SHOTGUN SHELL DISPENSER

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ABSTRACT

A shotgun shell dispenser that includes a rectangular-shaped six-sided housing with a lower loading and discharge opening formed on one end. Formed on the lower sidewall of the housing adjacent to the lower discharge opening. Located inside the housing is a downward biased stomper plate designed to press against the upper most shell to constantly force the row of shells downward towards the discharge opening. Located inside the discharge opening is a pivoting bail designed to receive and temporarily hold one shell in a blocking position inside the discharge opening. The pivoting bail is biased inward to maintain the lower shell in a blocking position thereby prevent the other shells from being accidentally discharged. The bail includes two finger tabs and a u-shaped finger opening that allows the user to easily lift and rotate the bail to dispense the shell located thereon.
SHOTGUN SHELL DISPENSER

[0001] This is a utility patent application, which claims benefit of U.S. Provisional Application No. 60/583,269 filed on Jun. 11, 2004.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] This invention relates to carriers for ammunition, and more particularly to carriers used to temporarol y hold shotgun shells.

[0004] 2. Description of the Related Art

[0005] Carriers for shotgun shells that attached to the belt of a hunter are well known. (See U.S. Pat. Nos. 2,975,988; 2,122,001; 2,756,913; 2,837,258; and 3,219,244). Ideally, such carriers should allow the hunter to easily load a box of shotgun shells, securely hold the shells while hunting, and then allow the hunter to easily remove individual shells when needed.

[0006] Some carriers include a dispensing mechanism that facilitates the removal of individual shells from the carrier. Unfortunately, the dispensing mechanisms require the hunter to use both hands to refill the carrier. In order to refill the carrier, the carrier must be removed from the hunter’s belt, which is a great nuisance.

[0007] Many hunters plan their hunting trips several days in advance. In preparation of the trip, the hunter will purchase several boxes of new shells and then loaded them into a carrier shown and described in the patents referenced above. The filled carriers are neatly stored in a large box or bag. Because such carriers are irregular shaped, the carriers become scattered inside the box or bag.

[0008] What is needed is a belt mounted, shotgun shell carrier that allows a hunter to easily dispense and refill the carrier with one hand and allows multiple carriers to be easily and neatly stacked.

SUMMARY OF THE INVENTION

[0009] It is an object of the present invention to provide a shotgun shell carrier.

[0010] It is another object of the invention to provide such a carrier that allows a hunter to easily dispense and refill the carrier with one hand.

[0011] It is another object of the present invention to provide such a carrier that allows multiple carriers to be easily stacked together.

[0012] These and other objects of the invention which will become apparent are met by a shotgun shell dispenser disclosed herein that includes a rectangular-shaped housing with a lower loading and discharge opening formed on its front surface.Disposed transversely inside the discharge opening is a pivoting bail with a shell-receiving surface formed thereon. The bail also includes an elevated rear flat surface, two outward extending finger tabs, and a centrally aligned u-shaped finger cutout.

[0013] The shell-receiving surface is designed to receive one shell transversely aligned inside the housing. The shell-receiving surface is located centrally in the bail with the rear flat surface located behind and elevated above the shell-receiving surface. The lower front surface of the housing is curved inward, thereby partially holding the shell on the shell-receiving surface when the bail is in a resting position inside the housing.

[0014] The pivoting bail is biased so that the two finger tabs extending outward and slightly downward through the discharge opening. When the bail is at rest, the elevated rear on the bail flat surface is rotated forward inside the housing. When a shell is loaded onto the shell-receiving surface, the hunter is able to place his or her ring and index fingers on the two finger tabs and insert his or her middle finger into the u-shaped opening. When the fingers are lifted gently, the bail slowly rotates and the shell simultaneously slides off the bail. The lower shell located inside the housing adjacent to bail’s flat surface then automatically falls into the shell-receiving surface.

[0015] The housing includes a hollow cavity designed to hold a row of stacked, transversely aligned shells. Located inside the housing is a downward biased stomper plate that presses against the upper most shell to constantly force the row of shells downward and towards the pivoting bail. Because the inside surface of the front sidewall of the housing is sloped inward, the shells located inside the hollow cavity are forced inward and into a narrow discharge shoot located adjacent to the bail. As stated above, when the pivoting bail is at rest, it receives and temporarily holds one shell and then blocks the downward movement of the roll of shells in the housing.

[0016] An optional holding clip attaches to the rear surface of the housing and used to temporarily attach the device to a duck blind, boat gunwale or to the user’s belt. Also, optional stacking features are provided in the front and rear surfaces of the housing that enable multiple housing to be stacked together.

[0017] To manually dispense the shells from the housing, the hunter inserts his or her fingers into the loading and discharge opening and the u-shaped finger opening in the bail and then simultaneously lifts and rotates the pivoting bail and grasps the shell to remove the shell from the housing. When the bail is rotated upward and the shell is removed, the next lower shell in the row of shells is able to automatically fall into the shell-receiving surface on the pivoting bail when the bail is reset in the resting position the shell is then ready to be discharged. These steps are reversed when loading shells into the housing.

