

D. SMITH.  
Cartridge.

No. 91,278.

Patented June 15, 1869.

Fig. 1

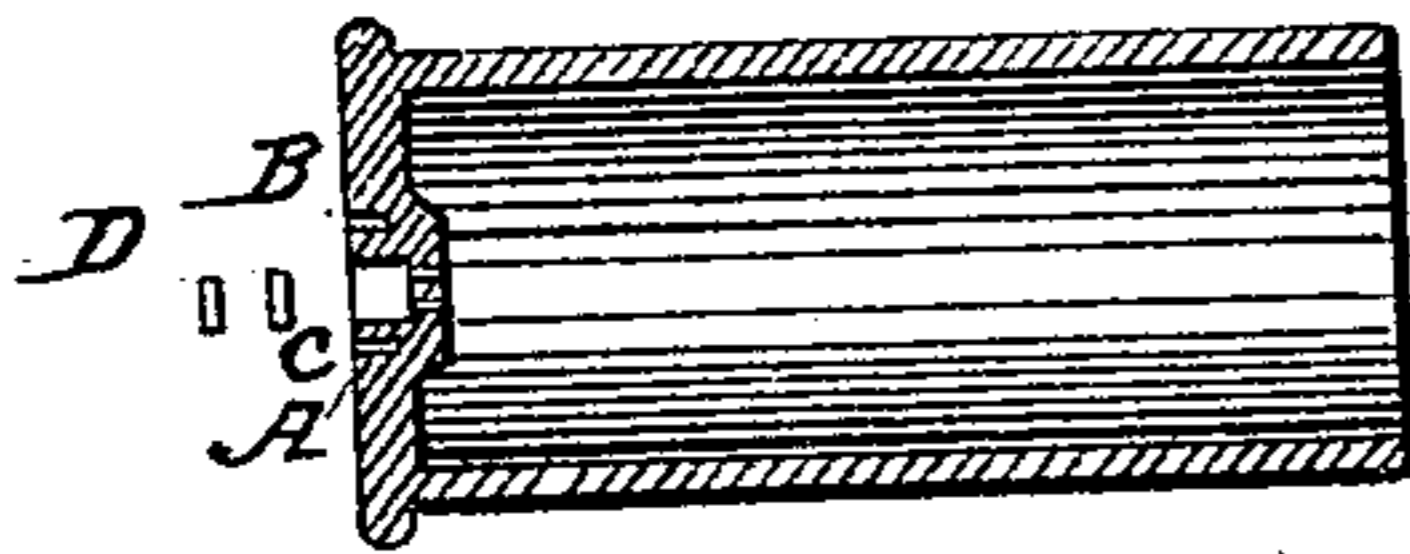


Fig. 2

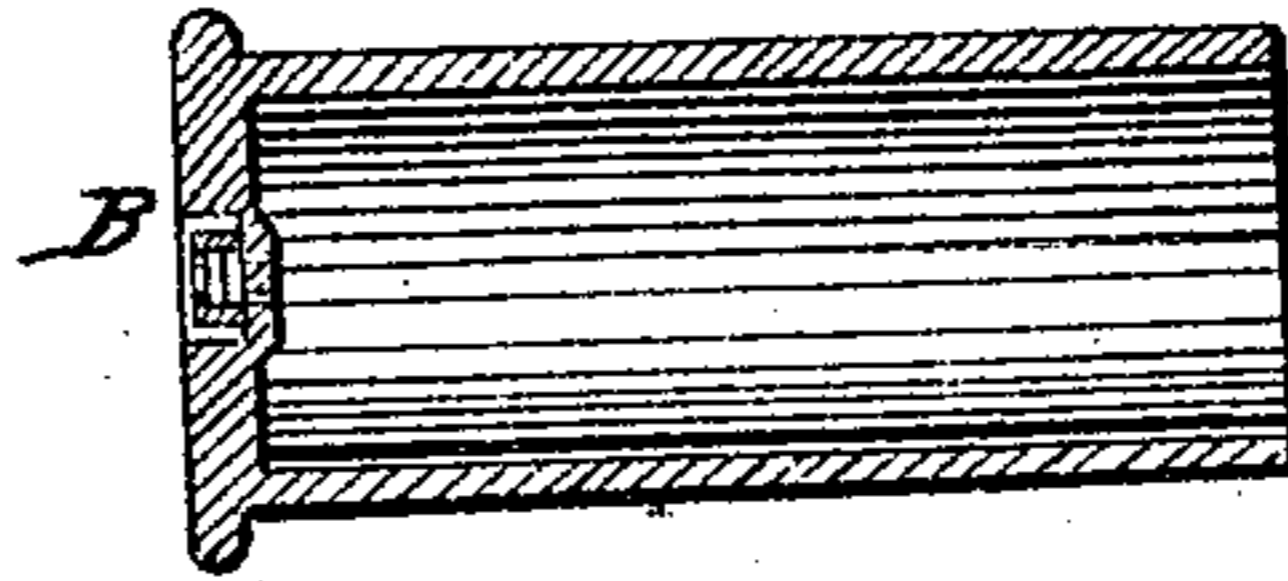


Fig. 3

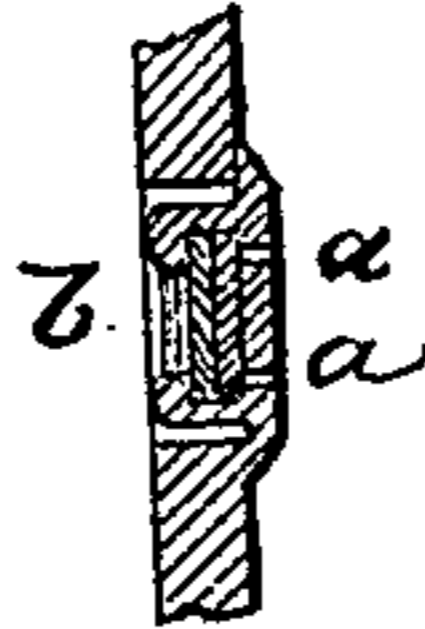


Fig. 4

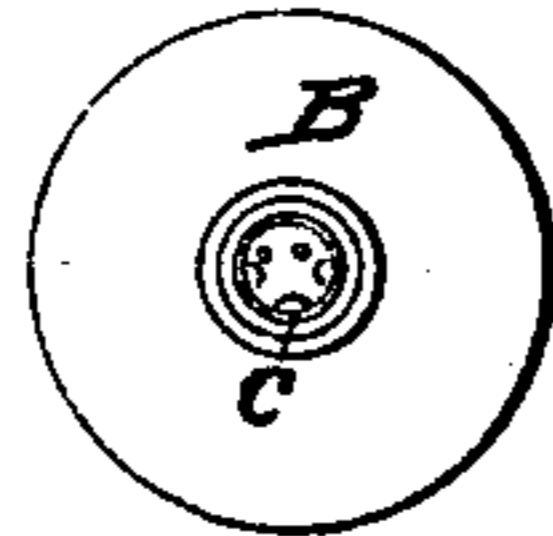
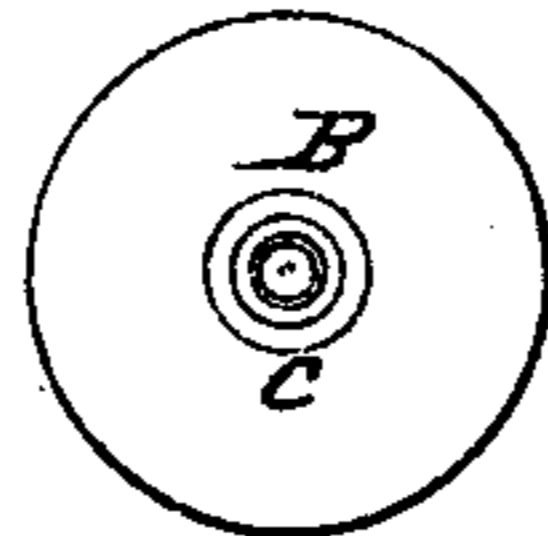


Fig. 5



Witnesses  
G. D. Gilmore  
J. B. Peyton

Inventor  
Dexter Smith  
by his attorney  
Gardiner Hyde

# UNITED STATES PATENT OFFICE.

DEXTER SMITH, OF SPRINGFIELD, MASSACHUSETTS.

## IMPROVEMENT IN METALLIC CARTRIDGES.

Specification forming part of Letters Patent No. 91,278, dated June 15, 1869.

*To all whom it may concern:*

Be it known that I, DEXTER SMITH, of Springfield, Hampden county, State of Massachusetts, have invented certain new and useful Improvements in Center-Fire Cartridges; and I do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the drawings, Figures 1 and 2 are sectional views. Figs. 4 and 5 are corresponding end views, and Fig. 3 is an enlarged detail view.

This invention relates to the well-known class of cartridges which is metallic called "center-fire;" and my improvements consist in the peculiar construction of the shell whereby the fulminate is held in its place in the center of the head, ready to be exploded by the blow of the hammer.

In Fig. 1, which shows the shell, before the fulminate is put in place, in section, it is seen that in the center of the head is a cavity extending from the rear outside nearly through the head. Sufficient stock is left, however, at the bottom of this cavity A to form the anvil for the fulminate, which is here situated when in place. Two small holes, *a* and *a*, are drilled through the head from the cavity A, to communicate with the inside of the shell and allow the fulminate to set the charge off when exploded.

The method of holding the fulminate in place is as follows: By the same operation and tool

that punches in the cavity A, a circular cavity, B, is formed around it. This leaves a flange, *c*, around the cavity A, and when the fulminate is put in place and a small metal disk, D, fitting the bore of cavity A, placed behind it, the edge of the flange C is turned over inwardly, being crimped by a suitable tool, and fastens in securely the fulminate, which is held between the bottom of the cavity A and the disk D.

The blow from the hammer is received on the central part of the disk D, and the fire from the fulminate passes through the holes *a* and *a*, as before stated.

The advantages of this construction lie in the simplicity with which the shell is made and the fulminate held in place, the strength and safety of the cartridge, and the cheapness with which they can be manufactured.

Now, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The arrangement of the cavity A, with flange C around it, in the rear central surface of the shell-head, and small holes *a* extending through, and the manner of holding the fulminate in place by means of the flange C being turned over, substantially as herein shown and described.

DEXTER SMITH.

Witnesses:

EDWARD H. HYDE,  
J. B. GARDINER.