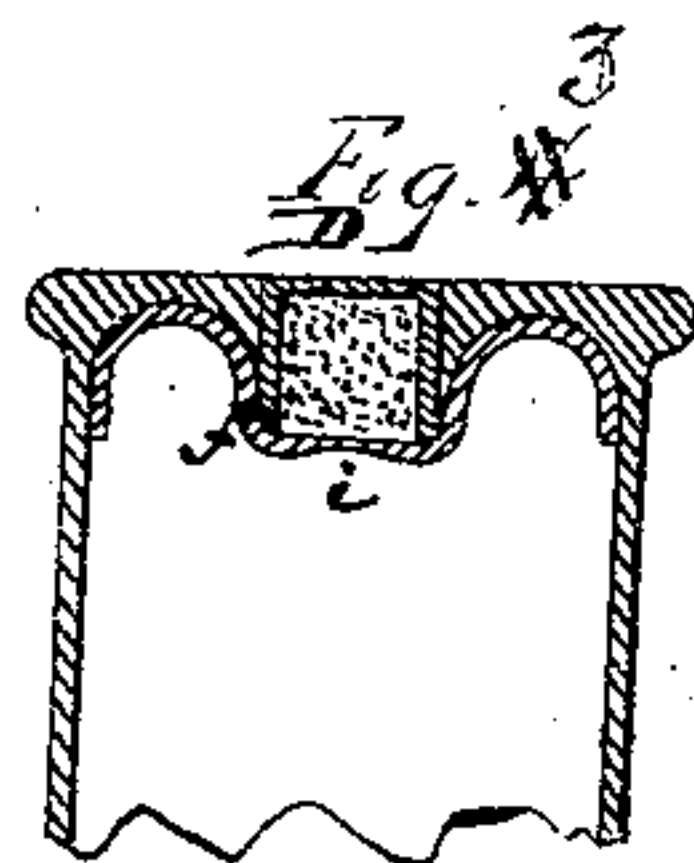
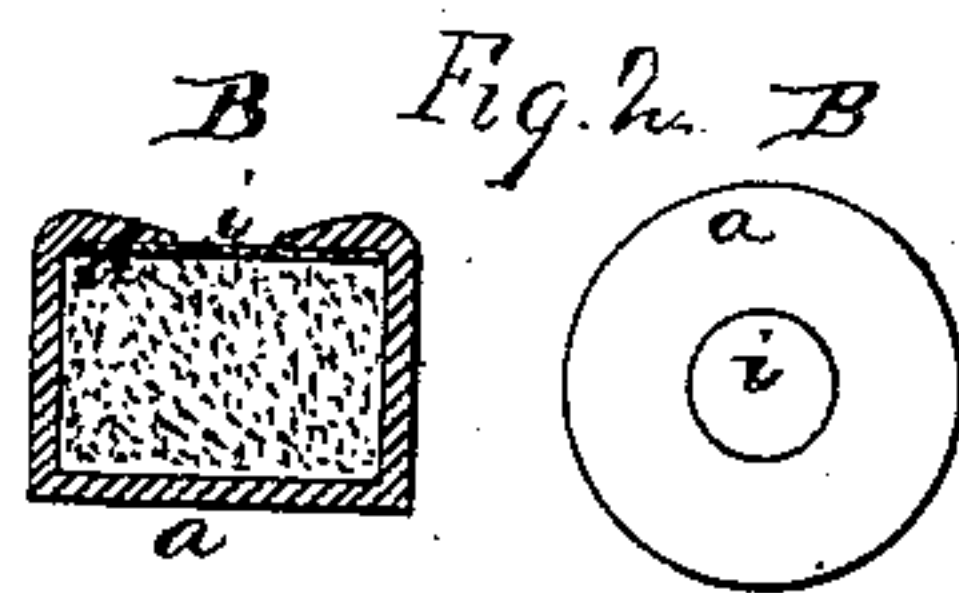
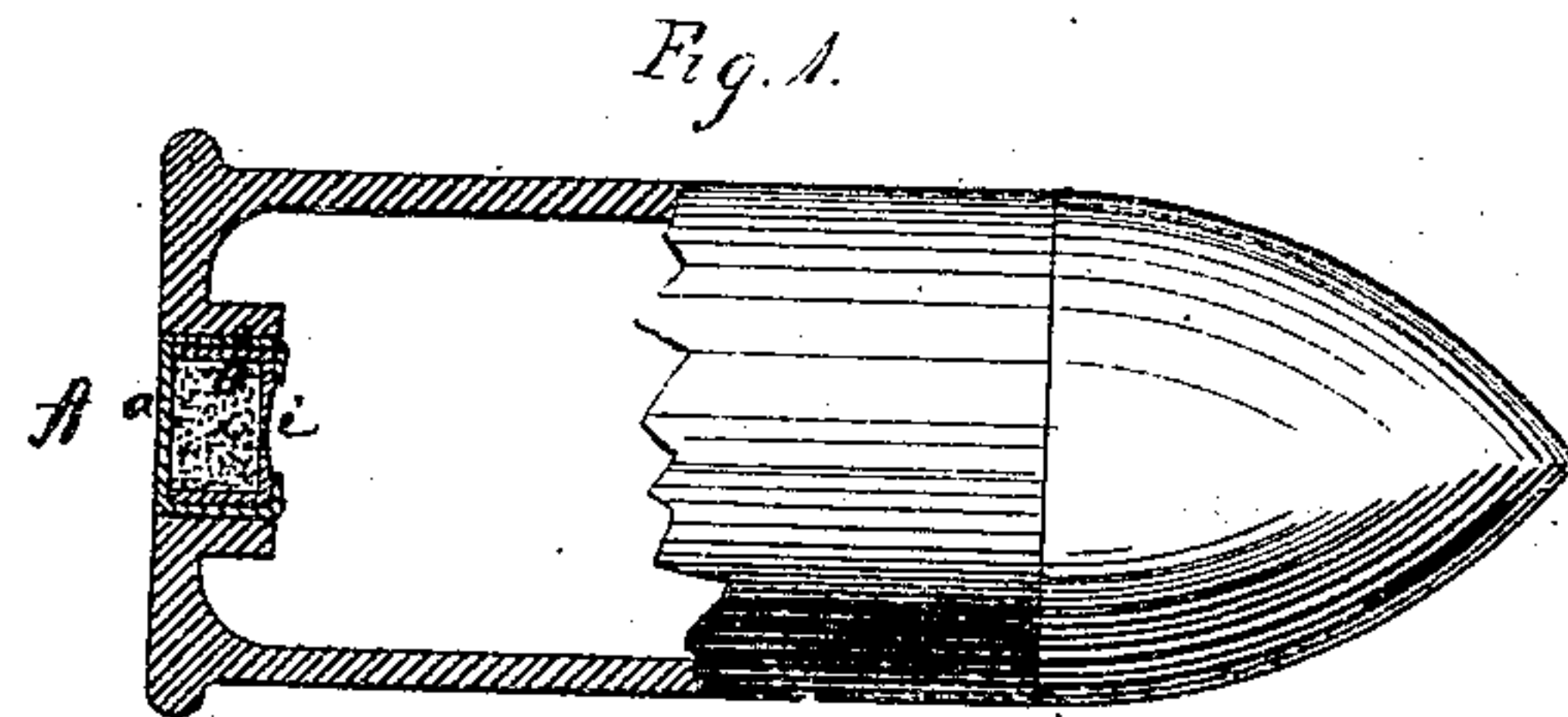


