

N. G. WHITMORE.

Improvement in Cartridges.

No. 130,679.

Patented Aug 20, 1872.

Fig. 1.

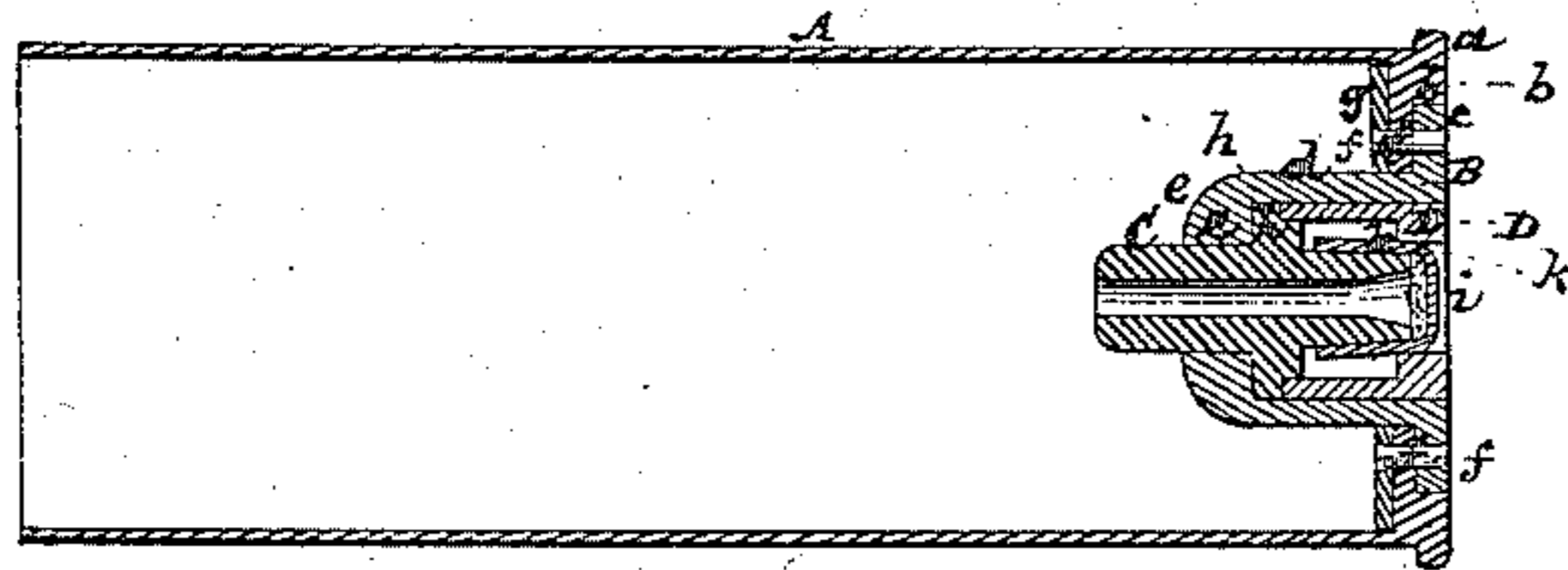


Fig. 2.

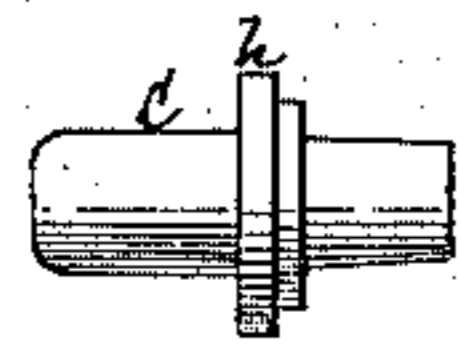


Fig. 3.



Fig. 4.

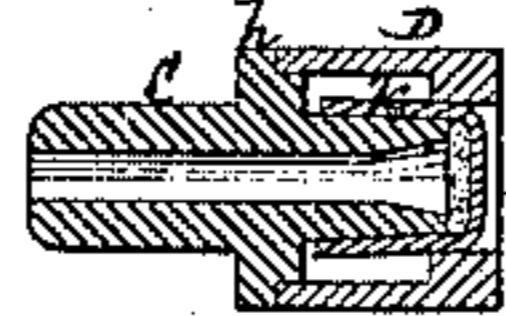


Fig. 5.

