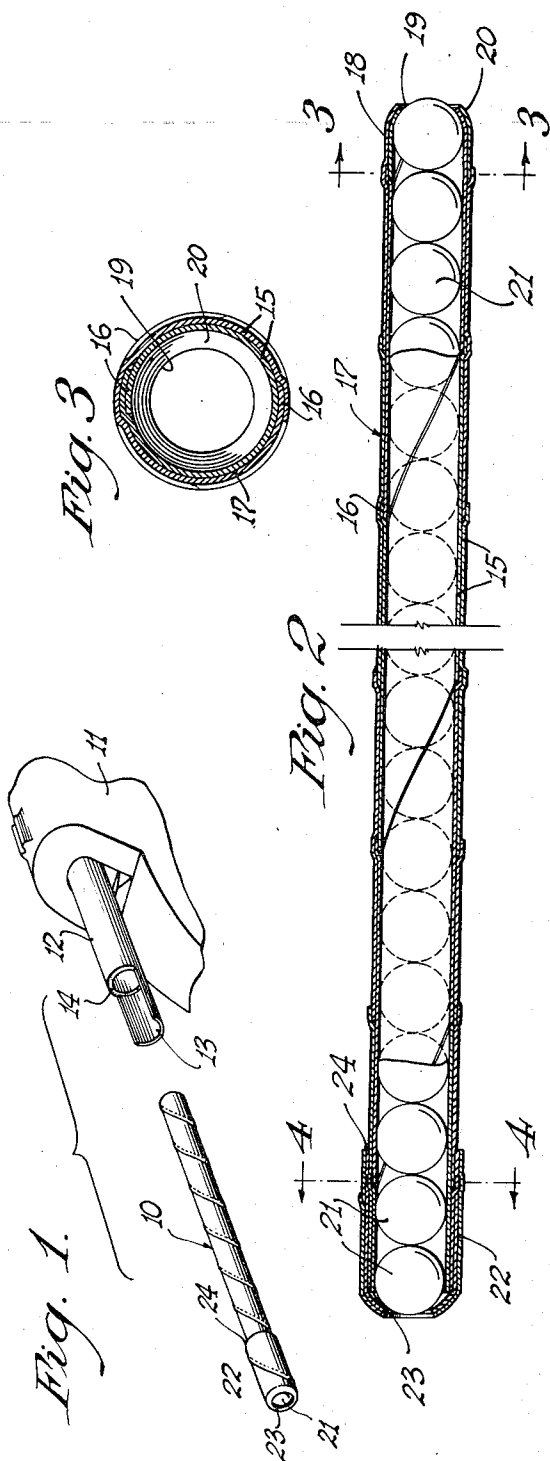
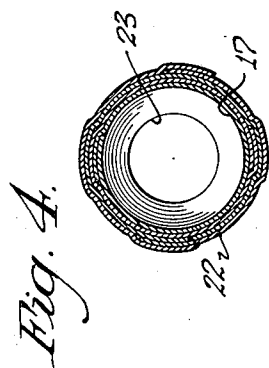
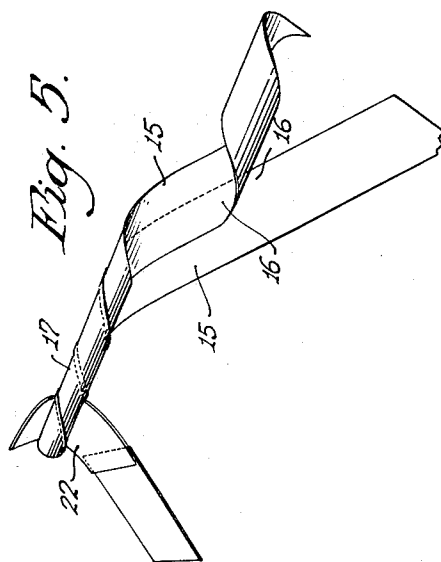


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CARTRIDGE FOR AIR GUNS
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CARTRIDGE FOR AIR GUNS

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3 Claims. (Cl. 124—45)

This invention relates to certain novel improvements in air gun cartridges and has for its principal object the provision of an improved construction of this character which will be highly efficient in use and economical in manufacture.

One of the objects sought to be accomplished by the present invention is the provision of a cartridge shell of a construction such as permits the easy and expeditious insertion therein and projection therefrom of the pellets or shots.

Another object of the invention is the provision of an air gun cartridge having a construction such as permits expeditious mounting of the cartridge in the magazine of the gun.

A still further object of the invention is the provision of a cartridge which when the pellets or shots are ejected therefrom, may be reused.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing showing the preferred form of construction, and in which:

Fig. 1 is a perspective view of a magazine and my improved cartridge showing the relationship therebetween prior to assembly;

Fig. 2 is a longitudinal sectional detail view of the carriage embodying my invention;

Fig. 3 is an enlarged sectional detail view of the same taken substantially on line 3—3 of Fig. 2;

Fig. 4 is an enlarged sectional detail view taken substantially on line 4—4 of Fig. 2; and

Fig. 5 illustrates the method of assembling the shell of the cartridge.

