EASY OPEN APPARATUS FOR MEDICAMENT STORAGE CARTON

CROSS-REFERENCE TO RELATED APPLICATION

[0001] The present application claims priority to United States Patent Application No. 63/073,800 filed September 2, 2020. The priority application is hereby incorporated by reference.

FIELD OF DISCLOSURE

[0002] The present disclosure relates to medicament storage cartons and, more particularly, to storage cartons.

BACKGROUND

[0003] Many medicament storage cartons are used for storing personal medicament dosages used for home use. These storage cartons are often made to hold one, two, three, four, or more medicament dosages. The cartons used for storing the medicament dosages need to be sealed to prevent tampering with the contents of the carton prior to first personal use. As a result, most medicament storage cartons are sealed with tamper evident closures, such as closure labels that will damage the carton if the closure labels are tampered with.

[0004] Medicament storage containers using tamper evident seals can be difficult to open without either using a cutting tool or damaging the packaging. The cutting tool can be dangerous to use and, in some instances, the damage to the carton leaves the medicament dosages stored in the carton exposed to the exterior environment. These medicament storage cartons may be more secure and provide evident proof of tampering, but may be difficult to open.

SUMMARY

[0004a] According to a first aspect of the present invention, there is provided a carton for medicament storage, the carton comprising:

a bottom box having a bottom wall, a first sidewall, a second sidewall, a back wall, and a first front wall;

a lid coupled to the bottom box and movable between an open position and a closed position;

a release tab comprising a portion of one of the lid and bottom box and being defined by a perforated line in the one of the lid and the bottom box; and

an adhesive positioned on at least a part of the release tab and selectively coupling the lid and the bottom box,

wherein, when the lid is in the closed position, the release tab is secured to the one of the lid and the bottom box via the perforation and is secured to the other of the lid and the bottom box via the adhesive, and

wherein, when the lid is in the open position, the release tab is separated along the perforated line from the one of the lid and the bottom box and is secured to the other of the lid and the bottom box via the adhesive.

[0004b] According to a second aspect of the present invention, there is provided a carton for medicament storage, the carton comprising:

a bottom box having a bottom wall, a first sidewall, a second sidewall, a back wall, and a front wall;

a top movable between an open position and a closed position, the top including a top wall and a second front wall adjacent the first front wall, wherein the bottom box is disposed adjacent the top when the top is in the closed position; and

a release tab comprising a portion of the second front wall and being defined between a bottom edge of the second front wall and a perforated line in the second front wall,

wherein, when the top is in the open position and the closed position, the release tab is secured to the bottom box via an adhesive label; and

wherein, when the top is in the open position, the release tab is separated along the perforated line from the second front wall.

[0005] The present disclosure is directed to a carton for medicament storage. The carton includes a bottom box having a bottom wall, a first sidewall, a second sidewall, a back wall, and a front wall. The carton also includes a lid, hingedly connected to

the back wall between an open position and a closed position, including a third sidewall adjacent the first sidewall, a fourth sidewall adjacent the second sidewall, and a second front wall adjacent the first front wall. Additionally, the bottom box is disposed within the third sidewall, fourth sidewall, and the second front wall when the lid is in the closed position. The carton also includes a release tab comprising a portion of the second front wall and being defined between a bottom edge of the second front wall and a perforated line in the second front wall. Also, when the lid is in the open position and the closed position, the release tab is secured to the bottom box. Additionally, when the lid is in the open position, the release tab is separated along the perforated line from the second front wall.

[0006] The present disclosure is directed to a carton for medicament storage. The carton includes a bottom box having a bottom wall, a first sidewall, a second sidewall, a back wall, and a front wall. The carton also includes an lid, hingedly connected to the back wall between an open position and a closed position, including a third sidewall adjacent the first sidewall, a fourth sidewall adjacent the second sidewall, and a second front wall adjacent the first front wall. Additionally, the bottom box is disposed within the third sidewall, fourth sidewall, and the second front wall when the lid is in the closed position. The carton also includes a release tab comprising a portion of the second front wall and being defined between a bottom edge of the second front wall and a perforated line in the second front wall. Also, when the lid is in the open position and the closed position, the release tab is secured to the bottom box via an adhesive label. Additionally, when the lid is in the open position, the release tab is separated along the perforated line from the second front wall.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] It is believed that the disclosure will be more fully understood from the following description taken in conjunction with the accompanying drawings. Some of the drawings may have been simplified by the omission of selected elements for the purpose of more clearly showing other elements. Such omissions of elements in some drawings are not necessarily indicative of the presence or absence of particular elements in any of the exemplary embodiments, except as may be explicitly delineated in the corresponding written description. Also, none of the drawings are necessarily to scale.