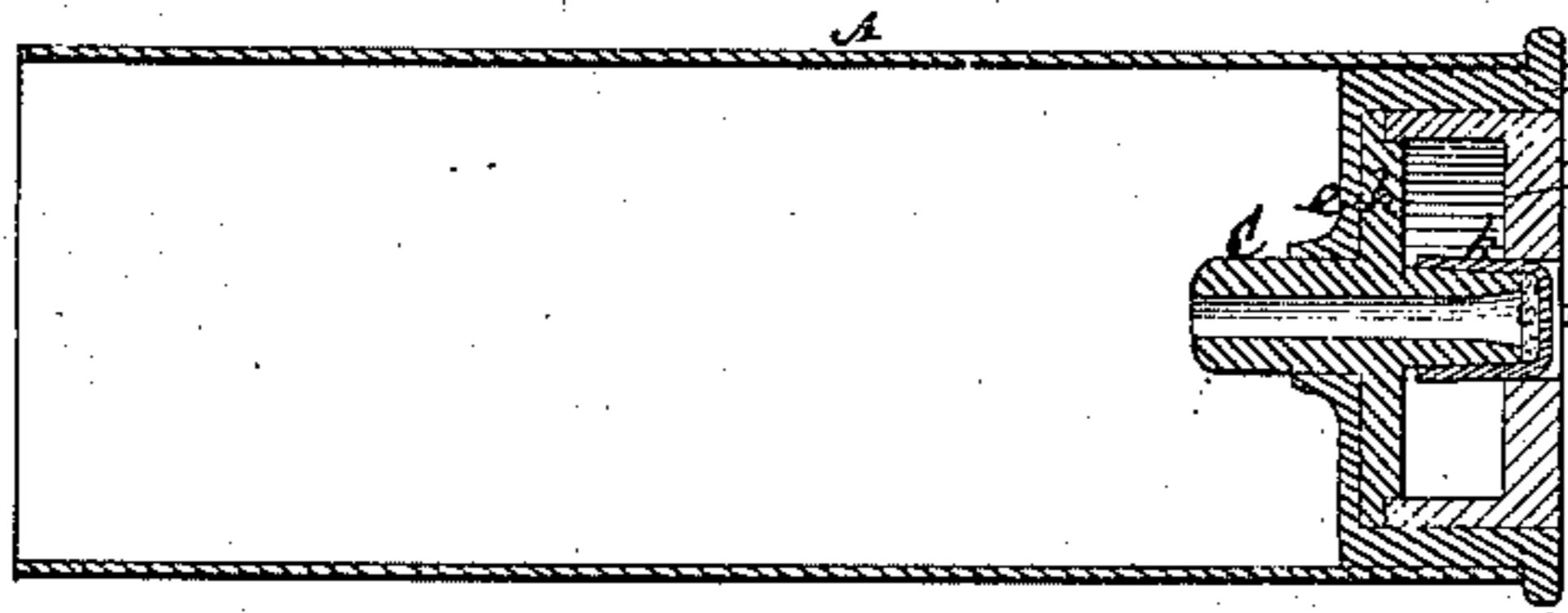


Fig. 6.

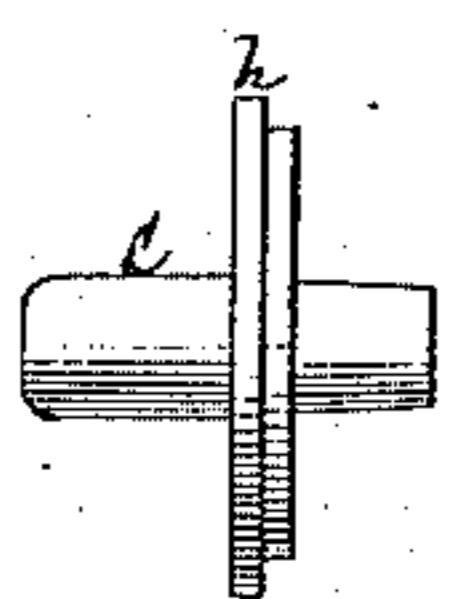
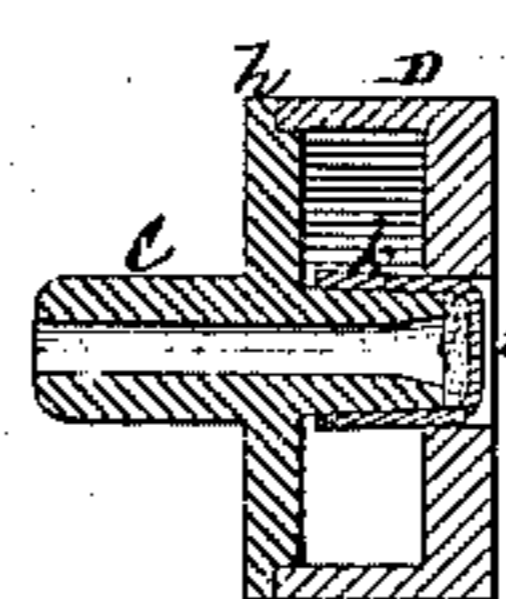


Fig. 7.



Fig. 8.



