E. MAYNARD.

Cartridge.

No. 42,388. Patented Apr. 19, 1864.

Fig: 1.

Fig: 2.

Fig: 3.

Fig: 4.

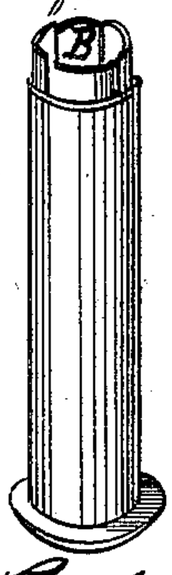

Fig: 6

Fig: 5.

Witnesses:
Randolph Boyle
Thomas Adams

Edward Maynard
By Robbins & Burr
atty's.

UNITED STATES PATENT OFFICE.

EDWARD MAYNARD, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN METALLIC WAD FOR CARTRIDGES.

Specification forming part of Letters Patent No. 42,388, *dated April* 19, 1864.

To all whom it may concern:

Be it known that I, EDWARD MAYNARD, of the city of Washington and District of Columbia, have invented a new and useful Improvement in Metallic Wads for Shot-Guns or Cartridges; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings which form a part of this specification, and in which—

Figure 3 is a side elevation, and Fig. 5 a bottom view, of my improved metallic wad for shot-guns; Fig. 1, a side elevation, and Fig. 2 a vertical section, of the same, in combination with a metallic shot-cartridge, *c*, for a breech-loading gun, represented as partially pushed down to its proper position. Fig. 4 represents one of my improved wads with slitted sides; showing also another mode of combination with a cartridge, viz., with the open end thereof forward. Fig. 6 is a detached view of my improved wad when slitted.

Similar letters indicate like parts in each of the drawings.

The object of my invention is to provide a wad for shot-guns which shall economize space, confine the explosive and impelling gas produced by firing the charge in such a manner as to prevent its escape in advance of the shot, and, in combination with loaded metallic cartridges, afford them protection from dampness.

To attain this end, I have invented a cup-shaped wad, A, made of thin metal, by simply "striking up" cylindrical sides from a disk in the customary manner. The length of the sides of the wad should be so proportioned as that, when placed in the barrel of a gun, it shall occupy space enough longitudinally to prevent its turning therein when shot forward, as is usual with ordinary wads, and may properly be equal to at least half its diameter.

The cylindrical sides or rim of the wad not only serve as guides and stays to keep it exactly in a plane at right angles to the bore of the gun, but will, by their expansion when the gun is fired, prevent completely the escape of gas in advance of the shot, and thus insure their perfect and regular expulsion.

This expansion of the sides of the wad, which causes them to fit with the utmost nicety the bore of the gun, is attained, if the open end of the wad be placed outward when dropped in the gun (as shown in Fig. 4) by the resistance or inertia of the air confined in the barrel, as it is acted upon by the explosive force of the charge, a force which will itself cause their expansion when the wad is placed in the gun or cartridge with its open end or mouth inward, as in Fig. 1.

In order to accommodate a given wad in shot-guns of varying calibers, the rim thereof may be slitted (as is shown in the wad B of Figs. 4 and 6 of the accompanying drawings) to allow its greater expansion.

My improved wad, from its thin metallic structure, is peculiarly useful for combination with metallic or other shot-cartridges. Its novel form permits it to be securely fitted to the cartridge in such a way as to render it completely water-proof and secure from dampness, rendering it at the same time more neat and compact, but it is also most valuable in all cases where great accuracy and projectile force are required.

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

My improved gun-wad, formed of a circular disk, with a projecting cylindrical edge or rim, substantially in the manner and for the purpose herein set forth.

This specification of my new and useful improvement in metallic wads for shot-guns, signed by me this 28th day of May, A. D. 1863.

EDWARD MAYNARD.

In the presence of—
RANDOLPH COYLE, Jr.,
DAVID A. BURR.