Referring to the drawing illustrating the preferred form of construction of my invention, my improved cartridge is indicated generally at 10. This cartridge is intended to be associated with an air gun generally indicated at 11, including a magazine 12, with a lip portion 13 and a shoulder 14 between the junction of the lip 13 and the body of the magazine 12, shown, described in and forming a part of my copending application on an Air gun, Serial No. 312,881, filed January 8, 1940.

The lip 13 constitutes a guide for the assembly of the cartridge 10 in the magazine 12 and the shoulder 14 an abutment for the cartridge 10.

My improved cartridge is preferably formed from flexible or pliable material, such as heavy paper, cardboard or the like. In this connection, I take two strips of cardboard or paper indicated

at 15, lay them with adjacent edges 16 in substantially overlapping relation, as shown in Fig. 5. The strips are then twisted into tube form, as shown in Fig. 5, to form the shell 17 of the cartridge. Thus, it is seen by placing the two strips with the longitudinal edges thereof in substantially overlapping relation with respect to each other that the cartridge is substantially strengthened its entire length. The strips are then adhesively secured together when folded spirally to provide the shell 17. The magazine-receiving end 18 of the shell has its edge portion, which defines the opening or discharge end 19, crimped inwardly as at 20 to provide a stop or abutment for the pellets or shots 21.

The outer end of the shell 17 is enclosed by a cap 22, this cap 22 preferably being adhesively secured to the shell 17 and having its peripheral edge 23 defining the entrance opening to the shell preferably crimped inwardly after the pellets or shots are assembled in the shell, whereby to provide a stop for such pellets or shots to prevent their dislodgement from the shell. This cap 22 also provides an annular shoulder 24 for reasons hereinafter best understood.

The cartridge is assembled in the magazine 12 and when thus assembled the insertion of the cartridge is limited by the engagement of the shoulder 24 of the cartridge with the shoulder 14 of the magazine 12. When these shoulders are thus engaged, the cap 22 will be supported by the lip 13.

The pellets or shots are projected from the magazine under pneumatic pressure in a manner well known in the art, by mechanism not constituting a part of this invention. The abutting shoulders 14 and 24 retain the cartridge 10 in a fixed position while the pellets are displaced by pneumatic pressure, the crimping 20 at the discharge end of the cartridge easily giving way under the pressure charge along the column of pellets.

From the description herein, it will be apparent that I provide a cartridge which is substantially durable and which employs a simple and efficient means for retaining the pellets or shots within the cartridge, and a simple but efficient means for limiting the insertion of the cartridge in the magazine, all of which has great advantages in use, as well as in the manufacture of the cartridge.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation

and modification without departing from the spirit of the invention. I therefore do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A cartridge for pellets or shots of an air gun and adapted to be inserted into the magazine of said air gun, said cartridge comprising a tubular-like member having one end portion crimped inwardly to form a yieldable annular obstruction for the pellets, and a cap formed integrally on the opposite end portion and having an end crimped inwardly to provide an annular abutment for pellets arranged in the tubular-like member, said cap forming a magazine engaging shoulder for limiting inward movement of said cartridge with respect to said magazine.

2. A cartridge for pellets and adapted to be inserted as a unit into the magazine of an air gun, said cartridge constituting, in combination, a shell formed of two parallel strips arranged with adjacent longitudinal edges in overlapping relation with respect to each other and spiralled into tubular formation, one end of said shell being crimped to provide a yieldable annular obstruction for pellets arranged in said shell, and a cap formed integrally on the other end of said shell providing a magazine-engaging shoulder

and having an end crimped inwardly to provide an annular obstruction for said pellets, said last named annular obstruction adapted to permit ingress of air under pressure to displace pellets through the first one of said annular obstructions, said magazine-engaging shoulder forming an abutment for said cartridge to retain the latter in a fixed position with respect to said magazine while the pellets are displaced as aforesaid.

3. In a pellet cartridge for an air gun having a magazine terminating in an abutment shoulder with a guide lip extending therefrom, said cartridge comprising, in combination, a tubular body for maintaining pellets in serial alignment for displacement therefrom by compressed air and having one end portion crimped to provide a yieldable annular obstruction for said pellets, a cap formed integrally on the other end of said tubular body and having its outer end spaced beyond the open outer end of said tubular body and crimped inwardly to provide an annular obstruction for said pellets, said cap having its inner end spaced substantially inwardly of the open outer end of said tubular body to provide a magazine-engaging shoulder, said cap being disposed to lie in said guide lip with said magazine-engaging shoulder abutting the abutment shoulder on the magazine whereby to retain said cartridge in fixed relation with respect to the magazine when pellets are displaced therefrom as aforesaid.

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