Sept. 17, 1968 O. N. OLSON 3,401,588

SHOT CONTAINER FOR CARTRIDGES AND METHOD OF LOADING

Filed Aug. 11, 1966

FIG. 1

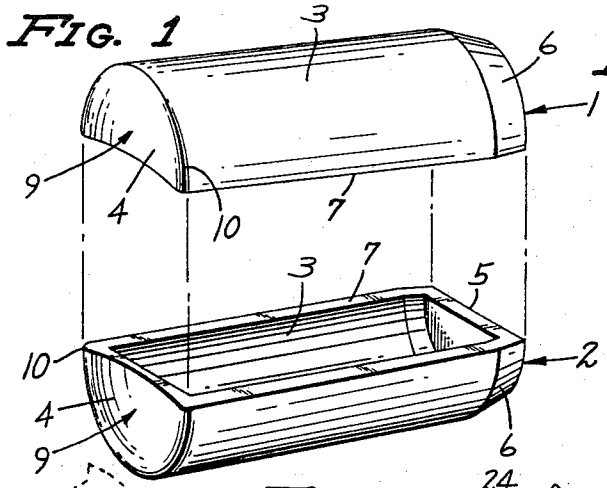



FIG. 2

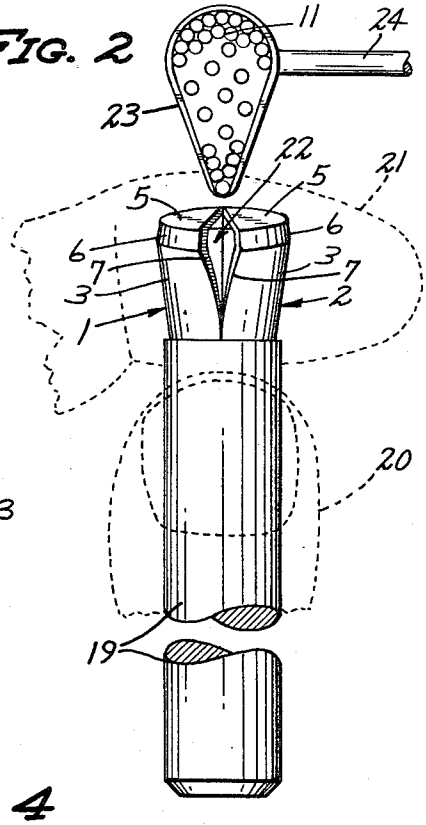



FIG. 3

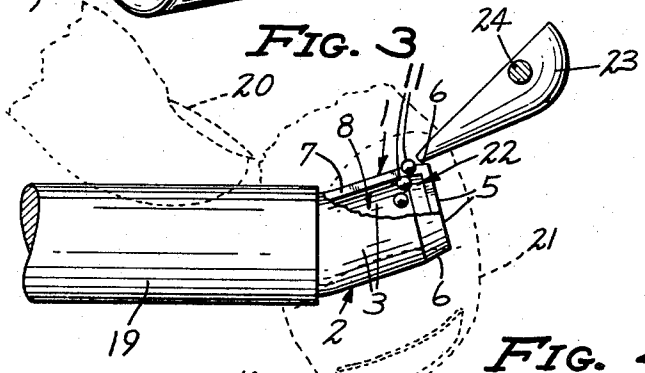



FIG. 4

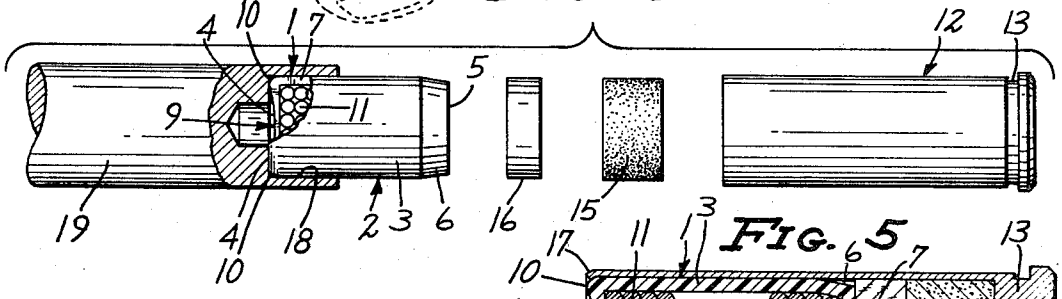



FIG. 5

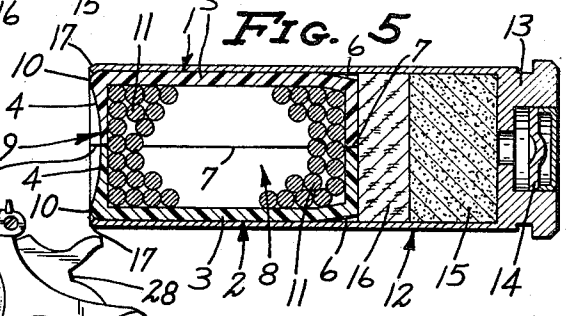
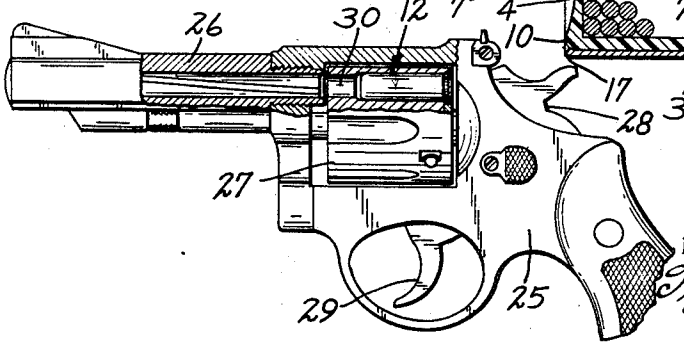



FIG. 6




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# SHOT CONTAINER FOR CARTRIDGES AND METHOD OF LOADING

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## ABSTRACT OF THE DISCLOSURE

A shot container for hand gun cartridges comprising a pair of individual cooperating semi-cylindrical container sections each having a semi-cylindrical wall portion and semi-circular front and rear segmental end wall portions, the wall portions of each section defining a marginal edge disposed in a plane on the axis of its respective cylindrical wall portion. The container sections are adapted to be filled with shot pellets and disposed in marginal edge-to-edge abutting relationship in a cartridge casing. A method of loading a cartridge with shot involves the holding of a pair of container sections together, bending the sections to provide an opening therebetween, filling the container sections with shot, and inserting the container into the cartridge casing.

Shot containers heretofore produced have been made from a single piece of suitable material, some having axial openings and/or slots in the front ends thereof to promote spreading or splitting apart of the container as the same, with the charge therein, is ejected from the gun barrel. Most of these devices carry for a considerable distance from the gun barrel before splitting apart to free the shot charge, and are designed specifically to keep the shot pattern relatively small. Thus, these prior art shot containers perform a function similar to a choke applied to a shotgun barrel. Cartridges, containing