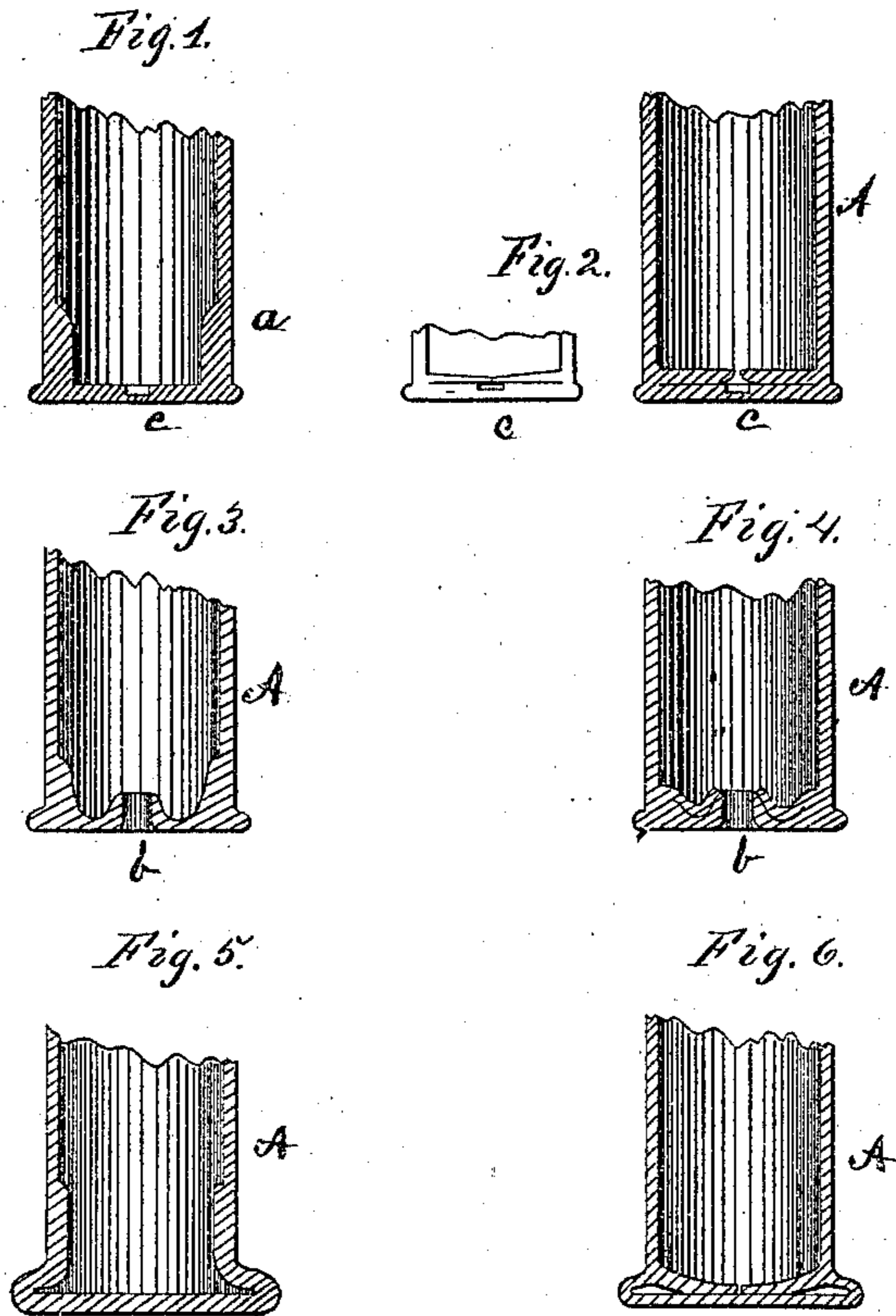


ALWIN PAYNE.

Improvement in Metallic Cartridges.

No. 121,808.

Patented Dec. 12, 1871.



Witnesses:

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# UNITED STATES PATENT OFFICE.

ALWIN PAYNE, OF BRIDGEPORT, CONNECTICUT.

## IMPROVEMENT IN METALLIC CARTRIDGES.

Specification forming part of Letters Patent No. 121,808, dated December 12, 1871.

*To all whom it may concern:*

Be it known that I, ALWIN PAYNE, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Cartridges; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figures 1, 3, and 5 represent sections of cartridges before the metal is driven down to form the re-enforce, and Figs. 2, 4, and 6 represent corresponding cartridges finished and complete.

In the manufacture of cartridges it is desirable to re-enforce the base or head of the same, and various means and contrivances have been devised to accomplish said object; and my present invention has for its object to accomplish said results in a cheaper and better manner than has heretofore been known; and to this end it consists, first, in an improvement on my patent of October 31, 1871, No. 120,529, by which I dispense with any intervening re-enforce-disk or cup, and make the cartridge so that the metal driven down or cut away from the walls near the base shall fill up and re-enforce the head, substantially as shown in the drawing. My invention consists, also, in combining the metal driven down to re-enforce the base with the fulminate-pocket, so as to make it subserve the double purpose of a re-enforce and an anvil.

A represents the body of the shell, and *a* the re-enforce or thick part of the tube as the case appears before the same is driven down to form the re-enforce of the base or head. *c* is the fulminate-pocket, as shown in Figs. 1 and 2. In

Fig. 2 it will be seen that the metal driven down comes together and covers the pocket *c*, leaving an irregular seam in the center through which the flame will readily pass upon the ignition of the fulminate. It will also be observed that a complete, closed, re-enforced, and primed cartridge is made out of one piece of sheet metal. In Figs. 5 and 6 the flange is shown to be made with a fold, as in ordinary thin-metal cartridges; and in Fig. 6 said fold is closed, and the metal turned down acts as a valve (as well as a re-enforcement) to prevent the entrance of any of the gases from the explosion of the charge; it thereby prevents any possibility of the bulging or swelling at or near the flange or head, and consequent sticking in the gun upon firing the same. Fig. 3 represents a section of a cartridge intended to be primed by means of a cap inserted from the outside into the tubular opening *b*; and Fig. 4 shows the metal of the body of the case after it has been driven down so as to not only re-enforce the head or base, but the cap-tube *b* also.

What I claim, and desire to secure by Letters Patent, is—

1. A cartridge-case wherein the head thereof is re-enforced by metal cut and punched or driven down from the wall of said case, substantially as described.

2. A cartridge-case in which the anvil is formed and the base thereof re-enforced by the metal driven down, substantially as above described.

ALWIN PAYNE.

Witnesses:

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