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(54) **COMBINATION BOTTLE CAP AND STOPPER**

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(57) **ABSTRACT**

A combination bottle cap and stopper is provided. A pin is embedded in the stopper and adhered to the cap to provide for a one piece closure on a bottle. The combination allows for a combination of seals including between the bottle cap and bottle top, and the stopper and the bottle neck. This combination of seals allows for greater efficacy in the sealing of bottles, especially wine bottles.

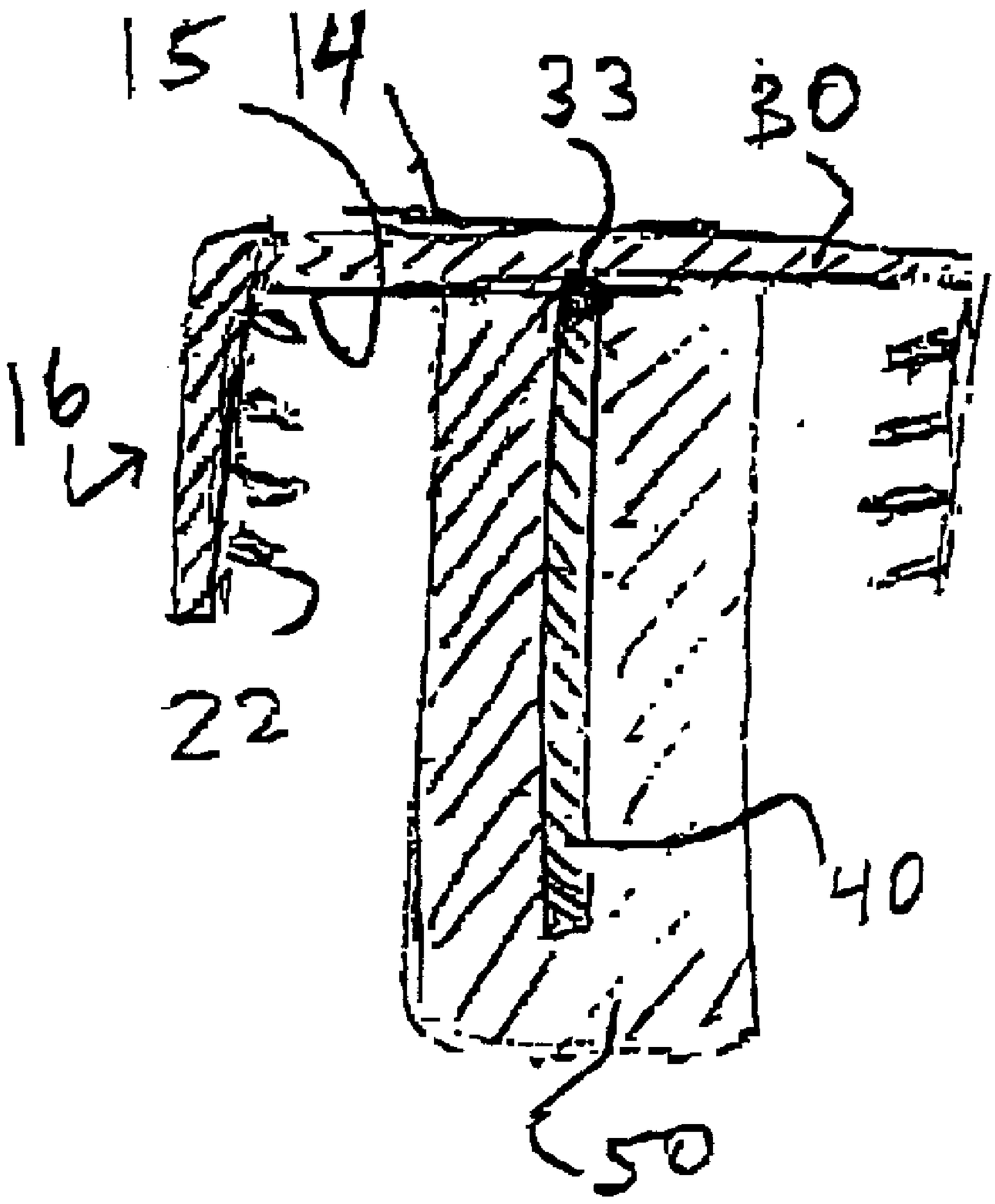


Fig 1

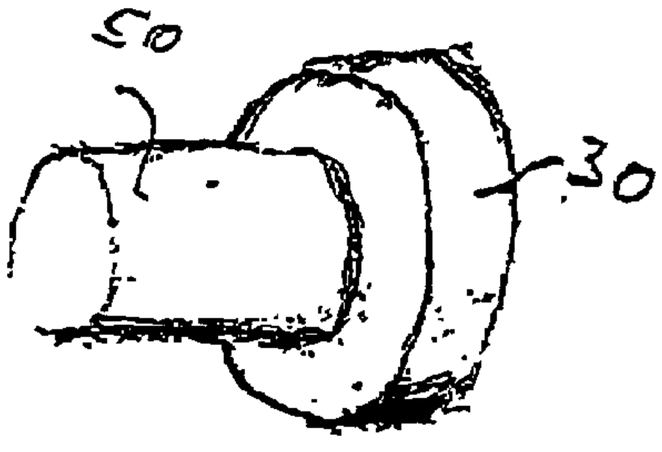


Fig 3

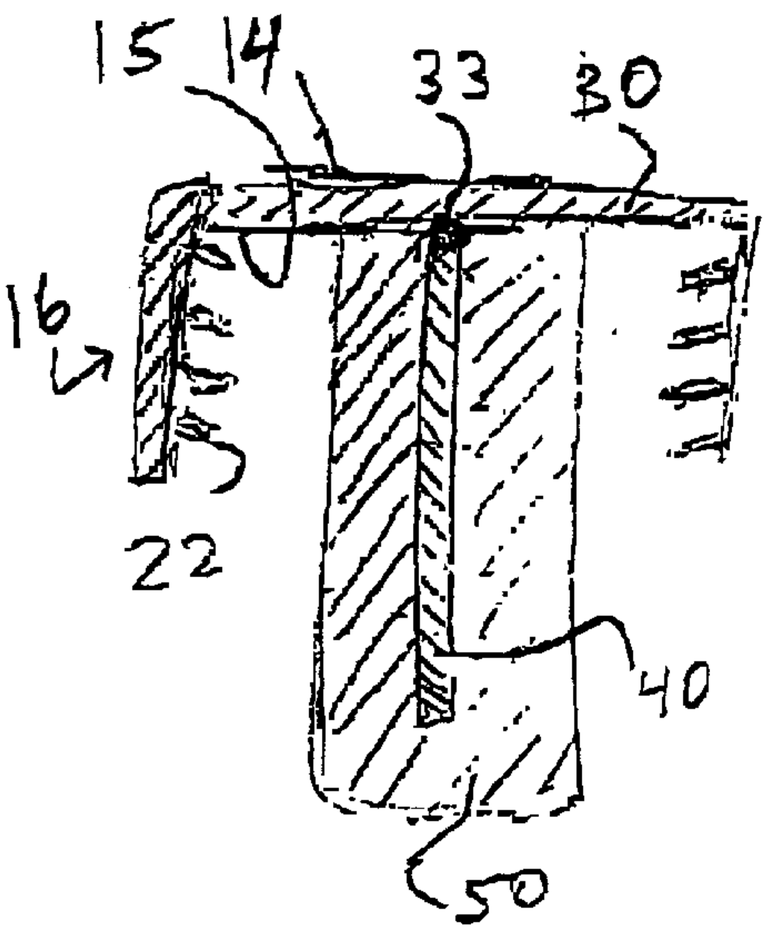


Fig 2

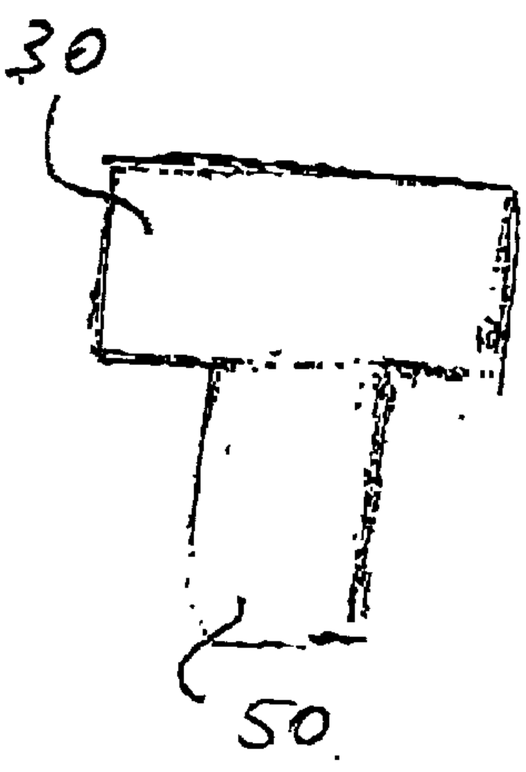


Fig 4

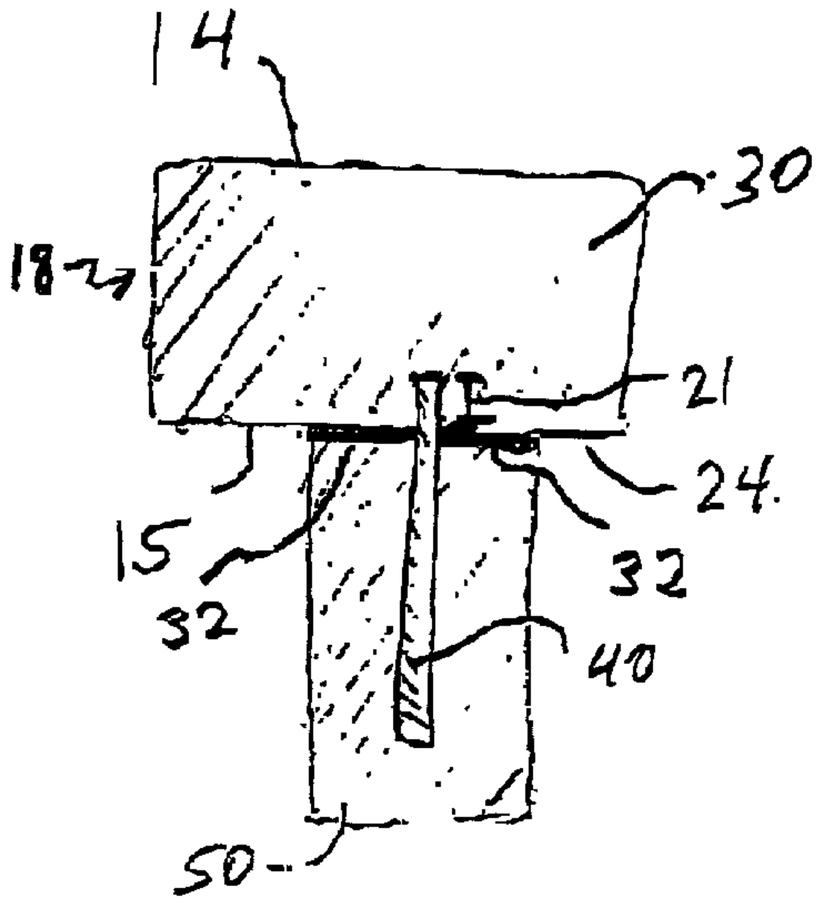


Fig 5

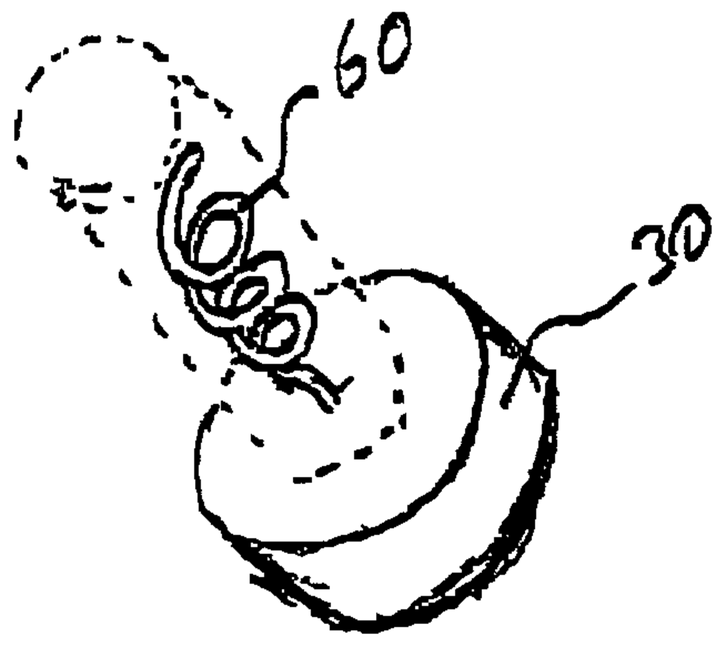


Fig 5

Fig 6

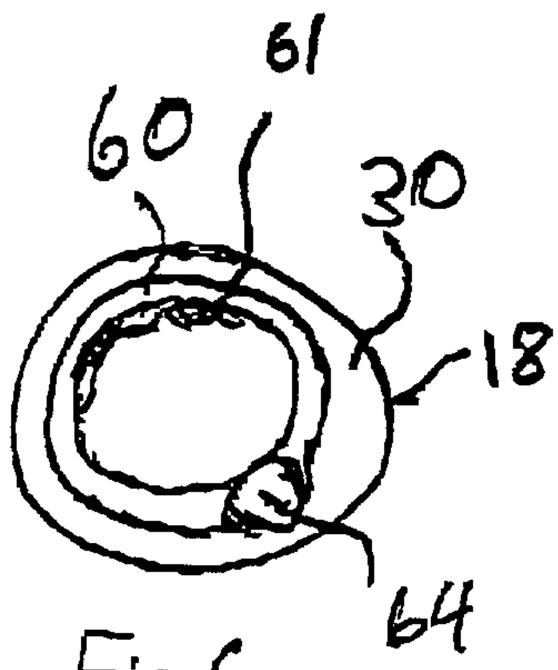


Fig 6

COMBINATION BOTTLE CAP AND STOPPER

BACKGROUND OF THE INVENTION

[0001] Wine and other liquids are often stored in bottles for a long duration, and various methods of sealing the bottle are well known. However, some liquids can be stored for many years and the life span of a traditional cork is about 25 years.

[0002] To preserve the wine, it is desirable to keep the bottle sealed in order to inhibit oxidation of the wine.

[0003] Many wine bottles are sealed with a cork closure and are often covered with a foil. It has been known for years that the traditional corking method has drawbacks. The corks may dry and crumble, as well as allow oxygen to seep into the bottle over time.

[0004] A defective cork may result in oxidation of the wines, thereby affecting the wine's flavor and aroma, making it less desirable for sale or consumption. Additionally if a wine is not consumed in a short period of time after the cork has been removed, it may also lose flavor and aroma.