shot, for use in rifles and hand guns, such as pistols and revolvers are also known, these cartridges having the shot poured directly into the cartridge casing intermediate a rear wad directly forward of the powder charge and a front wad held in place by crimping or generally radially inward peening of the open front end of the cartridge casing. When such cartridges are fired, the forward wad often emerges from the cartridge casing in tilted or askew fashion, disturbing the pattern of the shot. Otherwise, the front wad, after emerging from the gun barrel and being of less weight than the shot charge, quickly decelerates to a point where the shot impinging thereagainst is disturbed in its flight and the shot pattern is distorted to such a degree as to lose its effectiveness. Moreover, the extreme crimping or peening of the front end of the cartridge casing, necessary to hold the soft front wad in position, usually renders the casing unfit for reloading.

An important object of this invention is the provision of a shot container which will fly apart immediately upon discharge from a gun barrel to permit the pellets or shot therein to form a more expanded pattern during movement thereof toward the target.

Another object of this invention is the provision of a shot container for cartridges which will effectively isolate the shot from contact with the interior surface of a gun barrel during discharge of the gun to prevent leading of the barrel, and which will cushion the shot to minimize flattening or dimpling of the shot during said discharge.

Another object of this invention is the provision of a shot container which will not foul the rifling of a rifled gun barrel.

Yet another object of this invention is the provision



of a shot container which is inexpensive to produce, and which may be quickly and easily charged with shot.

Another object of this invention is the provision of a novel method for providing a cartridge with a shot load.

