to form a retaining flange (136) to trap the medal between the flange and the container wall so that the medal is non-removably retained to the container.

5.

The method set forth in claim 1 wherein the forming step includes sub-steps of forming a blank and then forming the container from the blank, and wherein the medal is insert molded to the blank during the blank forming step.

6.

The method set forth in claim 1 wherein the forming step includes sub-steps of forming a blank and then forming the container from the blank, and wherein the medal is insert molded to the container during the container forming step.

7.

The method set forth in claim 1 wherein the retaining step includes applying the medal to the container so that decorative indicia (26) on one side (24) of the medal faces outwardly and so that authentication indicia (32) on another side (30) of the medal faces inwardly.

8.

A container (10, 110, 210, 310, 410, 510, 710, 810, 910, 1010, 1110, 1210) produced by the method set forth in claim 1, wherein the medal is adapted to exhibit an initial state of a visual characteristic and to exhibit another state of the visual characteristic different from and irreversible to the initial state of the visual characteristic.

9.

A package (311, 411, 511, 611, 711, 811, 911, 1011, 1111) including a closure (342, 442, 542, 742, 842, 942, 1042, 1142) coupled to the container set forth in claim 8, and wherein the medal exhibits the initial state of a visual characteristic in an as-packaged state.

10.

A method of using the package set forth in claim 9, including initially opening the package, and wherein, responsive to the opening, the medal exhibits the other state of the visual characteristic different from and irreversible to the initial state of the visual characteristic.

11.

A container (10, 110, 210, 310, 410, 510, 710, 810, 910, 1010, 1110, 1210) that includes a wall and a medal (12, 112, 312, 412, 512, 612, 712, 812, 912, 1012, 1112, 1212) retained to the wall by container material (36, 136, 234, 336, 436, 536, 736, 836, 936, 1036, 1136, 1236) of integral one-piece construction with the wall and extending over at least a portion of the medal.

12.

The container set forth in claim 11 wherein the medal is disposed within a pocket in the wall and retained by container material (36, 136) extending over an edge of the medal.

13.

The container set forth in claim 12 wherein the medal is non-removably retained to the container.

14.

The container set forth in claim 11 wherein the medal has an aperture (38), and the wall includes a portion (36, 336, 436, 536, 736, 836, 936, 1036) received through the aperture and extending over at least a portion of the medal to retain the medal on the wall so that the medal is non-removably retained to the container.

15.

The container set forth in claim 11 wherein the medal has an inward surface (30) facing the container and having an authentication code (32).

16.

A package (311, 411, 511, 611, 711, 811, 911, 1011, 1111) that includes the container set forth in claim 11 and a closure (342, 442, 542, 742, 842, 942, 1042, 1142) coupled to a neck finish (20, 120, 320, 520, 720, 1020) of the container, and wherein the medal is responsive to a change associated with the closure relative to the container.

17.

The package set forth in claim 16, wherein the closure sealingly covers at least a portion of the medal, which, upon contact with air, is adapted irreversibly to change a characteristic of the medal that is visible from outside of the container to indicate to a user that the package has been used.

18.

The package set forth in claim 16, that includes a sensor (456, 556, 856) to detect removal of the closure from the container, and a power source (454, 554, 854) coupled to the sensor.

19.

The package set forth in claim 18, wherein the medal carries reactants (452) that ignite upon receiving electricity from the power source.

20.

The package set forth in claim 18, that includes an ultraviolet (UV) light source 560, wherein the closure carries a sensor activator (562) that passes by the sensor during closure removal to activate the sensor and thereby discharge electricity from the power source to the UV light source, and wherein the medal carries an electrochromic material that changes at least one of color or opacity upon the UV light source receiving electricity from the power source so as to indicate use of the package.

21.

The package set forth in claim 18, wherein the medal is an electromagnetic device (812).

22.

