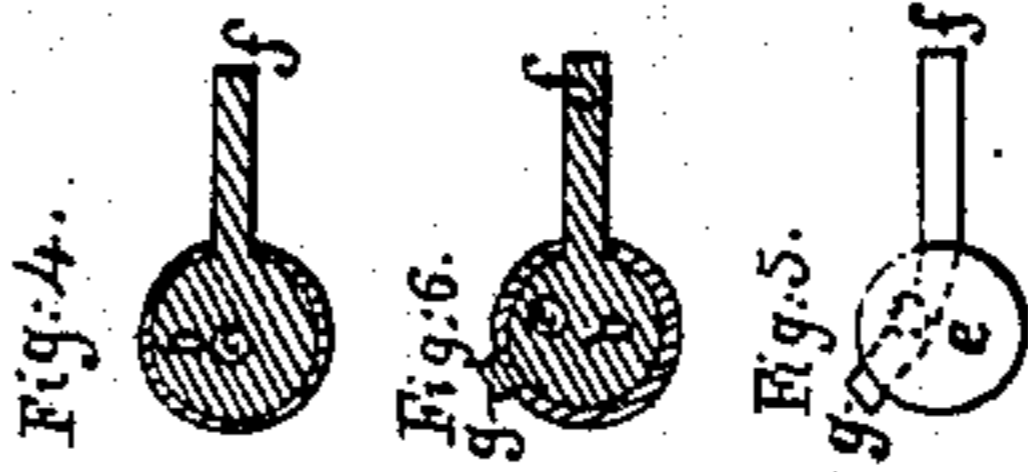
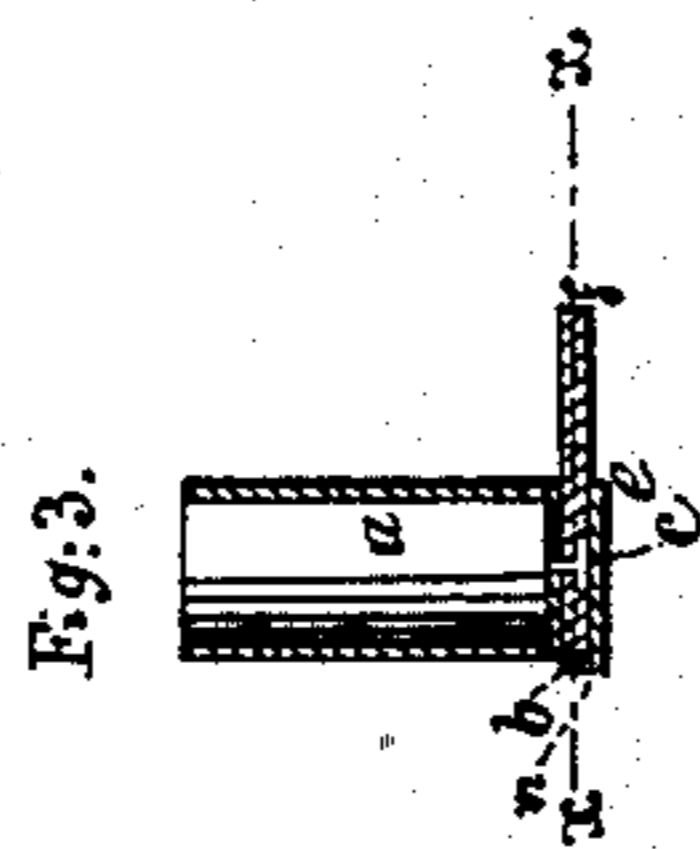
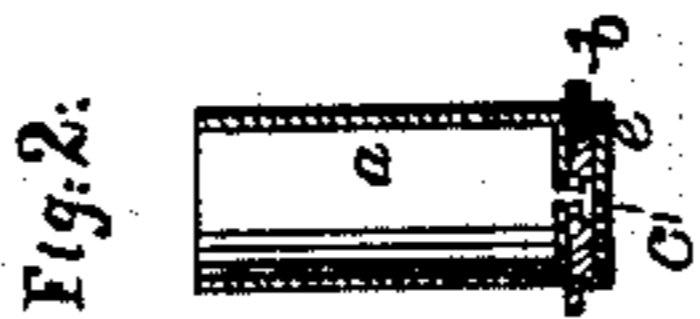


E. MAYNARD.

Cartridge.

