

ALWIN PAYNE.

Improvement in Metallic Cartridges.

No. 120,529.

Patented Oct. 31, 1871.

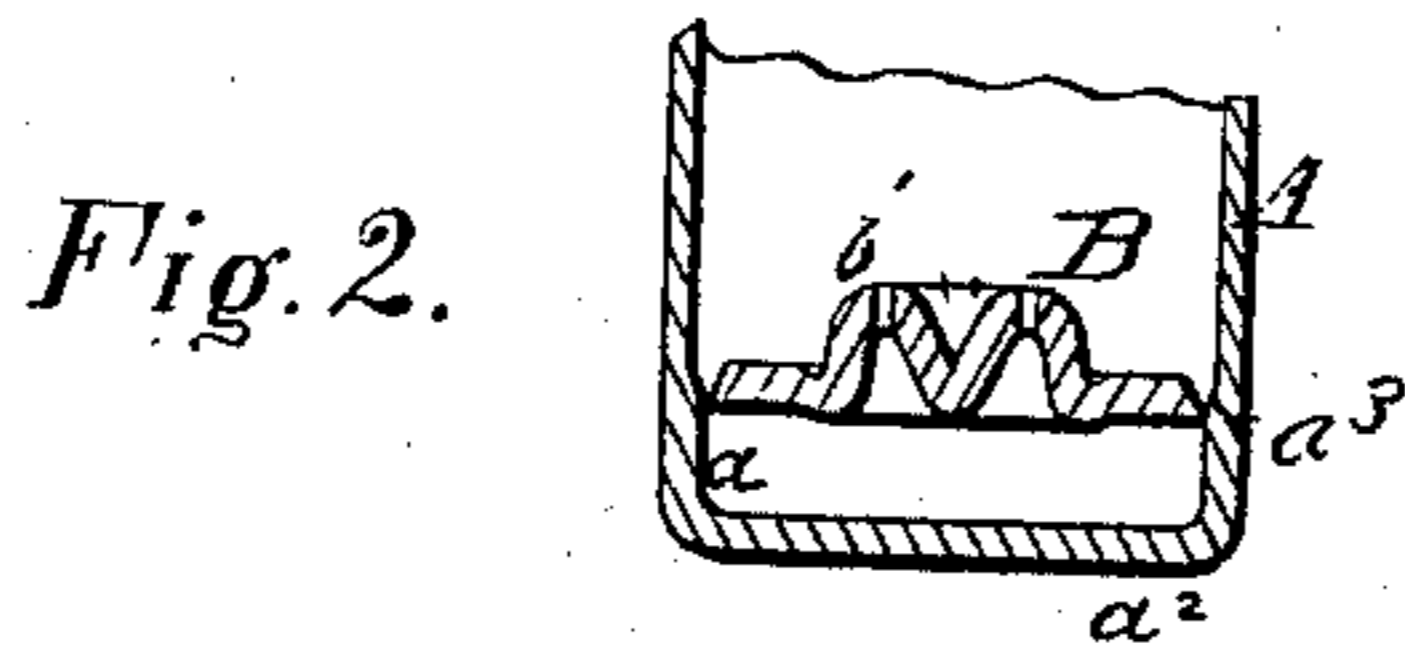
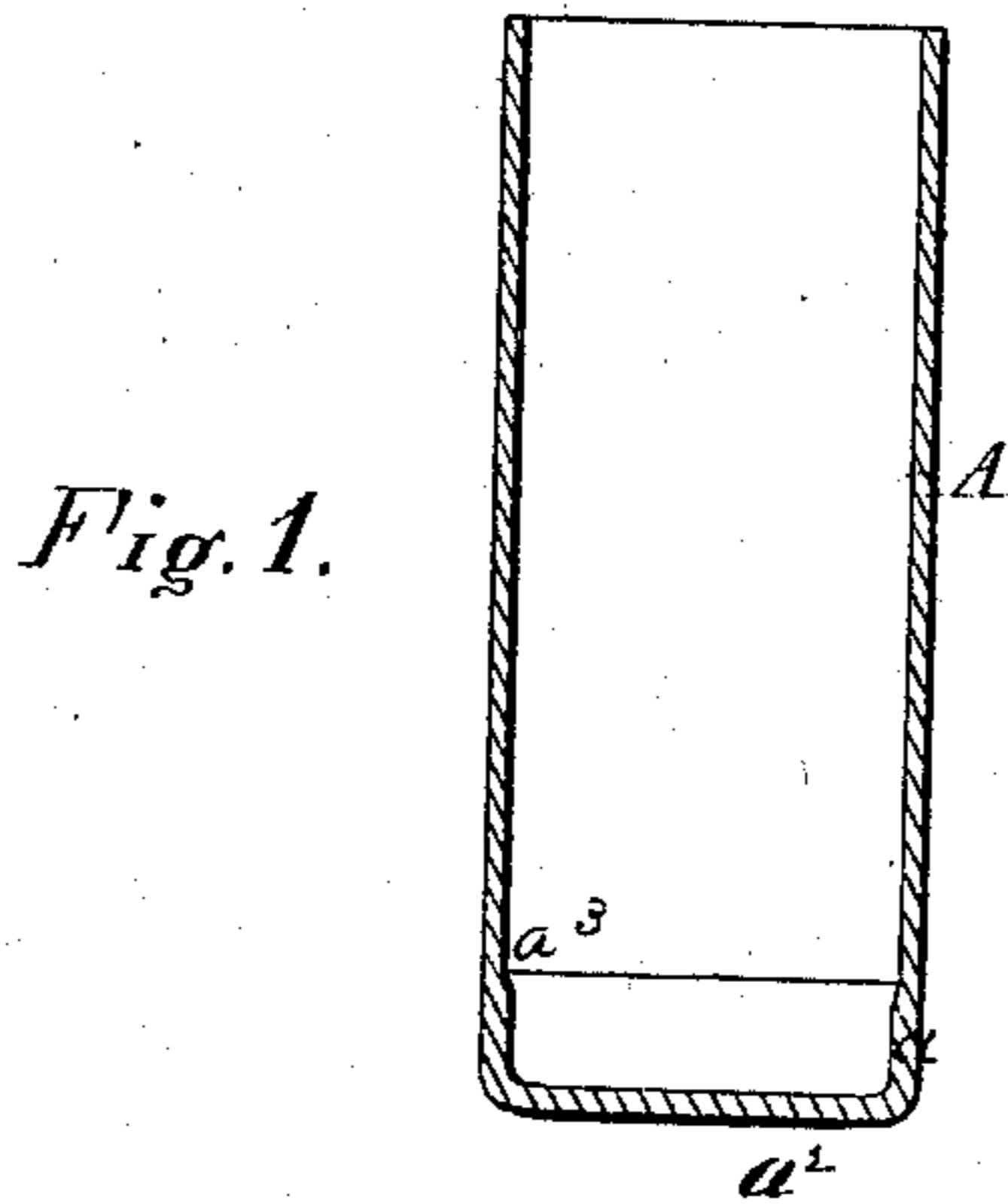
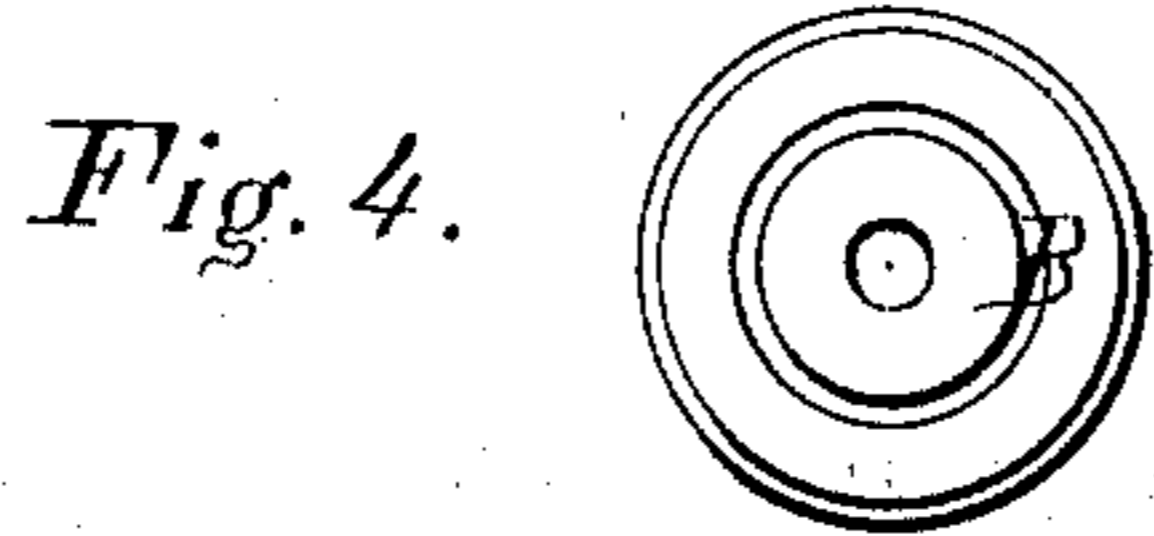
