

(No Model.)

A. E. VEON.
SHOTGUN WAD.

No. 509,273.

Patented Nov. 21, 1893.

Fig. 1. *Fig. 2.*

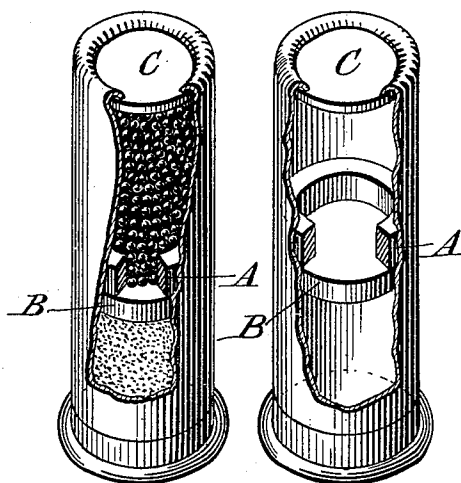


Fig. 3.

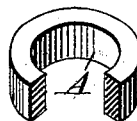
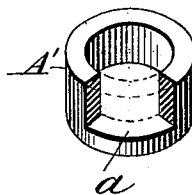


Fig. 4.



Attest:

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ANDREW E. VEON, OF BRAINERD, MINNESOTA, ASSIGNOR OF ONE-HALF TO JOSEPH WESTFALL, OF SAME PLACE, AND WILLIAM C. MIDDLETON, OF MILWAUKEE, WISCONSIN.

SHOTGUN-WAD.

SPECIFICATION forming part of Letters Patent No. 509,273, dated November 21, 1893.

Application filed June 29, 1891. Serial No. 397,951. (No model.)

To all whom it may concern:

Be it known that I, ANDREW E. VEON, a citizen of the United States, residing at Brainerd, in the county of Crow Wing and State of Minnesota, have invented certain new and useful Improvements in Shotgun-Wads; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to
10 which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

15 The main objects of my invention are to prevent wear and enlargement of the muzzles of choke-bore guns, to reduce the recoil and consequent kicking in shooting such guns, to produce better targets with less ammunition
20 than can be accomplished by ordinary loading, to secure greater concentration and penetration and more uniform distribution of the shot.

It consists essentially of a hollow shot wad
25 or ring of considerable thickness, made of some soft or compressible material such as felt, adapted to inclose a portion of the shot next to the powder and retain them in a compact form subjected equally and uniformly
30 to the force of the powder in their passage through the barrel.

In the accompanying drawings like letters designate the same parts in the several figures.

35 Figure 1 is a perspective view of a loaded cartridge provided with my improved shot wad, a portion of the cartridge shell being broken away to show the relative arrangement of the wads, powder and shot. Fig. 2 is
40 a similar view of an unloaded cartridge shell, a portion of which is broken away, showing the wads as they are designed to be arranged therein. Fig. 3 is a detached perspective view of the shot wad constituting the main essential feature of my invention, and Fig. 4 is a
45 similar view of a modified form of the wad.

My improved wad may be used either with or without cartridge shells, and is adapted for use either in choke-bore guns or in straight
50 cylinder-bore guns. It has special advantages

in shooting with choke-bore guns or guns having contracted muzzles, and as most of the modern shot guns are more or less choke bored or contracted at the muzzle, its advantages will be secured in a wide range of application.

Referring to Figs. 1 to 3 inclusive of the drawings, A represents a hollow cylindrical wad or ring, open at both ends and made of some suitable soft or compressible material
60 such as felt, preferably about three thirty-seconds of an inch in thickness and about half an inch in depth. I have found by repeated and careful tests made under varying conditions, that the dimensions of the wad above given
65 produce the most satisfactory results, although these dimensions may be varied to a certain extent for different sizes of shot and different kinds of shooting. The deeper the shot cavity or the greater the depth of the
70 wad, the greater will be the concentration and penetration of the shot, so that for long range shooting and close pattern targets the wads or rings of the greater depth are best
75 suited.

In loading either a cartridge shell or a gun directly, an ordinary disk-shaped powder wad B, is placed over the powder. My improved shot wad or ring, which is made to fit the bore of the gun or cartridge shell, is then placed
80 directly thereon, the powder wad constituting a back or bottom therefor. The shot are then placed in the cartridge or gun over the wads thus arranged, and are covered and held in place by a thin shot wad C, in the usual
85 manner.