The above, and still further highly important objects and advantages of this invention will become apparent from the following detailed specification, appended claims and attached drawings.

Referring to the drawings, in which like reference characters indicate like parts throughout the several views:

FIG. 1 is an exploded view in perspective of the container sections of this invention;

FIG. 2 is a view in plan of the container of this invention, illustrating the method of charging the same with shot, some parts being broken away;

FIG. 3 is a fragmentary view in side elevation of the arrangement illustrated in FIG. 2, some parts being broken away and some parts being shown in section;

FIG. 4 is a fragmentary exploded view in side elevation, further illustrating the method of loading a cartridge casing with the shot filled container of this invention, some parts being broken away and some parts being shown in section;

FIG. 5 is an axial section of a cartridge loaded with the shot container of this invention; and

FIG. 6 is a fragmentary view in side elevation of a conventional revolver loaded with the cartridge of FIGS. 4 and 5, some parts being broken away and some parts being shown in section.

The shot container of this invention comprises a pair of identical halves or sections **1** and **2**, made from suitable flexible resilient material, preferably synthetic plastic material, such as polyethylene or the like. Each of the container sections **1** and **2** are molded or otherwise formed to provide a semi-cylindrical wall portion **3** and semi-circular front and rear end wall portions **4** and **5** respectively. Adjacent the rear wall portion **5**, each semi-cylindrical wall **3** is formed to provide a rearwardly tapering end portion **6**, for facilitating insertion of the container sections **1** and **2** into a cartridge casing, as will hereinafter become apparent. The cylindrical wall portion **3**, and end wall portions **4** and **5** of each of the sections **1** and **2** define a common marginal edge **7** lying in a flat plane that is disposed on the axis of respective cylindrical wall portion **3**. Thus, when the container sections **1** and **2** are placed in marginal edge-to-edge engagement, they cooperate to define a closed cylindrical container defining a closed chamber **8**.

The outer or front surface of the front wall **4** of each container section **1** and **2** are concave, as shown in FIGS. 1, 4 and 5, the front wall portions **4** cooperating to define a forwardly opening cup-shaped surface **9**. Between the concave front surfaces of the front end wall portions **4** and the outer surfaces of their adjacent cylindrical wall portions **3**, the container sections **1** and **2** are rounded to provide outer convex wall surface portions **10**.

As shown in FIGS. 4 and 5, the container comprising the sections **1** and **2** is adapted to be filled with shot, indicated at **11**, and inserted into a conventional cartridge casing **12** having a rear end portion **13** equipped with a primer or percussion means **14**. As shown, a charge of powder **15** is placed in the rear end portion of the cartridge casing **12**, and a conventional wad **16** of cork or other suitable material is inserted forwardly of the powder charge **15**. The rear end wall portions **5** of the container sections **1** and **2** abut the wad **16**, and the open front end of the cartridge casing **12** is peened radially inwardly over the convex surface portions **10**, as indicated at **17**, sufficiently to prevent accidental removal of the shot container from the interior of the cartridge casing **12**.

A preferred method of charging the container of this invention with shot and loading a cartridge with the shot

filled container is illustrated in FIGS. 2–5. As therein shown, the container sections **1** and **2** are placed into marginal edge-to-edge engagement and inserted front end forward into the cylindrical recess **18** of an elongated holder **19**. As shown, the axial depth of the recess **18** is considerably less than the axial length of the container sections **1** and **2**, which leaves the greater portion of the container formed by the sections **1** and **2** projecting outwardly from the recess **18** and in an unsupported condition. With the use of the operator's thumb and forefinger shown by dotted lines in FIGS. 2 and 3, and indicated at **20** and **21** respectively, the unsupported rear end portions of the sections **1** and **2** are deformed or bent upwardly in the direction of the planes defined by the marginal edges **7** thereof. The container sections **1** and **2** thus become distorted, the upper portions thereof spreading apart to provide an opening **22** through which the shot **11** may be poured into the chamber **8**, from a conventional shot dipper **23**, having a handle or the like **24**. When the chamber **8** is filled with shot **11**, pressure of the finger **21** on the container sections **1** and **2** is released, permitting the sections **1** and **2** to assume their natural semi-cylindrical shape, as shown in FIG. 4. The shot filled container is then forced axially into the front end portion of the cartridge casing **12** forwardly of the powder charge **15** and wad **16**, the tapered portions **6** facilitating entry of the shot container into the casing **12**. Preferably, the outer diameter of the shot container formed by the abutting halves or sections **1** and **2** is such that a snug fit is obtained therebetween and the interior wall surface of the cartridge casing **12**. When the container is partially inserted into the casing **12**, the holder **19** is removed from the front end of the container sections **1** and **2**, and the container pushed rearwardly into the casing **12** by hand or with a suitable tool until the rear end wall portions **5** about the wad **16**. The extreme front end of the shell or casing **12** is then crimped or peened over the adjacent convex surface portion **10** to secure the container within the casing **12**.