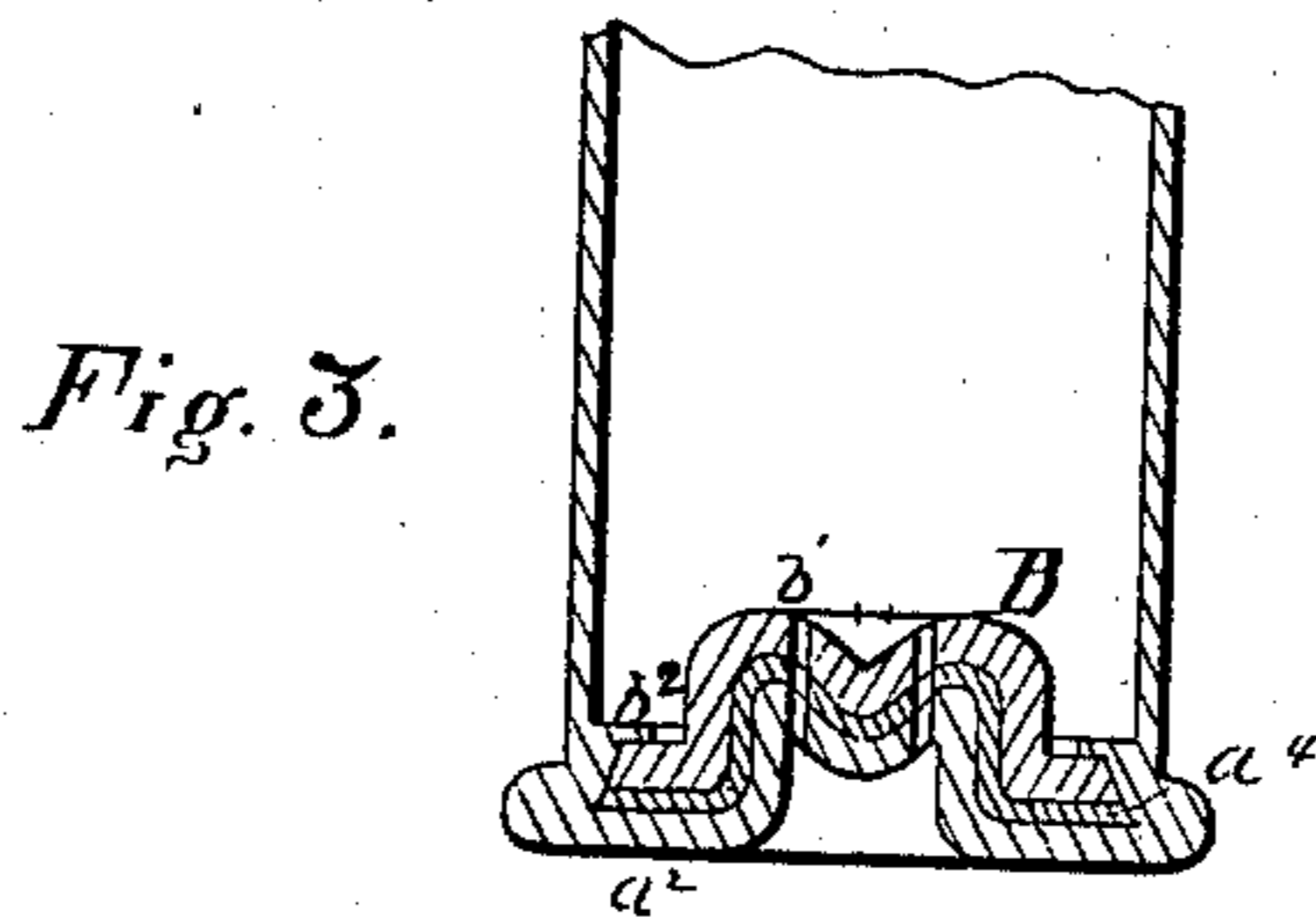
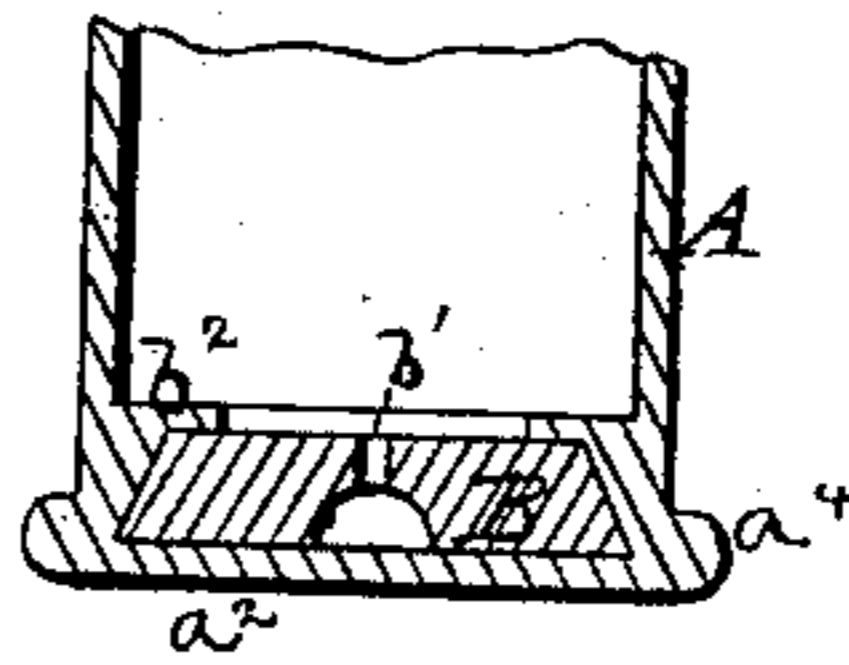