No. 59,044.

Patented Oct. 23, 1866.



Witnesses.

*W. Purvis*  
*Mellor Purvis*

*Edward Maynard*

Inventor.

*David Alburn*  
Atty.

# UNITED STATES PATENT OFFICE.

EDWARD MAYNARD, OF TARRYTOWN, NEW YORK.

## IMPROVEMENT IN PRIMING METALLIC CARTRIDGES.

Specification forming part of Letters Patent No. 59,044, dated October 23, 1866; antedated October 3, 1866.

To all whom it may concern:

Be it known that I, EDWARD MAYNARD, of Tarrytown, in the county of Westchester and State of New York, have invented a new and useful Improvement in Primed Cartridges; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a central longitudinal section of the simple form of my improved primed cartridges; Figs. 2 and 3, similar sections, respectively, of modifications thereof; Fig. 4, a transverse section through the base of the cartridge illustrated by Fig. 3, in the line  $x$  thereof; Fig. 5, a bottom view of a second form of retracting-arm cartridge as improved by my invention; and Fig. 6, a transverse section through the bottom thereof, showing the position of the priming-cavity therein with reference to the arm and supporting-lug.

Similar letters indicate like parts in all of the figures.

The nature of my invention consists in the combination of an outer cap or cover of thin metal with a priming-recess formed exteriorly in the base of a cartridge, when said base is provided with a projecting rim or flange, or with pins or arms, so as to be firmly supported when placed in the gun, and is made of such strength as to afford proper resistance to the blow of the hammer in firing the charge.

Fig. 1 illustrates my invention as applied to the metallic cartridges for which I obtained Letters Patent on the 28th day of May, 1861. These cartridges are constructed of a thin metallic cap,  $a$ , secured by solder or otherwise upon a solid disk,  $b$ , of a diameter so far greater than that of the cup as to project and form a supporting-flange around the bottom thereof, as seen in the drawings.

In the center of the thick double bottom of this cartridge I form a small priming-cavity,  $c$ , of any suitable form, having a vent communicating therefrom with the interior of the cartridge. When this cavity has been filled with fulminate I protect it by a cap,  $e$ , of thin

metal, made to fit closely over the entire disk forming the base of the cartridge. This cap  $e$  shields completely the fulminate from exposure, and, as it extends to the outer circumference of the rim of the cartridge, will, when it is discharged, protect the firing-pin and the lock from the gases leaking back from the charge, by conveying them outwardly. This metallic cap may be combined with the base of any cartridge where said base is firmly supported in the gun either by means of a projecting flange, as in Figs. 1, 2, and 3, or by supporting lugs or pins, as seen in Figs. 5 and 6, and to any cartridge having such a solid supported base, whatever the composition of the cup or casing may be, whether of papier-maché, metal, or otherwise.

In Fig. 2 a modification of the base is illustrated, in which, although a sufficiently solid supporting-flange is retained, the central part only of the disk is covered by the shielding-cap  $e$ .

In Fig. 3 its application to such forms of cartridges as are provided with a solid retracting-arm, as set forth in my Letters Patent of September 8, 1863, is shown.

In applying my improvement to these cartridges, the solid base must be either slightly enlarged, (see  $m$  in Fig. 3,) to provide a supporting-flange thereto, or a projecting lug,  $g$ , must be formed, (as seen in Figs. 5 and 6,) in addition to the arm, for the same purpose.

When a lug is formed upon the base of the cartridge in relation to the retracting-arm it becomes necessary in such cartridges as are to be used in my improved fire-arms having a hinged breech-block, or others of a similar pattern, to place such lug  $g$  at the end of the chord of an arc less than a semicircle; and in order to obtain proper resistance to the blow of the hammer upon the base when thus supported, I place the priming-recess in such cartridges in a line between the arm  $f$  and lug  $g$ , as illustrated in Figs. 5 and 6, rather than in the center thereof.

In fitting the shielding-cap  $e$  over and upon the base  $b$  of such cartridges, I cause its rim to embrace the retracting-arm and the lug by cutting away said rim at these points.

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

A closely-fitting metallic shield or cover, in combination with the base of a cartridge, when said base is so constructed as to receive solid

support from the gun, and is primed exteriorly, substantially in the manner and for the purpose herein set forth.

EDWARD MAYNARD.

Witnesses:

H. H. YOUNG,

DAVID A. BURR.