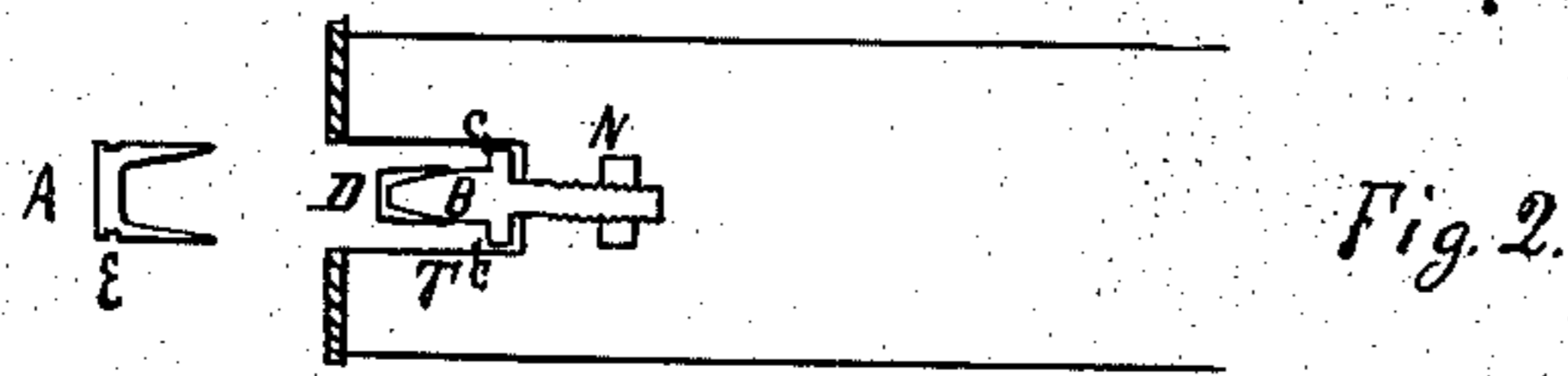
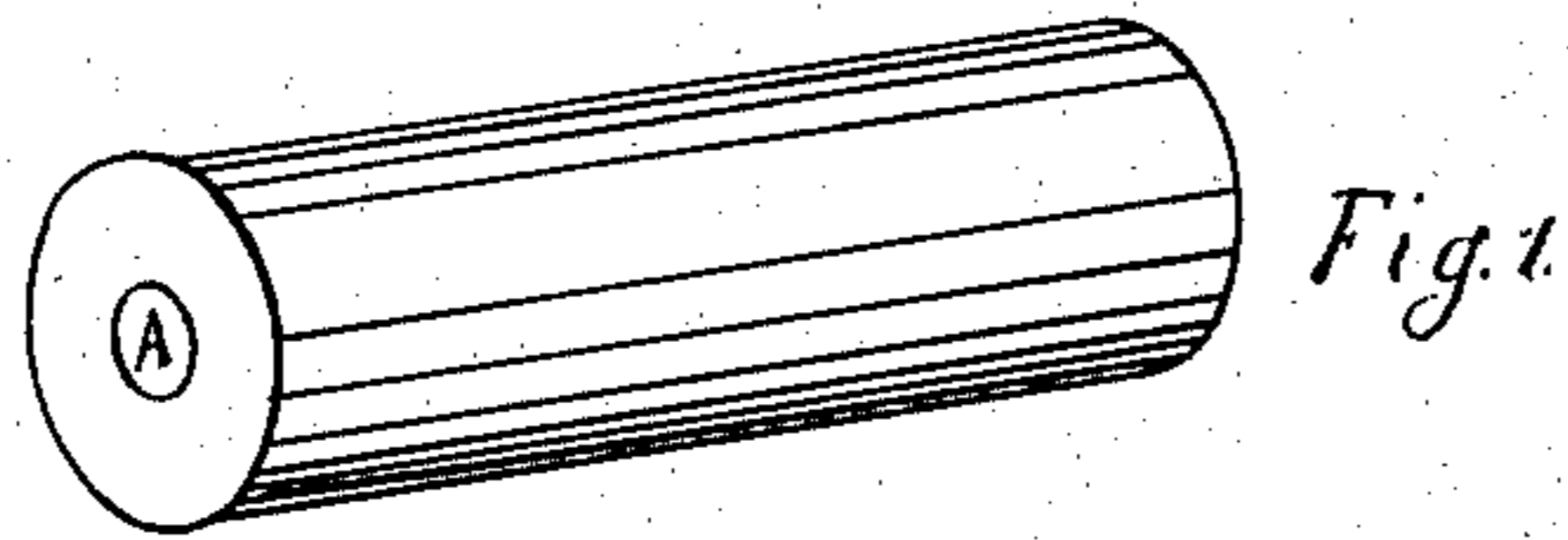


