J. H. GILL.

Cartridge for Fire-Arms.

No. 163,181. Patented May 11, 1875.

Fig. 1.

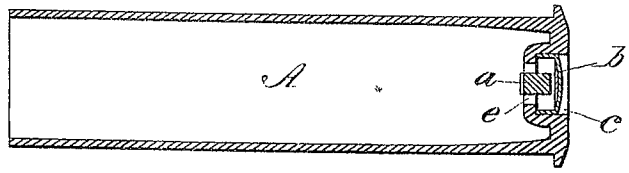


Fig. 2.

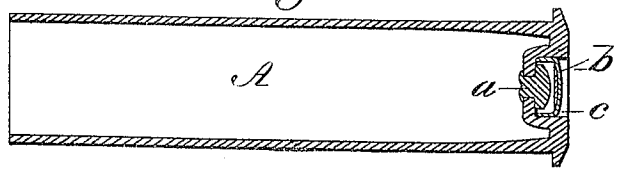


Fig. 3.

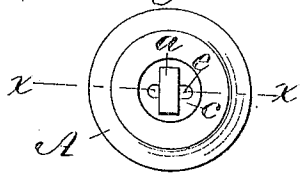
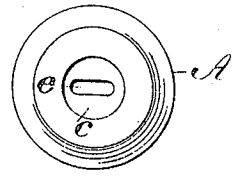


Fig. 4.



Witnesses:
Hill & Dodge
Donn Twitchell

Inventor:
J. H. Gill.
by Dodge & Son
Attys.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

JABEZ H. GILL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO FRANK H. PHIPPS.

IMPROVEMENT IN CARTRIDGES FOR FIRE-ARMS.

Specification forming part of Letters Patent No. **163,181**, dated May 11, 1875; application filed April 23, 1875.

To all whom it may concern:

Be it known that I, JABEZ H. GILL, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain Improvements in Cartridge-Shells, of which the following is a specification:

My invention relates to metallic cartridges; and the invention consists in providing the shell with a fixed anvil in connection with the vent-holes, as hereinafter more fully described.

Figure 1 is a longitudinal section on the line *x x* of Fig. 3. Fig. 2 is a similar view taken on a line at right angles to that of Fig. 1, and Figs. 3 and 4 are rear-end views.

In constructing my improved cartridge, I make the shell A by drawing it from sheet metal, in the usual manner. In the head is formed a circular recess or pocket, *c*, by punching the metal inward, and across the bottom of this recess or pocket I cut a slot, *e*, as shown in Fig. 4. I then construct an anvil, *a*, by punching or cutting the same from a piece of thick sheet metal, preferably of brass, the form of which is shown in Fig. 2. The anvil, as there shown, has shoulders resting on the solid wall or bottom of the pocket at each side of the slot, and a neck or stem, which fits in the slot *e*, extending slightly through it into the interior of the shell, to permit of its being riveted, and thus secure it permanently in position, as shown in Fig. 2. It will be observed that the anvil *a* is arranged crosswise of the slot, at the center thereof, as shown in Fig. 3, the slot extending beyond the anvil at each side, thus leaving vent-holes on both sides, opening directly into the shell, as shown in Figs. 1 and 3.

In using the shell the cap or primer *b* is placed in the pocket, as shown in Figs. 1 and 2, so that when struck by the firing-pin it will be driven against the head of the anvil.

By this method of providing the shell with a fixed anvil, the base of the shell can be made thicker and stronger than where the anvil is formed by punching back a portion of the metal of the shell itself; and the shell being provided with an anvil obviates the necessity of providing each primer with one. It being fixed in place, the shell can be recapped and fired as often as desired without the necessity, delay, or trouble of inserting a new anvil each time, and there is no danger of its being lost in removing the cap or primer.

Having thus described my invention, what I claim is—

A cartridge-shell having a slot across the bottom of the pocket or recess *c*, with a solid anvil, *a*, secured in said pocket, substantially as described, whereby the anvil is retained in place, and a vent-opening is provided at the sides thereof, as set forth.

JABEZ H. GILL.

Witnesses:

JACOB Y. MARTINDALE,

JOHN BROUS.