The package set forth in claim 21, wherein the medal includes:

a first member (870) coupled to the container and including first and second portions (874, 875) having appearances different from one another and including a first magnetic element (871), and

a second member (872) coupled to the container and disposed radially outward of the first member such that the first member is positioned between the second member and the container, and including a second magnetic element (873) and at least one window (876) to provide visible access to the first portion of the first member in an as-packaged state of the package to provide an indication that the package is authentic and has not been opened,

wherein, upon receiving electricity from the power source, the first magnetic element is energized and attracts the second magnetic element to cause relative movement between the first and second members and reorient the at least one window with respect to the first member to expose the second portion of the first member to provide an indication that the package has been opened.

23.

The package set forth in claim 16, wherein the medal extends axially into the closure, and the closure includes a cutter (768) that severs the medal upon removal of the closure.

24.

The package set forth in claim 16, wherein the closure includes a cam (978), and the medal extends axially to axially overlap the cam, wherein removal of the closure causes the cam to impose an increasing force on the medal and on the retainer to fracture the retainer and free the medal from the container.

25.

The package set forth in claim 16, wherein the medal extends axially and includes an axial end portion (1166) located between the closure and the container and covered by the closure, wherein removal of the closure renders accessible the axial end portion of the medal to facilitate removal thereof from the container.

26.

The package set forth in claim 16, wherein the medal is coupled to the rest of the package by a flaccid loop (1080) coupled to the medal and having a portion captured between the closure and the container, wherein removal of the closure renders accessible and removable the flaccid loop.

27.

A container (1210) that includes:

a wall; and

a medal (1212) retained to the wall by a retainer (1235) of integral one-piece construction with the wall and including a portion (1236) extending over the medal, wherein the medal and one or more portions of the container adjacent the medal have a shared appearance that provides an anti-counterfeit measure, and that includes at least one of a common continuous indicia over both the container and the medal or a common continuous aesthetic pattern over both the medal and the one or more portions of the container.

28.

The container set forth in claim 27, wherein the common continuous aesthetic pattern includes a wavy line pattern over both the medal and the one or more portions of the container.

29.

The container set forth in claim 27, wherein the common continuous indicia at least one of a serial number or a phrase over both the container and the medal.

30.

A package (1011) that includes:

a food or beverage container (1010);

a closure (1042) coupled to the container;

a flaccid loop (1080) coupled between the closure and the container; and

a medal (1012) coupled to the flaccid loop.

31.

The package of claim 30, wherein the medal is retained to a wall of the container by container material (1036) of integral one-piece construction with the wall and extending over at least a portion of the medal.

32.

The package of claim 30, wherein the flaccid loop is a chain necklace.

Claims

1. A method of manufacturing a container (10, 110, 210, 310, 410, 510, 710, 810, 910, 1010, 1110, 1210) which includes the steps of:

forming a wall of the container to include a medal retainer (35, 135, 235, 335, 435, 535, 735, 835, 935, 1035, 1135, 1235); and

retaining a medal (12, 112, 312, 412, 512, 612, 712, 812, 912, 1012, 1112, 1212) to the container by forming a portion (36, 136, 234, 336, 436, 536, 736, 836, 936, 1036, 1136, 1236) of the medal retainer of the container wall over a corresponding portion of the medal, wherein the step of forming a wall of the container includes forming a radially outwardly extending peg (34, 134, 434, 534, 734, 834) in a wall of the container, and the retaining step includes placing the medal over the peg and against the container wall and swaging the peg to form a head (36, 136, 436, 536, 736, 836, 936, 1036, 1236) on the peg to trap the medal between the head and the container wall so that the medal is non-removably retained to the container.

2. The method set forth in claim 1 wherein the step of forming a wall of the container includes forming a depression (28) in the wall of the container around the peg, and the retaining step includes placing the medal in the depression.

3. The method set forth in claim 1 wherein the step of forming a wall of the container includes forming a radially outwardly extending rim (134) in a wall of the container, and the retaining step includes placing the medal within the rim and against the container wall and swaging the rim over a radially outer edge of the medal to form a retaining flange (136) to trap the medal between the flange and the container wall so that the medal is non-removably retained to the container.

