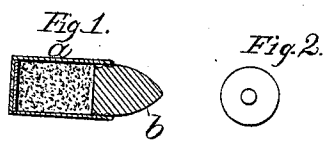


E. MAYNARD.  
Cartridge.

No. 15,141.

Patented June 17, 1856.



# UNITED STATES PATENT OFFICE.

EDWARD MAYNARD, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN CARTRIDGES.

*Specification forming part of Letters Patent No. 15,141, dated June 17, 1856.*

*To all whom it may concern :*

Be it known that I, EDWARD MAYNARD, of the city and county of Washington, in the District of Columbia, have invented and constructed a new manufacture in the shape of an Improved Article of Fixed Ammunition for Breech-Loading Fire-Arms; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification—

Figure 1 being a longitudinal section in a line passing through the center of a piece of my improved fixed ammunition, and Fig. 2 a rear-end view of a piece of said ammunition.

Each piece or cartridge of my said improved fixed ammunition consists of a cylindrical-shaped shell, *a*, of brass, or some other tough and stiff metal, having a centrally-perforated bottom, rendered impervious to air and water by internal packing, then charged with powder, and then combined with a projectile, *b*, of the shape and in the manner substantially as hereinafter set forth.

The exposed portion of the projectile *b* is of a pointed or semi-oval shape, and the portion of said projectile that enters the shell is of a cylindrical shape, of such a size as to closely fit within the shell, and having a sufficient length of bearing-surface to insure the point of the projectile being retained in a line with the axis of the shell. To insure a perfectly tight joint between the outer periphery of the projectile and the inner periphery of the shell, annular grooves are formed in the cylindrical portion of the projectile, and filled with any suitable greasy composition. The peripheries of the ledges between the grooves in the cylindrical portion of the projectile, fitting closely against the inner periphery of the shell, will prevent the grease working inwardly to injure the powder, or outwardly to soil anything that the ammunition may be brought in contact with. The said greasy composition serves the purpose of rendering the joint between the projectile and the shell perfectly tight while the ammunition is in a fixed state; and when the ammunition is discharged, the said greasy composition serves to lubricate the bore of the gun.

The perforated back end of the shell may be

closed and made perfectly impervious to air or water by placing one or more disks of waxed or gummed paper against its inner surface before placing the powder within the shell.

The projectile should be pressed into the shell with a sufficient degree of force to insure close contact between the inner end of the projectile and the powder, care being taken in so doing not to turn the point of the projectile out of line with the axis of the shell.

After a cartridge has been discharged, the shell *a* should be removed from the chamber of the gun.

In using my improved fixed ammunition, the projectile is set more accurately within the chamber of the fire-arm than it is possible to set it in the best muzzle-loading target-rifles. The cartridges may be exposed with impunity in any weather, and may be handled roughly with less liability to injury or accident than would be likely to occur from such usage of any other fixed ammunition for small-arms known to me.

The shells may be charged a great number of times, with less apparatus and at less cost than that of the ordinary cartridges, and the expense of the shells is so small as to be quite insignificant when taking into account the great advantages possessed by this ammunition.

As a matter of course, the shells of my improved cartridges must be of such a size as to fit accurately within the chamber of the gun the said cartridges are prepared for.

I am aware that cartridge-cases of a tapering shape have been made of sheet-copper or other hard metal, combined with soft-metal rings, as described and represented in a patent granted to A. E. Burnside, March 25, 1856; and I am also aware that the said cartridge can only be used in a movable breech-piece, and that it does not possess in other particulars the peculiar advantages which distinguish my improved cartridge for breech-loading fire-arms; therefore,

What I claim as my invention, and desire to secure by Letters Patent, as a new manufacture, is—

My improved cartridge for breech-loading fire-arms, composed of a hard-metal cylindrical case, charged with powder and combined with

a projectile of such a shape that, whether the case receive a large or a small charge of powder, the said projectile is self-retained in contact with the powder, in such a position that its point must be coincident with the axis of said case, and a perfectly tight joint formed between said projectile and case, by filling the grooves in the former with greasy matter, substantially as herein set forth.

The above specification of my improved fixed ammunition for breech-loading fire-arms signed this 16th day of April, 1856.

EDWARD MAYNARD.

Witnesses:

Z. C. ROBBINS,

M. H. MANSFIELD.