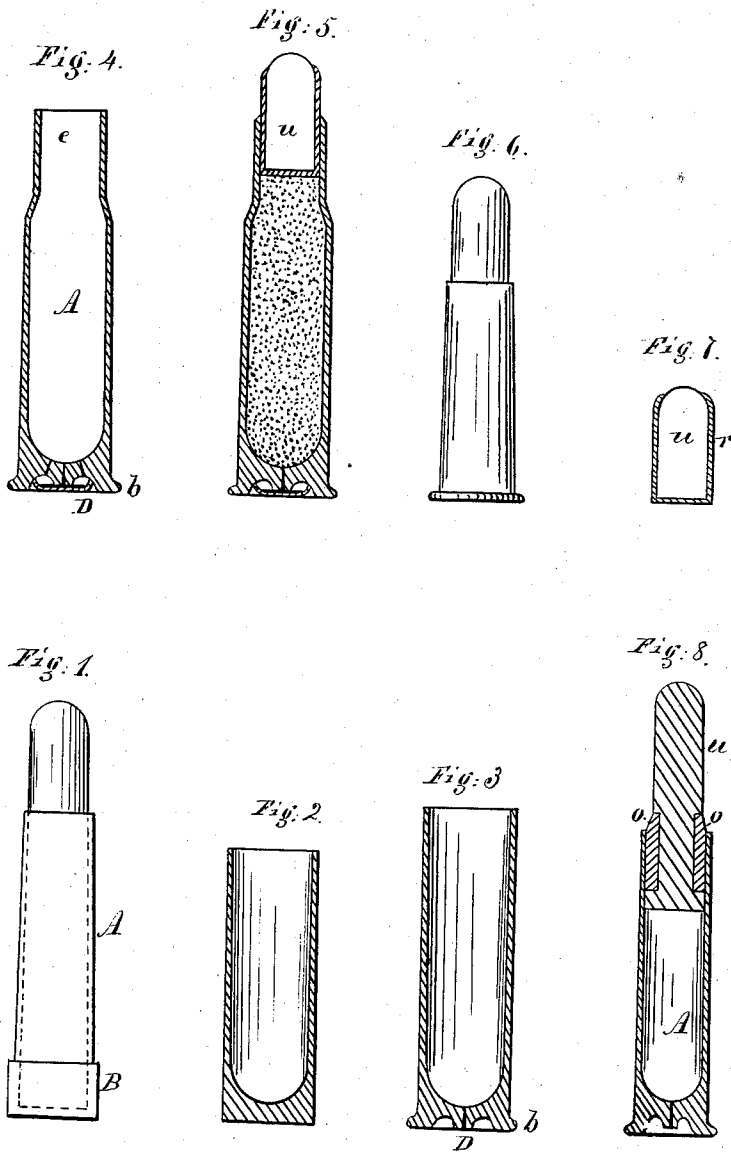


S. W. WOOD.

Improvement in Cartridge Cases.

No. 132,227.

Patented Oct. 15, 1872.



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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN CARTRIDGE-CASES.

Specification forming part of Letters Patent No. 132,227, dated October 15, 1872.

*To all whom it may concern:*

Be it known that I, STEPHEN W. WOOD, of Cornwall, county of Orange and State of New York, have invented a new and Improved Case for a Cartridge; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a side elevation of one form of my improved case for a cartridge, the base or closed end forming the head thereof, re-enforced as represented; Fig. 2 represents a central longitudinal section of a modified form adopted in the manufacture thereof; Fig. 3 is also a section thereof similar to Fig. 2, having been drawn or elongated to impart thereto elasticity or a spring temper, and a head or flange formed thereon; Fig. 4 is likewise a central longitudinal section of the same, having been drawn or reduced and its front or open end "necked" to receive a ball smaller than the main body of the case, and an anvil formed thereon to receive the percussion-cap, and having also a flange, as shown; Fig. 5 is a section corresponding with that of Fig. 4, showing a patched ball in position, and the cartridge otherwise completed and ready for use; Fig. 6 represents a metallic case for a cartridge, cast of ductile metal and tapered; Fig. 7 is a patched ball detached; and Fig. 8 represents a metallic case for a cartridge, the body of which being straight or of a regular taper, as in Fig. 6, and provided with a ball smaller than the diameter of the front or open end of the case, and the space around the ball and between it and the inner periphery being filled with a thick patch or its equivalent, by which means a small ball may be used in a case of greater diameter.

Like letters indicate corresponding parts in all of the figures.

My invention relates to casting a case for a cartridge of ductile metal, and drawing the same by punch and die or in any other suitable manner to elongate and to impart elasticity thereto.

A in the accompanying drawing represents a case for a cartridge cast of ductile metal, and re-enforced by casting the base thicker than the walls or body of the case, as represented in dotted lines, Fig. 1. In this instance the re-enforce is mainly on the exterior of the case, as at B. The re-enforce B, instead of being cast, may be formed thereon by upsetting the

metal in the usual manner. In Fig. 2 the case is shown without the projecting re-enforce B, so that it may be drawn or elongated and tapered, if desired, to fit the chamber of the gun, and an elastic property imparted thereto by being drawn in any suitable manner, after which the flange B may be formed thereon. Fig. 3 represents the case cast of ductile metal after having been drawn to shape and to produce the elastic property, and having an anvil, *d*, formed on the exterior of the center of its base, and a narrow flange, *b*, of the usual width, by which to withdraw the empty case from the chamber of the gun after the discharge. In Fig. 4 the cast case A, of ductile metal, is represented as having been drawn to produce the required elastic property, an anvil, *d*, and flange *b* formed upon the base thereof, and being smaller at the front or open end *e* to receive and hold a ball smaller than the main body of the case A. Fig. 5 is a reproduction of Fig. 4, provided with patched ball *u*, powder, and percussion-cap. Fig. 6 represents a case for a cartridge cast of ductile metal, and drawn, headed, and tapered by any of the known methods. In Fig. 7 the ball *u* is detached and provided with a patch, *r*, of any suitable material.

To prevent stripping the thick patch *o* from the ball when the discharge takes place, a wide groove may be formed in the periphery of the ball, near its base, to receive and hold the patch in place, or the patch may extend over the front end of the ball, as in Fig. 7.

The patch *o* may be made of rubber, fibrous material, or any substance suitable for the purpose.

Having thus fully described my improved case for a cartridge, what I claim therein as new, and desire to secure by Letters Patent, is—

1. A case for a cartridge, with or without an anvil, cast of ductile metal, and having imparted thereto a fibrous and elastic property, substantially as herein set forth.

2. A case for a cartridge, cast of ductile metal, whose open or front end is smaller than the main body thereof, when said case has a fibrous and elastic property imparted thereto, substantially as and for the purpose herein set forth.

STEPHEN W. WOOD.

Witnesses:

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