4. The method set forth in claim 1 wherein the step of forming a wall of the container includes sub-steps of forming a blank and then forming the container from the blank, and wherein the medal is insert molded to the blank during the blank forming step.

5. The method set forth in claim 1 wherein the step of forming a wall of the container includes sub-steps of forming a blank and then forming the container from the blank, and wherein the medal is insert molded to the container during the container forming step.

6. The method set forth in claim 1 wherein the retaining step includes applying the medal to the container so that decorative indicia (26) on one side (24) of the medal faces outwardly and so that authentication indicia (32) on another side (30) of the medal faces inwardly.

7. A container (10, 110, 210, 310, 410, 510, 710, 810, 910, 1010, 1110, 1210) produced by the method set forth in claim 1, wherein the medal is adapted to exhibit an initial state of a visual characteristic and to exhibit another state of the visual characteristic different from and irreversible to the initial state of the visual characteristic.

8. A package (311, 411, 511, 611, 711, 811, 911, 1011, 1111) including a closure (342, 442, 542, 742, 842, 942, 1042, 1142) coupled to the container set forth in claim 7, and wherein the medal exhibits the initial state of a visual characteristic in an as-packaged state.

9. A method of using the package set forth in claim 8, including initially opening the package, and wherein, responsive to the opening, the medal exhibits the other state of the visual characteristic different from and irreversible to the initial state of the visual characteristic.

10. A package (311, 411, 511, 611, 711, 811, 911, 1011, 1111) that includes:

a container (10, 110, 210, 310, 410, 510, 710, 810, 910, 1010, 1110, 1210) that includes a wall and a medal (12, 112, 312, 412, 512, 612, 712, 812, 912, 1012, 1112, 1212) retained to the wall by container material (36, 136, 234, 336, 436, 536, 736, 836, 936, 1036, 1136, 1236) of integral one-piece construction with the wall and extending over at least a portion of the medal; and

a closure (342, 442, 542, 742, 842, 942, 1042, 1142) coupled to a neck finish (20, 120, 320, 520, 720, 1020) of the container, and wherein the medal is responsive to a change associated with the closure relative to the container,

wherein the package includes a sensor (456, 556, 856) to detect removal of the closure from the container, and a power source (454, 554, 854) coupled to the sensor.

11. The package set forth in claim 10, wherein the closure sealingly covers at least a portion of the medal, which, upon contact with air, is adapted irreversibly to change a characteristic of the medal that is visible from outside of the container to indicate to a user that the package has been used.

12. The package set forth in claim 10 wherein the medal is disposed within a pocket in the glass wall and retained by container material (36, 136) extending over an edge of the medal.

13. The package set forth in claim 12 wherein the medal is non-removably retained to the container.

14. The package set forth in claim 10 wherein the medal has an aperture (38), and the wall includes a portion (36, 336, 436, 536, 736, 836, 936, 1036) received through the aperture and extending over at least a portion of the medal to retain the medal on the wall so that the medal is non-removably retained to the container.

15. The package set forth in claim 10 wherein the medal has an inward surface (30) facing the container and having an authentication code (32).

16. The package set forth in claim 10, wherein the medal carries reactants (452) that ignite upon receiving electricity from the power source.

17. The package set forth in claim 10, wherein the medal carries an electrochromic material that changes at least one of color or opacity upon the UV light source receiving electricity from the power source so as to indicate use of the package.

18. The package set forth in claim 10, wherein the medal is an electromagnetic device (812).

19. The package set forth in claim 18, wherein the medal includes:

a first member (870) coupled to the container and including first and second portions (874, 875) having appearances different from one another and including a first magnetic element (871), and

a second member (872) coupled to the container and disposed radially outward of the first member such that the first member is positioned between the second member and the container, and including a second magnetic element (873) and at least one window (876) to provide visible access to the first portion of the first member in an as-packaged state of the package to provide an indication that the package is authentic and has not been opened,

wherein, upon receiving electricity from the power source, the first mag-netic element is energized and attracts the second magnetic element to cause relative movement between the first and second members and reorient the at least one window with respect to the first member to expose the second portion of the first member to provide an indication that the package has been opened.