The shot wad or ring is shown with a portion broken away to disclose more clearly the shot cavity which receives in loading and confines a portion of the shot next to the powder wad B. That portion of the charge of
90 shot so confined in the hollow wad or ring A, is that which directly receives the force of the powder in shooting, and is most compressed, and has by reason of such compression the greatest tendency outward against
95 the barrel, and to scatter when it leaves the barrel. In choke-bore guns with ordinary loading, this compression of the shot next to the powder and its outward tendency, rapidly
100

idly wears the contracted portion of the barrel, expands or enlarges the muzzle, and subjecting the barrel to great strain, is liable to burst it at or near the muzzle. With my improved hollow wad or ring, that portion of the charge subject to the greatest compression and therefore having the greatest tendency to wear and expand the barrel and to scatter after it leaves the barrel, is confined and held in a compact form centrally in the line of fire, subjected uniformly and evenly to the force of the powder. The wad or ring acts as a cushion between the shot and barrel, and being made of sufficient thickness and of compressible material, the contracted portion of the barrel is relieved of the strain and wear to which it is subjected by the shot in the ordinary method of loading. The friction between the shot and barrel being thus avoided at or least greatly reduced, and the shot being confined in a compact form in the best position to receive the full effect of the powder, greater concentration and penetration, and a more uniform distribution of the change are effected. Inasmuch as with the use of my improved wad greater concentration and more uniform distribution of the shot are secured, and the friction of the shot against the barrel is prevented or greatly reduced, a smaller charge may be used with equal or better results than are attainable by the old method of loading with ordinary wads.

With a smaller charge of shot as above stated, it is also feasible to use a smaller charge of powder. In this way a marked saving is effected in the cost of shooting, there is less jar and wear on the gun, the quantity and weight of ammunition necessary for a given amount of shooting are diminished, besides the advantages hereinbefore mentioned in the greater efficiency of shooting. The wad being compressed by the shot snugly against the barrel, serves incidentally as a cleaner, keeping the gun clear and free from incrustation and dirt.

The shooting of straight cylinder bore guns is also improved by the use of my improved shot wad, which produces in such guns practically the effect of a choke bore or contracted muzzle.

Referring to Fig. 4, A' represents a modified form of my improved shot wad, provided with a bottom *a*, a portion of one side being broken away to show more clearly the shot cavity. With this form of the wad the ordinary powder wad B is unnecessary. I prefer however, the form first described having both ends open, in connection with the ordinary powder wad, as it can be more economically produced in this form, and is practically as

convenient and effective in use, requiring no special loading device or apparatus.

With the new powerful, quick-acting nitro-powders which are much harder on guns, particularly of the choke-bore type, than the ordinary black powder, my improved wads are of particular advantage, relieving guns in which they are used of the excessive wear, jar and strain to which they would otherwise be subjected by the ordinary method of loading with such powder.

The liability and danger of bursting resulting from heavy loading and foul guns, as well as from the use of nitro-powder, are prevented by my device.

I claim—

1. A hollow shot wad or ring of considerable thickness, made of soft or compressible material, such as felt, with the walls of the shot cavity approximately parallel with the outer wall of the wad, whereby a soft compressible cushion is formed between the shot and the wall of the barrel which permits contraction in passing through the barrel and at the same time confines the shot in compact form within the compressible walls of the wad and centrally in the line of fire substantially as and for the purposes set forth.

2. The combination of a hollow shot wad open at both ends, made of compressible material, such as felt, of considerable thickness, affording a compressible cushion between the shot and the wall of the barrel permitting contraction in passing through the barrel, and at the same time confining the shot in compact form within the compressible wall of the wad and centrally in the line of fire and a disk shaped wad adapted to close one end of said shot wad and separate the shot from the powder, substantially as and for the purposes set forth.

3. The combination in a cartridge with a disk shaped wad placed between the powder and shot, of a hollow cylindrical shot wad placed upon said disk shaped wad, which serves as a bottom therefor, and confining a portion of the shot next to the powder, said hollow wad having yielding sides forming a compressible cushion between the shot and the wall of the barrel permitting contraction in passing through the barrel and at the same time confining the shot in compact form within the compressible walls of the wad and centrally in the line of fire substantially as and for the purposes set forth.

ANDREW E. VEON.

Witnesses:

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