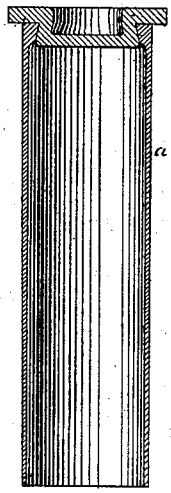
T. T. S. LAIDLEY.

METALLIC-CARTRIDGE.

No. 193,612. Patented July 31, 1877.

Fig. 1.



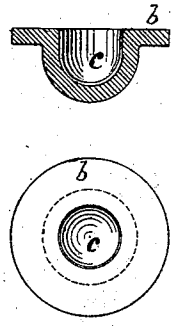
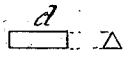


Fig. 2.



Witnesses
Charles A. Fregg
Geo. Mills

Inventor:
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UNITED STATES PATENT OFFICE.

THEODORE T. S. LAIDLEY, OF WATERTOWN, MASSACHUSETTS.

IMPROVEMENT IN METALLIC CARTRIDGES.

Specification forming part of Letters Patent No. **193,612**, dated July 31, 1877; application filed March 6, 1877.

To all whom it may concern:

Be it known that I, THEODORE T. S. LAIDLEY, of Watertown, Middlesex county, Massachusetts, have invented a new and useful Improvement in Metallic Cartridges; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention has for its object, first, to form a cartridge-case which may be fired repeatedly, shall be strong and not liable to burst at the head, and may be readily made; and, secondly, to furnish an anvil of approved form, combining certainty of fire with facility of assembling.

Figure 1 represents a section of the case, showing the construction of the head and how it is secured. Fig. 2 represents the anvil.

To make my improved cartridge-case the shell *a* is formed in the usual way, with a closed end of greater thickness than the side walls, and a circular hole is punched in the center of the closed end. The head *b* is punched from sheet-brass about seven-hundreths of an inch thick, and a shallow cup, *c*, formed in it at the same time. The shell and head are assembled and securely joined by riveting the cup on the inside by pressure, the bottom of the cup being pressed, at the same time, flat on the inside, or a raised ridge formed, passing through the center of the bottom, to serve as an anvil; or the anvil may consist of a short piece of wire, cut to such a length as shall fit in the cup and allow the primer to pass over it. Wire having an equilateral triangular cross-section is preferred. This anvil has the advantage of always resting securely on a broad base, and of always presenting a sharp edge to the blow of the hammer or firing-pin, and is more readily and securely adjusted in place in the process of manufacture than any other form with which I am acquainted, that will at the same time give the advantages of a sharp edge to be struck for the explosion of the fulminate.

I claim as my invention—

1. The herein-described method of making a cartridge-shell, which consists in forming a shell closed at one end, punching a hole through the closed end, inserting the cup-shaped head *b* in the hole, and riveting the head to the shell by pressure from the inside, as set forth.

2. The combination of the anvil *d*, formed of a piece of triangular wire, with the cup *c* formed in the head *b* of a cartridge-case, substantially as described, and for the purpose specified.

THEODORE T. S. LAIDLEY.

Witnesses:
CHARLES A. GREGG,
GEORGE MILLS.