R. WHITE.
Primers for Cartridges.

No. 148,532.

Patented March 10, 1874.



Witnesses:
James E. Hutchinson
C. L. Burr

Inventor,
Rollin White
per Alexander Watson
Attorneys.

UNITED STATES PATENT OFFICE.

ROLLIN WHITE, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN PRIMERS FOR CARTRIDGES.

Specification forming part of Letters Patent No. **148,532**, dated March 10, 1874; application filed February 24, 1872.

To all whom it may concern:

Be it known that I, ROLLIN WHITE, of Lowell, in the county of Middlesex and in the State of Massachusetts, have invented certain new and useful Improvements in Caps and Cartridges; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in a cap or primer for metallic cartridges, formed by the combination of two inverted cups, or a cup and disk secured together, substantially as hereinafter described, when the inner cup or disk is made thin or weak at or near the center.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which the various figures represent various forms of the same invention.

In Fig. 1, I have represented a cap, A, formed of two cups, *a* and *b*, one within the other, and containing the fulminate, the edges of the outer cup *a* being clinched over the bottom of the inner cup *b* to hold the same in place, and the bottom of the cup *b* has a thinner or weaker portion, *i*. This cup is perfectly water-proof, and when inserted in its place in the cartridge-head and struck by the hammer or firing-pin, the fulminate will explode and burst the thin portion *i*, allowing the fire to

pass through and ignite the charge. The outer cup *a* need not necessarily be clinched to hold the interior cup *b*; this latter may be held by the friction, the same as the whole cap is held in the cartridge-head.

In Fig. 2, I have shown a cap, B, formed of one cup, *a*, with an interior thin disk or plate, *d*. The fulminate is placed in the cup *a*, the plate *d* laid on top, and then the edges of the cup clinched over to hold said plate, but leaving a central space of the plate uncovered, which part, in this case, forms the thin or weak portion *i*.

In Fig. 3, I have shown a cap, D, attached to an extra interior plate, *f*, having a weak portion, *i*, and pressed into the cartridge-shell, the plate forming a re-enforce to the head, as shown.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The improved cap or primer herein described, consisting of the combination of two inverted cups, or a cup and disk, secured together substantially as described, when the inner cup or disk is made thin or weak at or near the center, as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of December, 1871.

ROLLIN WHITE.

Witnesses:

SAMUEL W. STICKNEY,
JAMES M. COBURN.