[0005] Several types of closures have been use in the wine industry, such as screw top caps and the synthetic cork made of a high grade thermoplastic. These closures work well for sealing the bottles, but they have been rejected by a part of the industry because of their association with lower quality wines.

[0006] Accordingly, there is a need for an improved closure device to seal bottles with a cork.

SUMMARY OF THE INVENTION

[0007] In accordance with the invention, a combination bottle stopper and bottle cap comprising a cap having a top and underside, a pin having a length, a first end, and a second end, and a stopper having a height, the first end of said pin fixedly adhesively adhered to underside of said cap, the second end of said pin inserted in said stopper, the length of said pin less than the height of said stopper is provided.

[0008] Alternatively, the cap is adhered to the cap by a pin that may be in the shaped of a corkscrew.

[0009] Alternatively, the cap may be threaded to engage a threaded bottle.

[0010] Alternatively, the cap may have a pull-tab. The pull-tab will be shaped to facilitate a finger grip.

[0011] Alternatively, the cap may also be adhered to the stopper via an adhesive substance such as a glue or other material that is familiar to those skilled in the art.

[0012] Alternatively, the cap may be made of various materials including plastic, metal, or other like materials that are familiar to those skilled in the art.

[0013] Alternatively, the stopper may be made of suitable materials including natural rubber, plastic, cork, or like materials that are familiar to those skilled in the art.

[0014] Alternatively, the pin should be made of a suitable material such as a relatively inflexible plastic or metal familiar to those skilled in the art.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] **FIG. 1** is a perspective view of the cap and stopper in accordance with the invention;

[0016] **FIG. 2** is a side view of the cap and stopper in accordance with an embodiment of the present invention;

[0017] **FIG. 3** is a sectional view of the cap and stopper in accordance with an embodiment of the present invention;

[0018] **FIG. 4** is a sectional view of the cap and stopper in accordance with still another embodiment of the present invention;

[0019] **FIG. 5** is a cut-away view of the cap and stopper in accordance with still another embodiment of the present invention; and

[0020] **FIG. 6** is a top view of the cap in accordance with still another embodiment of the present invention.

DESCRIPTION OF SPECIFIC EMBODIMENTS

[0021] Referring to **FIGS. 1 and 2**, a cap **30** and stopper **50** are provided. The cap **30** has a top **14** and an underside **15** which is flush with a stopper **50**.

[0022] Referring to **FIG. 3**, the cap **30** may have threads **22** to engage a threaded bottle top (not shown). A pin **40** is embedded in the stopper **50** and adhered to the underside **15** of the cap **30**.

[0023] Referring to **FIG. 4**, the cap **30** may be of solid construction. A pin **40** is embedded in the stopper **50**.

[0024] Referring to **FIG. 5**, the pin **40** may be corkscrew shaped **60**. The corkscrew shape **60** allows the cap **30** to have a stronger adherence Referring to **FIG. 6, a** pull tab **60** is attached to cap **30** to facilitate removal of the cap **30** and the stopper **50**.

[0025] In an embodiment of the present invention, a combination cap **30** and stopper **50** are used to seal a threaded bottle (not shown). The combination bottle cap and stopper allows for a combination seal comprising a stopper seal between the stopper **40** and the bottle neck (not shown) and a cap seal between the threaded cap **16** a threaded bottle top (not shown).

[0026] This combination seal provides for a more efficient seal than either a threaded cap alone or a stopper alone.

[0027] The threaded cap **16** may be unscrewed from the bottle threads. At the same time as the threaded cap **16** is being displaced, the stopper **30** is removed because it is attached to the base **15** of the threaded cap **16**. The means for attachment includes a pin **40** embedded into the stopper **50** and attached to the cap with an adhesive **33**.

[0028] After dispensing with liquids contained within the bottle, the stopper **40** may then be re-inserted in the bottle neck. When the cap threads **22** contact the threaded bottle top, the threaded cap may then be rotated to create a more efficient re-closure.

