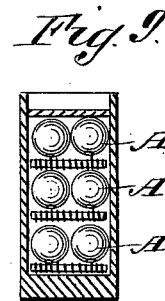
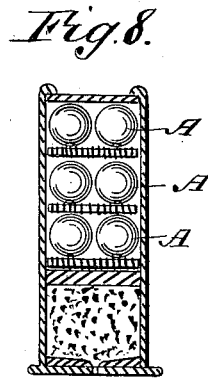
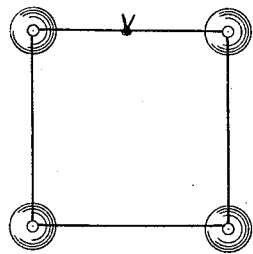
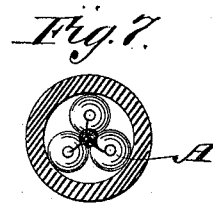
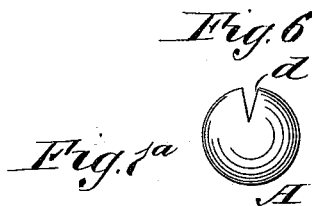
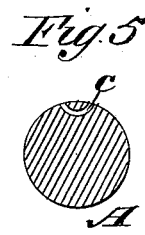
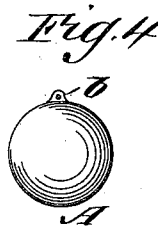
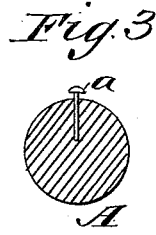
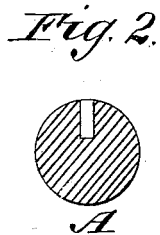
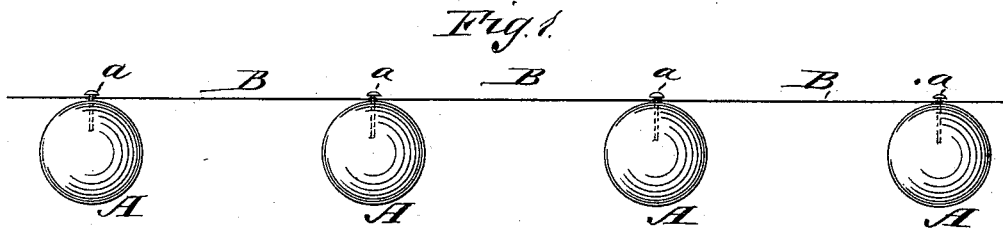


(No Model.)

W. E. BOYD.
SHOT CARTRIDGE.

No. 347,988.

Patented Aug. 24, 1886.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM E. BOYD, OF SELMA, ALABAMA.

SHOT-CARTRIDGE.

SPECIFICATION forming part of Letters Patent No. 347,988, dated August 24, 1886.

Application filed April 13, 1886. Serial No. 198,712. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. BOYD, of Selma, in the county of Dallas and State of Alabama, have invented a new and useful Improvement in Projectiles for Sporting-Arms, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a side elevation of a series of 10 bullets or shot connected together according to my improvement. Fig. 1^a shows the manner of connecting the ends of the thread together, and exhibits the relative position of the shot as they proceed from the gun. 15 Figs. 2, 3, 4, 5, and 6 represent different fastenings for the connecting thread, wire, or twine. Fig. 7 is a transverse section of a cartridge embodying my improvement. Fig. 8 is a longitudinal section of a cartridge-case 20 for breech-loading fire-arms. Fig. 9 is a longitudinal section of a shell charged with shot for muzzle-loading fire-arms.

Similar letters of reference indicate corresponding parts in the different figures of the 25 drawings.

The object of my invention is to provide means for limiting the spread of large shot, known as "buckshot," or bullets after leaving the gun, to increase the efficiency of the 30 shot.

My invention consists of the combination of parts, including their construction, substantially as hereinafter set forth, and pointed out in the claim.

35 In carrying out my invention I take shot or bullets A, made or prepared for the purpose, and connect the requisite number of them together in any convenient way at suitable intervals by a connecting string or wire, B, as 40 shown in Fig. 1, and fasten the ends of the thread together, as shown in Fig. 1^a.

As there are several equally-efficient methods of connecting the shot together, I do not limit or confine myself to any particular 45 method, and I may in some instances use ordinary shot.

In Figs. 1 and 3 I have shown pins or nails a driven into holes in the sides of shot, for receiving the string or wire B.

50 In Fig. 2 I have shown the shot A with a hole in one side to receive a wooden plug or a pin or nail.

In Fig. 4 the shot A is provided with a small eye, b, on one side thereof, for receiving 55 the connecting wire or twine.

In Fig. 5 I have shown a shot A provided with a curved hole, C, entering and emerging from the same side of the shot, for receiving therein the connecting wire or twine, and in Fig. 6 is represented a shot A having a slit, 60 D, cut in one side thereof, for receiving the connecting wire or twine, which is secured in the slit by compressing the material of the shot around the wire or twine.

The space between the shot A upon the 65 connecting wire or twine will be varied according to requirements; and when it is desired to have the shot scatter the spaces between them will be wide; but when it is desired to concentrate the shot upon a small 70 area the distance between the shot will be less.

When the shot are placed in the cartridge, as shown in Figs. 7, 8, and 9, the wire or twine B may be wound around the body of any light substance—such as cork, pith, or paper—and when the shot are projected from 75 the gun, as they tend to gradually separate from each other, the wire or twine will unwind from the body, and allow the shot to separate more or less, according to the length 80 of the twine between the shot. As the wire or twine B is designed only to limit the separation of the shot A, it is unnecessary that it should have a strength greater than that required to overcome the tendency of the shot 85 to separate.

My improved projectile is designed for use in hunting large game, and also in connection with arms employed in warfare, and it may be used to advantage in connection with 90 smooth-bore machine-guns.

Although I have mentioned thread, wire, or twine as the connecting medium for limiting the spread of the shot, I may employ a chain or any other suitable form of connector. 95

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

The cartridge having the charge of shot the individual members of which are connected together, and which spread apart at relatively fixed intervals, the connecting medium of which is wound around an intermediate piece of material disposed in the cartridge, substantially as and for the purpose 105 specified.

WILLIAM E. BOYD.

Witnesses:

A. G. HUNT,
W. P. PARRISH.