What is claimed is:

1. A carton for medicament storage, the carton comprising:

a bottom box having a bottom wall, a first sidewall, a second sidewall, a back wall, and a first front wall;

a lid coupled to the bottom box and movable between an open position and a closed position;

a release tab comprising a portion of one of the lid and bottom box and being defined by a perforated line in the one of the lid and the bottom box; and

an adhesive positioned on at least a part of the release tab and selectively coupling the lid and the bottom box,

wherein, when the lid is in the closed position, the release tab is secured to the one of the lid and the bottom box via the perforation and is secured to the other of the lid and the bottom box via the adhesive, and

wherein, when the lid is in the open position, the release tab is separated along the perforated line from the one of the lid and the bottom box and is secured to the other of the lid and the bottom box via the adhesive.

2. The carton of claim 1, wherein the lid comprises a top wall and a front lip.

3. The carton of claim 2, wherein the front lip is disposed within the bottom box when the lid is in the closed position.

4. The carton of claim 1, wherein the lid comprises a third sidewall adjacent the first sidewall, a fourth sidewall adjacent the second sidewall, and a second front wall adjacent to the first front wall.

5. The carton of ~~any one of claims 1-4~~claim 1, wherein the release tab ~~is~~ comprises (a) a push tab that detaches the release tab from the one of the lid and the bottom box, or (b) a first portion and a second portion hingedly connected to the first portion such that the first portion is a push tab that partially detaches the release tab from the one of the lid and the bottom box and the second portion is a pull tab that detaches the remainder of the release tab from the one of the lid and the bottom box.

~~6. The carton of any one of claims 1-5, wherein the release tab comprises a first portion and a second portion hingedly connected to the first portion such that the first portion is a push tab that partially detaches the release tab from the one of the lid and the bottom box and the second portion is a pull tab that detaches the remainder of the release tab from the one of the lid and the bottom box.~~

~~7~~6. The carton of ~~any one of claims 1-6~~ claim 4, further comprising at least one tab carried by a top edge of the first front wall and at least one latching feature carried by an inner surface of the second front wall such that the at least one tab engages the at least one latching feature when the lid is in the closed position to resist movement of the lid to the open position.

~~8~~7. The carton of claim ~~7~~6, wherein the at least one latching feature comprises a flap hingedly connected to one of either the third sidewall or fourth sidewall and secured to the inner surface of the second front wall.

~~9~~8. The carton of ~~any one of claims 1-8~~ claim 1, wherein the adhesive comprises an adhesive label.

~~10~~9. The carton of claim ~~9~~8, wherein the adhesive label is attached to the release tab and the one of the lid and the bottom wall of the bottom box.

~~11~~10. The carton of claim ~~10~~9, wherein the release tab includes a kiss cut to improve the securement between the release tab and the adhesive label.

~~12~~11. The carton of ~~any one of claims 10-11~~ claim 9, wherein the one of the lid and the bottom box includes a kiss cut to improve securement between the one of the lid and the bottom box and the adhesive label.

~~13~~12. The carton of ~~any one of claims 1-12~~ claim 1, wherein the carton is made from a unitary material.

~~14. The carton of any one of claims 1-13, wherein the carton includes a first exterior finish with a first texture and the release tab includes a second exterior finish with a second texture, the first texture different from the second texture.~~

~~15. The carton of any one of claims 3-14, wherein the first front wall includes a cut-out adjacent to a top edge of the first front wall such that the first front wall demonstrates increased pliability relative the second front wall.~~

~~16. The carton of any one of claims 1-13, further comprising a storage cavity disposed in the bottom box and a drug delivery device containing a medicament disposed in the storage cavity.~~

~~17~~13. ~~A~~The carton of claim 1, ~~for medicament storage, the carton comprising:~~

~~a bottom box having a bottom wall, a first sidewall, a second sidewall, a back wall, and a first front wall;~~

~~a lid coupled to the bottom box and movable between an open position and a closed position,~~ wherein the bottom box is closed by the lid when the lid is in the closed position;

~~a~~the release tab ~~comprising~~ comprises a portion of one of the lid and the first front wall of the bottom box and being defined by a perforated line in the one of the lid and the first front wall of the bottom box; ~~and~~

~~an~~the adhesive ~~positioned on at least a part of the release tab and~~ selectively coupling the lid and the first front wall of the bottom box,

wherein, when the lid is in the closed position, the release tab is secured to the one of the lid and the first front wall of the bottom box via ~~an~~the adhesive ~~label~~; and

wherein, when the lid is in the open position, the release tab is separated along the perforated line from the one of the lid and the first front wall of the bottom box and is secured to the other of the lid and the first front wall of the bottom box via the adhesive.