While the shot container of this invention may be made to fit any desired cartridge size, the same is primarily intended for use with cartridges for rifles or hand guns, such as revolvers, a conventional revolver being shown fragmentarily in FIG. 6 as comprising, a frame **25**, barrel **26**, cylinder **27**, hammer **28** and trigger **29**. Upon discharge of the weapon containing the assembled cartridge shown in FIG. 5, firing of the gun will cause the shot container with its content to be ejected from the cartridge casing **12**, the convex surface portion **10** or rounded leading edge will guide the container through the forward chamber portion **30** of the cylinder **27** and the rifled interior of the barrel **26**, the material of the container sections **1** and **2** being sufficiently soft to be grooved by the rifling in the barrel **26**, whereby spin is imparted to the shot container on its own axis. As the container leaves the barrel **26**, force of air against the concave surface portions **9**, together with centrifugal action, causes the container sections **1** and **2** to immediately fly apart, leaving the shot **11** to proceed toward the target. In view of the fact that the container is made from separate sections, separation of the sections occurs immediately upon ejection of the shot filled container from the gun barrel, permitting the shot charge to assume an expanded or spread pattern. Further, when the charge of powder **15** is exploded, the cushioning effect of the relatively soft container sections **1** and **2** minimizes flattening or dimpling of the shot **11**, which often occurs with conventional shot shells when fired from a shotgun. Further, the shot **11** being confined within the casing sections **1** and **2** during passage thereof through the barrel, fouling or leading of the barrel is effectively prevented.



Cartridges of the type illustrated in FIG. 5 utilizing shot filled containers of this invention, are intended primarily for use as survival equipment and at relatively close range, particularly by military personnel or any person becoming isolated in a remote area. A cartridge of this type is extremely effective as protection against reptiles which offer a very small target against a single bullet. Further, a cartridge of this type is extremely useful in hunting small animals or birds for food, particularly when a weapon larger than a hand-gun is unavailable.

This invention has been fully tested and found to be completely satisfactory for the accomplishment of the objectives set forth; and, while I have shown and described a commercial embodiment of shot container for cartridges and a method of loading, it will be appreciated that the same is capable of modification without departure from the spirit and scope of the invention, as defined in the claims.

What is claimed is:

**1.** The method of loading a cartridge with shot comprising;

(a) providing a pair of cooperating hollow semi-cylindrical container sections of flexible resilient material and each having a semi-cylindrical wall portion and semi-circular end wall portions at the opposite ends of said semi-cylindrical wall portion and each having a marginal edge disposed in a flat plane on the axis of the semi-cylindrical wall portion,

(b) supporting said pair of sections adjacent one end thereof in marginal edge-to-edge relationship to provide a closed end cylindrical container,

(c) bending the unsupported portion of said container laterally in a direction parallel to the plane of the marginal edges of said sections to distort said unsupported portion, whereby to separate cooperating marginal edge portions of said sections adjacent the unsupported end of the container to provide an opening to the interior of the container,

(d) filling said container with shot through said opening,

(e) releasing said unsupported portion of the container to permit straightening thereof and closing of said opening,

(f) and inserting the shot filled container axially into the open front end of a powder charged cartridge casing for substantially the full length of the container.

**2.** The method defined in claim **1** characterized by inserting the container sections into a holder having a container receiving recess of substantially less axial depth than the length of said container sections to support the container adjacent said one end thereof.

**3.** The method defined in claim **1** characterized by the step of radially inwardly peening the open front end of the cartridge casing to seat the container within the casing.


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ROBERT F. STAHL, *Primary Examiner.*