GEORGE R. PIERCE.

Improvement in Metallic Cartridges.

No. 120,323.

Patented Oct. 24, 1871.



Witnesses.
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GEORGE R. PIERCE, OF GRAND RAPIDS, MICHIGAN.

IMPROVEMENT IN METALLIC CARTRIDGES.

Specification forming part of Letters Patent No. 120,323, dated October 24, 1871.

To all whom it may concern:

Be it known that I, GEORGE R. PIERCE, of the city of Grand Rapids, county of Kent and State of Michigan, have invented certain new and useful Improvements in Cartridges for Breech-Loading Fire-Arms; and that the following is a full, clear, and sufficient description, reference being had to the accompanying drawing, and the letters of reference marked thereon, and the same are made a part of this specification.

In the drawing, Figure 1 represents the shell of a breech-loading fire-arm to which my invention is attached. Fig. 2 is a sectional view of the shell cup through the center longitudinally, and also a sectional view of the cup or striker A.

B in Fig. 2 shows the movable and adjustable nipple. The nipple is provided with a shoulder to prevent it from sliding too far into the shell, and also with a screw-thread and nut, N, by means of which it may be adjusted. The shoulder of the nipple B strikes against a shoulder of the shell, as shown in Fig. 2, and the nipple moves freely in the shell the distance between the shoulder of the nipple and the nut N. The cup A is made cup-shaped, as shown, and of sufficient size to fit closely into the opening in the butt end of the shell, and appears when applied to the shell as shown in Fig. 1. The cup A is provided with a groove of suitable size, as shown in Fig. 2 by E. In use, this groove may be filled with tallow, or any other suitable substance, thereby rendering the cartridge waterproof. The cup A, when pressed into the shell, rests on the cap D, which is placed on the nipple B, and the hammer of the gun, striking the cup or striker, explodes the cap. This cup or striker

may be used with an anvil or nipple of any suitable construction. It thus prevents the escape of powder and smoke except through the muzzle. The inner shell T or tube sustaining the nipple may be perforated with one or more small holes, as shown in Fig. 2 by *c c*, by and through which the fire communicates with the powder.

In using my invention the shell may be loaded in the ordinary way with powder and wads, with either balls or shot. The cap is placed upon the nipple, and the cup A placed over the nipple and cap, sliding into the shell, as already described. The shell is then loaded ready for use.

I claim for my invention the advantage over any and all other cartridges, in this: It is cheaper, simpler, less liable to get out of repair, and can be used with the ordinary ammunition most generally in use, and can be applied to all breech-loading fire-arms using what is called the "center-fire."

Instead of using the nut N, as shown, a washer may be riveted on in its place.

Having thus described my invention, what I claim to have invented, and desire to secure by Letters Patent, is—

1. The cup or striker A, when combined with a cartridge-shell, to operate on an anvil or nipple, and a cap carried by the same, substantially in the manner shown and described.

2. The combination and arrangement of the cup or striker A, movable and adjustable nipple B, and shell, substantially as described.

GEO. R. PIERCE.

Witnesses:

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