[0029] The combination seal provides for a more efficient seal than either a cap alone or a stopper alone. The combination threaded cap and stopper provides for a more efficient method to re-seal a opened bottle.

[0030] In addition, the stopper **50** may also be adhered to the threaded cap **16** with an adhesive **32**. In addition, the pin **40** may also be embedded in the cap **30**. In addition, the pin **40** may be corkscrew shaped **60**.

[0031] In another embodiment of the present invention, a combination cap **30** and stopper **50** are used to seal a non-threaded smooth bottle top (not shown). The combination solid bottle cap **18** and stopper **50** allow for a combination seal comprising a stopper seal between the stopper **40** and the bottle neck (not shown) and a cap seal between the underside **15** of the solid bottle cap **18** the bottle top (not shown).

[0032] In this embodiment, a cork screw will not be required to dislodge the stopper **50** from the bottle neck. The solid cap **18** is pulled off the bottle top, and the stopper is removed because it is attached to the underside **15** of the solid cap **18**.

[0033] The stopper **50** is attached to the solid cap **18** by a pin **40** that is embedded in the stopper **50** and the solid cap **18**. In addition, an adhesive **32** may also adhere the stopper **50** to the underside **15** of the solid cap **18**. In addition, the pin **40** may be adhered to the solid bottle cap **18** with an adhesive **33**.

[0034] In still another embodiment of the present invention, a pull tab **60** may be attached to the top **30** of a solid bottle cap **18** at a welded point **64**. The pull tab **60** is pulled to dislodge both the cap **30** and stopper **50** from the bottle top and bottle neck.

[0035] Although illustrative embodiments of the invention have been shown and described, it is to be understood that various modifications and substitutions may be made by those skilled in the art without departing from the novel spirit and scope of the present invention, which is described in the claims below.

That which is claimed is:

1. A combination bottle stopper and bottle cap comprising:

a cap having a top and underside;

a pin having a length, a first end, and a second end; and

a stopper having a height,

the first end of said pin fixedly adhesively adhered to underside of said cap, the second end of said pin inserted in said stopper, the length of said pin less than said height of said stopper.

2. The combination of claim 1, wherein said pin is cork-screw shaped

3. The combination of claim 1, wherein said stopper is made of cork

4. The combination of claim 1, wherein said cap is threaded to engage threads on a bottle.

5. The combination of claim 1, wherein the first end of said pin is tapered.

6. The combination of claim 1, wherein the top of said cap further comprises a pull-tab, said tab profiled to facilitate a finger grip.

7. The combination of claim 1, wherein the top of said stopper is fixedly adhesively adhered to underside of said cap.

8. The combination of claim 1, wherein said cap is a metal cap.

9. The combination of claim 1, wherein the cap is a plastic cap.

10. A method for sealing a bottle comprising:

capping means to form an airtight seal between a cap and a bottle top;

stopper means to form a seal between a stopper and a bottleneck;

fixing means to fix said stopper means to said capping means, comprising a pin having a length, a first end, and a second end, said first end fixedly adhesively adhered to capping means, said second end inserted in said stopper means.

11. The method of claim 10, wherein said pin is cork-screwed shaped.

12. The method of claim 10, wherein capping means is a metal cap.

13. The method of claim 12, wherein said cap is threaded to engage a threaded bottle.

14. The method of claim 10, wherein capping means is a plastic cap.

15. The method of claim 14, wherein said cap is threaded to engage a threaded bottle.

16. The method of claim 10, wherein said stopper means comprises a cork, said cork radially compressed by said bottle.

17. The method of claim 1 further comprising means for removing said capping and stopping means.

18. A combination bottle stopper and bottle cap comprising:

a threaded cap having a top and underside;

a corkscrew shape pin having a length, a first end, and a second end; and

a cork stopper,

the first end of said pin fixedly adhesively adhered to underside of said cap, the second end of said pin inserted in said stopper.

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