DESCRIPTION OF THE DRAWINGS

[0018] FIG. 1 is a perspective view of the shotgun shell dispenser disclosed herein.

[0019] FIG. 2 is a front elevational view of the shotgun shell dispenser shown in FIG. 1.

[0020] FIG. 3 is a bottom plan view of the dispenser shown in FIGS. 1 and 2.

[0021] FIG. 4 is a side elevational view taken along line 4-4 in FIG. 2.

[0022] FIG. 5 is a sectional side elevational view of the dispenser similar to the view shown in FIG. 4 with a plurality of shells loaded inside the dispenser.

[0023] FIG. 6 is a rear elevational view of the dispenser.
Referring the Figs., there is shown a shotgun shell dispenser 10 used to carry a plurality of shot gun shells 90 specially designed to allow a hunter to easily remove and load individual shells 90 into the dispenser 10 using the fingers on one hand. The dispenser 10 is also specifically designed to allow the hunter to pre-pack multiple dispensers 10 and then stack them in an organized manner inside a box or suitable container.

The dispenser 10 includes a rectangular-shaped, six-sided housing 12 with a lower loading and discharge opening 20. Located on the lower end wall of the housing 12 adjacent to the lower loading and discharge opening 20 is a pivoting ball 40 with a u-shaped finger cutout 24 formed therein that allows the hunter to extend his or her middle finger around a shell 90 disposed on the ball 40. The housing 12 includes a hollow cavity 25 designed to hold a row of stacked, transversely aligned shells 90. (See FIG. 5)

Located inside the hollow cavity 25 is a downward biased stumper plate 50 designed to press against the upper shell 90 to force the row of shells 90 downward inside the housing 12 and towards the lower loading and discharge opening 20. The inside surface 23 of the front sidewalk 22 of the housing 12 is sloped inward thereby forcing the lower stacked shells inward towards a narrow discharge shoot 28 formed within the housing 12.

As shown in FIG. 8, the stumper plate 50 includes an upper horizontal plate 52 and a lower horizontal plate 54. Located on the opposite sides of the stumper plate 50 are two vertical posts 56, 58. Two biasing means 60 is disposed between the two posts 56, 58 and two lips (not shown) formed on the inside surface of the housing 12 and used to force the stumper plate 50 downward in the housing 12.

Located inside the discharge opening 20 is a pivoting ball 40 designed to receive and temporarily hold the lower shell 90' in a blocking position inside the discharge opening 20. As shown in FIG. 7, the ball 40 includes two lower, forward finger tabs 41A, 41B and two laterally extending arms 46, 48. A u-shaped finger opening 24 is formed between the two finger tabs 41A, 41B. The arms 46 and 48 extend into two small passageways (not shown) located on the opposite sidewalks adjacent to the near surface of the housing 12. Formed on the rear portion of the ball 40 are two upward extending blocking arms 42, 44. The tips of the arms 42, 44 curved forward and directly under the lowest shell in the row of shells 90 to block downward movement of the row of shells 90. It should be understood that the two arms 42, 44 may be replaced with a larger single arm 42C. When the bottom of the ball 40 is rotated forward, the finger tabs 41A, 41B are lifted and rotated rearward through the discharge opening 20. The tips of the arms 42, 44 are rotated rearward thereby allowing the lowest shell to fall into the shell-receiving surface 49. When the shell 90 drops onto the surface 49, it is ready to be discharged. During use, the pivoting ball 40 is biased inward via two side springs 56, 58 located around the two laterally extending arms 46, 48 and the two opposite side walls. The two springs 56, 58 hold the rear flat surface in a blocking position to prevent the lower shell 90' in the stack of shells from being accidentally discharged.

As shown in FIG. 2, formed on the front surface 14 is a recessed square-shaped cavity 15. Formed on the rear surface 16 of the housing 12 is a rearward projecting square platform 17 designed to fit inside the square shaped cavity 15 when two dispensers 10, 10' are stacked together. Also, attached to the square platform 17 is a removable clip 80 so that it enables the dispenser 10 to be attached to the upper edge of a duck blind, a boat gunwale, or to the hunter’s belt. The clip 80 includes a rearward-extending stud 82 with longitudinally aligned wings 83, 84. Formed on the platform 17 is a keyhole 85 complementary in shape with the stud 82. The keyhole 85 includes transversely aligned recessed slots 86, 87 that are complementary to the wings 83, 84 formed on the studs 82, which engage the wings 83, 84 when the clip 80 is longitudinally aligned with the housing 12.

To dispense the shells from the housing 12, the hunter places his or her index finger onto the two finger tabs 41A, 41B and inserts the middle finger into the u-shaped finger opening 24. The hunter then lifts and rotates the ball 40 and simultaneously pulls the shell 90 resting in the bail 40 through the discharge opening 20. The lower shell 90' in the row of stacked shells 90 is then able to automatically fall onto the shell support surface 49 of the bail 40. The bail 40 is then released and allowed to rotate back to its original resting position via the two side springs 56, 58. These steps are reversed to load shells into the housing 20.