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UNITED STATES PATENT OFFICE.

NATHANIEL GILBERT WHITMORE, OF MANSFIELD, MASSACHUSETTS, AS-
SIGNOR TO HIMSELF AND ALFRED A. REID, OF PROVIDENCE, R. I.

IMPROVEMENT IN CARTRIDGES.

Specification forming part of Letters Patent No. 130,679, dated August 20, 1872.

Specification describing an Improvement in Cartridges, the invention of NATHANIEL GILBERT WHITMORE, of Mansfield, in the county of Bristol and State of Massachusetts.

This invention relates to cartridge-cases for breech-loading fire-arms, principally designed for the use of shot, whereby provision is made for the repriming of the case for repeated use, by allowing of the removal of an exploded cap, and of the introduction of a fresh cap. The invention consists in a novel construction of the cartridge-case, whereby an ordinary cap, containing the priming, may be used, and the same, when exploded, be made to assist in preventing the escape of gas in rear of the cartridge or its case; also, whereby great facility is afforded for repriming, and a substantial construction of the case is obtained.

In the accompanying drawing, which forms part of this specification, Figure 1 represents a longitudinal section of a center-fire cartridge-case constructed in accordance with my invention; Fig. 2, a longitudinal view of the cap-holder detached; Fig. 3, a like view of a gas-check used in combination with the cap-holder; and Fig. 4, a longitudinal section of said parts or pieces in their relation with each other and with the cap in its place previous to explosion. Fig. 5 is a longitudinal section of a modified construction of the cartridge-case; and Figs. 6, 7, and 8, views similar to Figs. 2, 3, and 4 of parts detached and in combination.

Similar letters of reference indicate corresponding parts throughout the several figures of the drawing.

Referring, in the first instance, to Figs. 1, 2, 3, and 4 of the drawing, A represents the tube or body of the case, which may be made of metal or paper, or both combined, or of any suitable materials; but preferably of metal, and the same with accompanying parts will here be described accordingly. Said tube A is spun or otherwise made to comprise a flanged base end, *a*, with a cylindrical opening through its center, and with an annular recess, *b*, in its rear around said hole or opening. B is a battery-cup, formed with a flange, *c*, at its back, which fits within the annular recess, *b*, and

lies flush with or does not project beyond the back of the case. Said battery-cup B also forms a retainer for the cap-holder C, and is made with a hollow cylindrical body, *d*, which fits closely within or through the hole in the center of the base end *a*, and projects some distance within the tube or body A of the case; also is constructed with an inner end, *e*, through the center of which there is a hole of reduced diameter to that of the cavity in the body *d*. This combined battery-cup and cap-holder retainer B is permanently secured to form part of the case, by soldering or rivets *f f* passing through the flange *c*, the base-end *a*, and a ring or washer, *g*, introduced through the front end of the tube A, or said piece B may be both soldered and riveted to its place, or be otherwise suitably and permanently secured. The cap-holder C is formed of a tube of a length and size to project snugly through the hole in the end *e* of the battery-cup and backward within the body *d*, but of considerably less diameter than the interior of said body, and stopping short of the back of the case, also formed with a flange, *h*, which fits snugly within the body *d*, and rests against the end *e* and receives, closely over a reduced portion of it, a gas-check, D. This gas-check is of a size to snugly enter the cavity in the body *d*, and to extend to the rear of the case, but not so as to project beyond it, the same being of a tubular construction with a center-fire opening, *i*, in its rear, of a size to closely fit over the head of the cap *k*, while the forward portion of the hole through it is of larger diameter.

Figs. 5, 6, 7, and 8 show substantially a similar construction, but the battery-cup B is flanged and constructed to dispense with a base-end, *a*, or rather to constitute such end, and has an enlarged body so as to closely fit within the tube A, to which it is soldered or permanently secured. The flange *h* of the cap-holder C and the gas-check D are also of larger diameters to correspond.

When the cartridge is fired the explosion of the cap *k* causes the sides of the latter to be distended or forced outward within the gas-check D, and thereby to more perfectly close said check at its center-fire opening *i*, so that gas is prevented from escaping in rear of the case.

To prime the cartridge-case, the cap *k* is fitted over the back end of the holder C, and the gas-check D fitted to the latter, after which said devices are shoved home to their places in the case and driven close, as hereinafter described, in order that the gas-check may lie flush with the back of the case, and so that the cap *k* does not project outside of the same, to provide for entry and removal of the cartridge or its case through the breech of the gun.

What is here claimed, and desired to be secured by Letters Patent, is—

The removable gas-check D having a center-fire opening, *i*, fitting closely around the cap *k*, and of smaller diameter than the interior of the body of said check, in combination with the cap-holder C and battery-cup B, substantially as shown and described.

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