~~18. The carton of claim 17, wherein the lid comprises a top wall and a front lip.~~

~~19. The carton of claim 18, wherein the front lip is disposed within the bottom box when the lid is in the closed position.~~

~~20. The carton of claim 17, wherein the lid comprises a third sidewall adjacent the first sidewall, a fourth sidewall adjacent the second sidewall, and a second front wall adjacent the first font wall.~~

~~21. The carton of any one of claims 17-20, wherein the release tab is a push tab that detaches the release tab from the one of the lid, the first front wall, and the second front wall.~~

~~22. The carton of any one of claims 17-21, wherein the release tab comprises a first portion and a second portion hingedly connected to the first portion such that the first portion is a push tab that partially detaches the release tab from the one of the lid, the first front wall, and the second front wall and the second portion is a pull tab that detaches the remainder of the release tab from the one of the lid, the first front wall, and the second front wall.~~

~~23. The carton of any one of claims 17-22, further comprising at least one tab carried by a top edge of the first front wall and at least one latching feature carried by an inner surface of the second front wall such that the at least one tab engages the at least one latching feature when the lid is in the closed position to resist movement of the lid to the open position.~~

~~24. The carton of claim 23, wherein the at least one latching feature comprises a flap hingedly connected to one of either the third sidewall or fourth sidewall and secured to the inner surface of the second front wall.~~

~~25. The carton of any one of claims 17-24, wherein the adhesive comprises an adhesive label including a tamper evident adhesive seal.~~

~~26. The carton of any one of claim 25, wherein the adhesive label is attached to the release tab and one of the lid, first front wall, the second front wall, and the bottom wall of the bottom box.~~

~~27. The carton of any one of claims 17-26, wherein the release tab includes a kiss cut to improve the securement between the release tab and the adhesive label.~~

~~28. The carton of any one of claims 17-27, wherein the carton is made from a unitary material.~~

~~29. The carton of any one of claims 17-28, wherein the carton includes a first exterior finish with a first texture and the release tab includes a second exterior finish with a second texture, the first texture different from the second texture.~~

~~30. The carton of any one of claims 18-29, wherein the first front wall includes a cut-out adjacent to a top edge of the first front wall such that the first front wall demonstrates increased pliability relative the second front wall.~~

~~31. The carton of any one of claims 17-30, further comprising a storage cavity disposed in the bottom box and a drug delivery device containing a medicament disposed in the storage cavity.~~

~~32~~14. A carton for medicament storage, the carton comprising:

a bottom box having a bottom wall, a first sidewall, a second sidewall, a back wall, and a front wall;

a top movable between an open position and a closed position, the top including a top wall and a second front wall adjacent the first front wall, wherein the bottom box is disposed adjacent the top when the top is in the closed position; and

a release tab comprising a portion of the second front wall and being defined between a bottom edge of the second front wall and a perforated line in the second front wall,

wherein, when the top is in the open position and the closed position, the release tab is secured to the bottom box via an adhesive label; and

wherein, when the top is in the open position, the release tab is separated along the perforated line from the second front wall.

~~33~~15. The carton of claim ~~32~~14, wherein the release tab ~~is~~ comprises (a) a push tab that detaches the release tab from the second front wall, or (b) a first portion and a second portion hingedly connected to the first portion such that the first portion is a push tab that partially detaches the release tab from the second front wall and the second portion is a pull tab that detaches the remainder of the release tab from the second front wall.

~~34. The carton of claim 32, wherein the release tab comprises a first portion and a second portion hingedly connected to the first portion such that the first portion is a push tab that partially detaches the release tab from the second front wall and the second portion is a pull tab that detaches the remainder of the release tab from the second front wall.~~

~~35~~16. The carton of ~~any one of claims 32-34~~ claim 14, further comprising at least one tab carried by a top edge of the first front wall and at least one latching feature carried by an inner surface of the second front wall such that the at least one tab engages the at least one latching feature when the top is in the closed position to resist movement of the top to the open position.

~~36~~17. The carton of claim ~~35~~16, wherein the at least one latching feature comprises a flap hingedly connected to one of either a third sidewall hingedly connected to the top or a fourth sidewall hingedly connected to the top and secured to the inner surface of the second front wall.

~~37~~18. The carton of ~~any one of claims 32-36~~ claim 14, wherein the release tab is (a) secured to the bottom box via an adhesive, or (b) secured to the bottom box with an adhesive label attached to the release tab and the bottom box.

~~38. The carton of any one of claims 32-37, wherein the release tab is secured to the bottom box with an adhesive label attached to the release tab and the bottom box.~~

~~39. The carton of claim 38, wherein the adhesive label is attached to the release tab and the bottom wall of the bottom box.~~

~~40~~19. The carton of claim ~~39~~18, wherein the release tab is (b) secured to the bottom box with an adhesive label attached to the release tab and the bottom box and includes a kiss cut to improve the securement between the release tab and the adhesive label.

~~41~~20. The carton of ~~any one of claims 39-40~~ claim 18, wherein the release tab is (b) secured to the bottom box with an adhesive label attached to the release tab and the bottom box and the bottom wall of the bottom box includes a kiss cut to improve securement between the bottom box and the adhesive label.

~~42. The carton of any one of claims 32-41, wherein the carton includes a first exterior finish with a first texture and the release tab includes a second exterior finish with a second texture, the first texture different from the second texture.~~

~~43. The carton of any one of claims 32-42, wherein the first front wall includes a cut-out adjacent to a top edge of the first front wall such that the first front wall demonstrates increased pliability relative the second front wall.~~

~~44. The carton of any one of claims 32-43, further comprising a storage cavity disposed in the bottom box and a drug delivery device containing a medicament disposed in the storage cavity.~~