In the preferred embodiment, the housing 12 measures approximately 3 inches in width, 7 inches in length, and 2½ inches in height. The discharge opening 20 is rectangular and measures approximately 2½ inches wide and 2 inches in height. The bail 40 is approximately 2¼ inches in length and one inch in width. The u-shaped finger opening 24 is approximately 1½ inches in diameter. The housing 12, the bail 40, the stumper plate 50 and the clip 80 are all made of durable lightweight plastic.

In compliance with the statute, the invention described herein has been described in language more or less specific as to structural features. It should be understood, however, that the invention is not limited to the specific features shown, since the means and construction shown is comprised only of the preferred embodiments for putting the invention into effect. The invention is therefore claimed in any of its forms or modifications within the legitimate and valid scope of the amended claims, appropriately interpreted in accordance with the doctrine of equivalents.

I claim:
1. A shotgun shell dispenser, comprising:
   a. rigid housing with a lower loading and discharge opening formed on one end, said housing being hollow and being sufficient in width to hold a plurality of stacked transversely aligned shotgun shells;
   b. a transversely aligned, pivoting bail located inside said lower discharge opening and designed to receive and temporarily hold a lower shell in a blocking position inside the discharge opening, said bail being biased to block the downward movement of a row of shells located inside said housing and above said discharge opening in said housing;
c. a stomper plate located inside said housing that presses downward against the upper shell in the row of stacked shell in said housing; and,
d. a means for biasing said stomper plate downward so that the row of shells are constantly forced downward in said housing.

2. The shotgun shell dispenser, as recited in claim 1, wherein said bail includes a shell-receiving surface enabling a shell to rest transversely thereon.

3. The shotgun shell dispenser, as recited in claim 2, wherein said bail includes a U-shaped cutout formed thereon that enables a user to insert a finger around a shell position on said shell receiving surface.

4. The shotgun shell dispenser, as recited in claim 1, wherein said bail includes two outward extending finger tabs that enable the bail to be lifted and rotated rearward to remove a shell located on said shell receiving surface.

5. The shotgun shell dispenser, as recited in claim 2, wherein said bail includes two outward extending finger tabs that enable the bail to be lifted and rotated rearward to remove a shell located on said shell receiving surface.

6. The shotgun shell dispenser, as recited in claim 3, wherein said bail includes two outward extending finger tabs that enable the bail to be lifted and rotated rearward to remove a shell located on said shell receiving surface.

7. The shotgun shell dispenser, as recited in claim 2, wherein said bail includes a lower surface that extends outward through said discharge opening and limits the downward rotation of said bail in said housing so that when a shell is disposed into said shell receiving surface, said shell may be easily grasped by at least on finger and removed through said discharge opening.

8. The shotgun shell dispenser, as recited in claim 4, wherein said bail includes a lower surface that extends outward through said discharge opening and limits the downward rotation of said bail in said housing so that when a shell is disposed into said shell receiving surface, said shell may be easily grasped by at least on finger and removed through said discharge opening.

9. The shotgun shell dispenser, as recited in claim 1, further including a holding clip located on the rear surface of said housing used to attached said housing to a support surface.

10. The shotgun shell dispenser, as recited in claim 1, further including an outward extending platform formed on said rear surface of said housings.

11. The shotgun shell dispenser, as recited in claim 10, further including a removable holding clip that attaches to said platform and used to attach said housing to a support surface.

12. The shotgun shell dispenser, as recited in claim 11, wherein said platform is square when viewed from a rear plan view.

13. The shotgun shell dispenser, as recited in claim 12, further including a recessed cavity form on the front surface of said housing designed to receive the platform on an adjacent housing thereby enabling two housing to be stacked and locked together.

14. A shotgun shell dispenser, comprising:

a. rigid housing with a lower loading and discharge opening formed on one end, said housing being hollow and being sufficient in width to hold a plurality of stacked transversely aligned shotgun shells;

b. a transversely aligned, pivoting bail located inside said housing and adjacent to said discharge opening, said bail includes a shell receiving surface used to hold a transversely aligned shell inside said discharge opening, said bail includes at least one outward extending finger tab that enables said bail to be easily rotated upward inside said housing using a finger and a lower surface that extends outward and through said discharge opening and blocks excess rotation of said bail inside said housing, and a upper flat surface opposite said lower surface that blocks the downward movement of a row of shells located inside said housing and above said discharge opening in said housing;

c. a stomper plate located inside said housing that presses downward against the upper shell in the row of stacked shell in said housing; and,
d. a means for biasing said stomper plate downward so that the row of shells are constantly forced downward in said housing.

15. The shotgun shell dispenser, as recited in claim 14, further including a unshaped slot formed on said bail, said slot enabling a user to extend at least one finger partially under a shell placed transversely on said bail to remove said shell from said bail.

16. The shotgun shell dispenser, as recited in claim 16, further including an outward extending platform formed on said rear surface of said housings.

17. The shotgun shell dispenser, as recited in claim 17, further including a removable holding clip that attaches to said platform and used to attach said housing to a support surface.

18. The shotgun shell dispenser, as recited in claim 17, further including a recessed cavity form on the front surface of said housing designed to receive the platform on an adjacent housing thereby enabling two housing to be stacked and locked together.

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