Fig. 5.



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. 120,529, dated October 31, 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 a new and valuable Improvement in Cartridge-Shells; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a longitudinal section of unfinished cartridge-shell without the anvil. Fig. 2 is a longitudinal section of cartridge-case, showing anvil above re-enforcement. Fig. 3 is a longitudinal section of cartridge-case, showing anvil secured in place. Fig. 4 is a top view of anvil; and Fig. 5 is a vertical section, showing the anvil and fulminate-pocket.

This invention has relation to metallic cartridges; and it consists in the construction of the shell or case and the novel method of arranging and fastening the anvil or anvil re-enforce, as hereinafter described.

In the drawing, A represents the cylindrical shell or case of an unfinished cartridge, which I construct with an internal re-enforcement, a , near the butt or closed end a^2 , terminating in a shoulder, a^3 . B represents the cartridge-anvil, or a re-enforcement to the cartridge-anvil, of a circular or disk-shape, and formed with the cup b to hold fulminating-powder, or with perforations b^1 to let the spark from a cap pass through, and with its periphery or rim beveled off, as shown, for the purpose hereinafter described. I make this anvil of a size to fit closely within the re-enforcement a , and having first inserted a packing, a^4 , of any suitable material, to prevent the escape of gas, I press the anvil down as closely as possible to the end of the cartridge-case, and then, by the use of a die and punch, depress the center of the butt a^2 to make it conform to the shape of the anvil, and to thereby so re-enforce it as to render

it strong enough to withstand the percussion of the hammer. I next (or before having pressed the butt a^2) take a cylindrical punching-chisel of a diameter equal to that of the cartridge-case beyond the re-enforcement, and drive it down into the case, causing it to separate the metal of the re-enforcement, and to press it down over the edge of the anvil, so as to form a flange, b^2 , which will hold the anvil securely in its proper position. In pressing down the metal to form this flange it swells so as to coincide and fit closely against the beveled periphery of the anvil or anvil re-enforcement B, thereby rendering it more firm and secure. The external flange e of the case is formed at the same time that the depression is made in the butt.

I have above described a cartridge-case and anvil constructed according to the principles of my invention; but I do not wish to confine myself to any particular form of anvil, or other part not absolutely material to said invention.

The chief elements of the invention are the re-enforcement of the case and the method of fastening the anvil, or what may be termed a re-enforcement to the anvil, by pressing down said re-enforcement so that it shall form a flange or guard to secure the anvil in place.

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

1. The combination herein shown of the re-enforced shell A and disk or anvil B, whereby said disk or anvil is firmly secured in place by upsetting or turning the metal of the case over the disk or anvil, substantially as specified.

2. The improved cartridge-shell, having the flange b^2 to hold the anvil or anvil-re-enforcement B, when said flange is formed from the re-enforcement a , for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

Witnesses:
D. D. KANE,
P. C. MASL.

ALWIN PAYNE.

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