20. The package set forth in claim 10, wherein the medal extends axially into the closure, and the closure includes a cutter (768) that severs the medal upon removal of the closure.

21. The package set forth in claim 10, wherein the closure includes a cam (978), and the medal extends axially to axially overlap the cam, wherein removal of the closure causes the cam to impose an increasing force on the medal and on the retainer to fracture the retainer and free the medal from the container.

22. The package set forth in claim 10, wherein the medal extends axially and includes an axial end portion (1166) located between the closure and the container and covered by the closure, wherein removal of the closure renders accessible the axial end portion of the medal to facilitate removal thereof from the container.

23. The package set forth in claim 10, wherein the medal is coupled to the rest of the package by a flaccid loop (1080) coupled to the medal and having a portion captured between the closure and the container, wherein removal of the closure renders accessible and removable the flaccid loop.

24. A container (1210) that includes:

a wall; and

a medal (1212) retained to the wall by a retainer (1235) of integral one-piece construction with the wall and including a portion (1236) extending over the medal, wherein the medal and one or more portions of the container adjacent the medal have a shared appearance that provides an anti-counterfeit measure and that includes at least one of a common continuous indicia over both the container and the medal or a common continuous aesthetic pattern over both the medal and the one or more portions of the container.

25. The container set forth in claim 24, wherein the common continuous aesthetic pattern includes a wavy pattern over both the medal and the one or more portions of the container.

26. The container set forth in claim 24, wherein the common continuous indicia includes at least one of a serial number or a phrase over both the container and the medal.

27. A package (1011) that includes:

a food or beverage container (1010);

a closure (1042) coupled to the container;

a flaccid loop (1080) coupled between the closure and the container; and

a medal (1012) adapted to be non-removably retained to the container coupled to the flaccid loop.

28. The package of claim 27, wherein the medal is retained to a wall of the container by container material (1036) of integral one-piece construction with the wall and extending over at least a portion of the medal.

29. The package of claim 27, wherein the flaccid loop is a chain necklace.

30. The package set forth in claim 10, that includes an ultraviolet (UV) light source 560, wherein the closure carries a sensor activator (562) that passes by the sensor during closure removal to activate the sensor and thereby discharge electricity from the power source to the UV light source.

31. A package comprising:

a container including a wall having a medal retainer including a portion overlying a corresponding portion of a medal; and

a closure coupled to the container,

wherein the medal exhibits an initial state of a visual characteristic in an as-packaged state, and wherein, responsive to opening of the package, the medal exhibits another state of the visual characteristic different from and irreversible to the initial state of the visual characteristic.

32. A container composed of glass that includes a wall having a pocket, and a medal composed of metal and retained to the wall by container material of integral one-piece construction with the wall and extending over at least a portion of the medal, wherein the medal is retained by after-mold deformation of at least a portion of a periphery of the pocket over the medal so that the medal is non-removably retained to the container, wherein the medal has an aperture, and the wall includes a portion received through the aperture and extending over at least a portion of the medal to retain the medal on the wall so that the medal is non-removably retained to the container.

33. A package that includes

a container including a wall and a medal retained to the wall by container material of integral one-piece construction with the wall and extending over at least a portion of the medal; and

a closure coupled to a neck finish of the container, and wherein the medal is responsive to a change associated with the closure relative to the container.

34. The package set forth in claim 33, wherein the closure sealingly covers at least the portion of the medal, which, upon contact with air, is adapted irreversibly to change a characteristic of the medal that is visible from outside of the container to indicate to a user that the package has been used.

35. The package set forth in claim 33, that includes a sensor to detect removal of the closure from the container, and a power source coupled to the sensor and in electrical communication with the medal.