

R. J. GATLING.

Priming Metallic Cartridges.

No. 78,953.

Patented June 16, 1868.

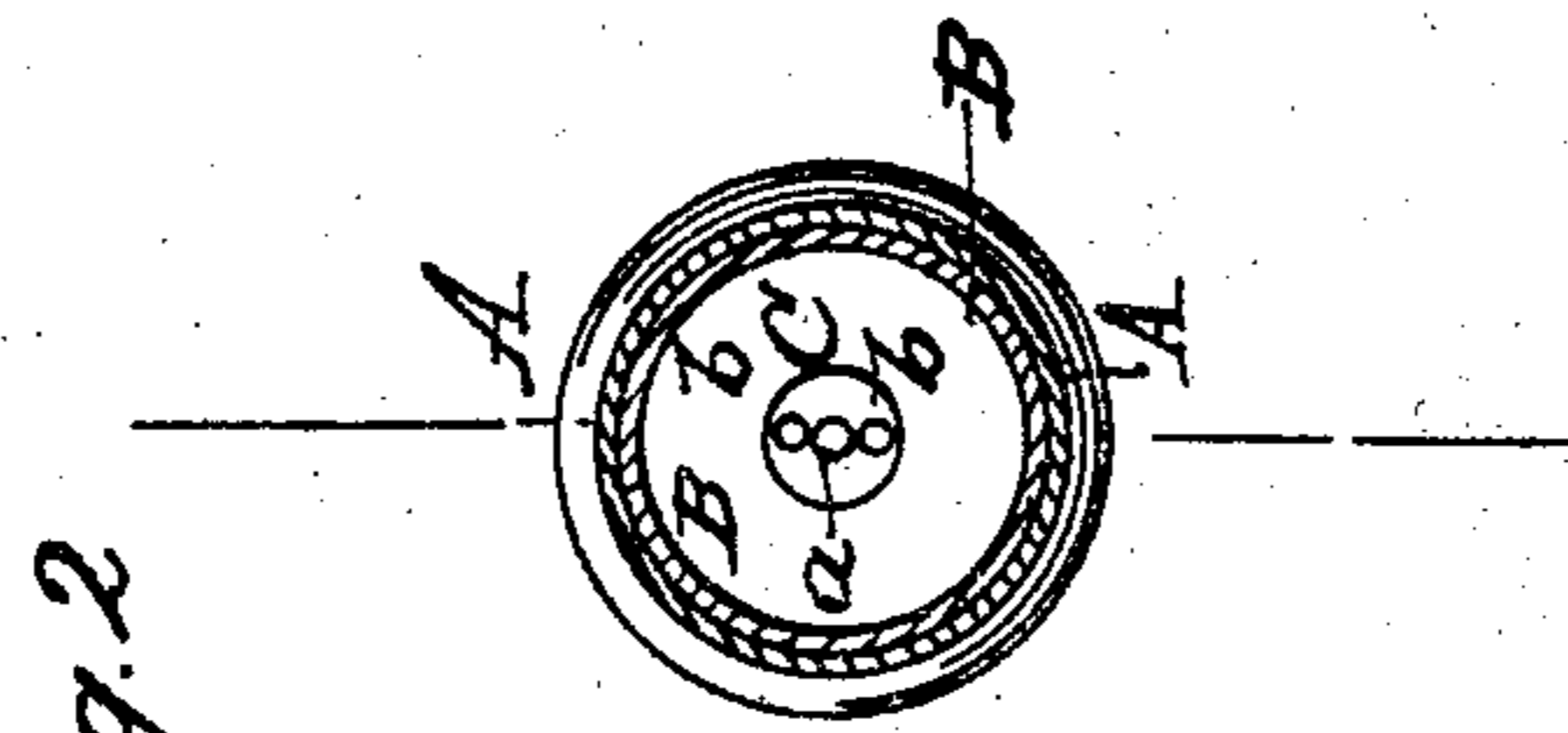


Fig. 2

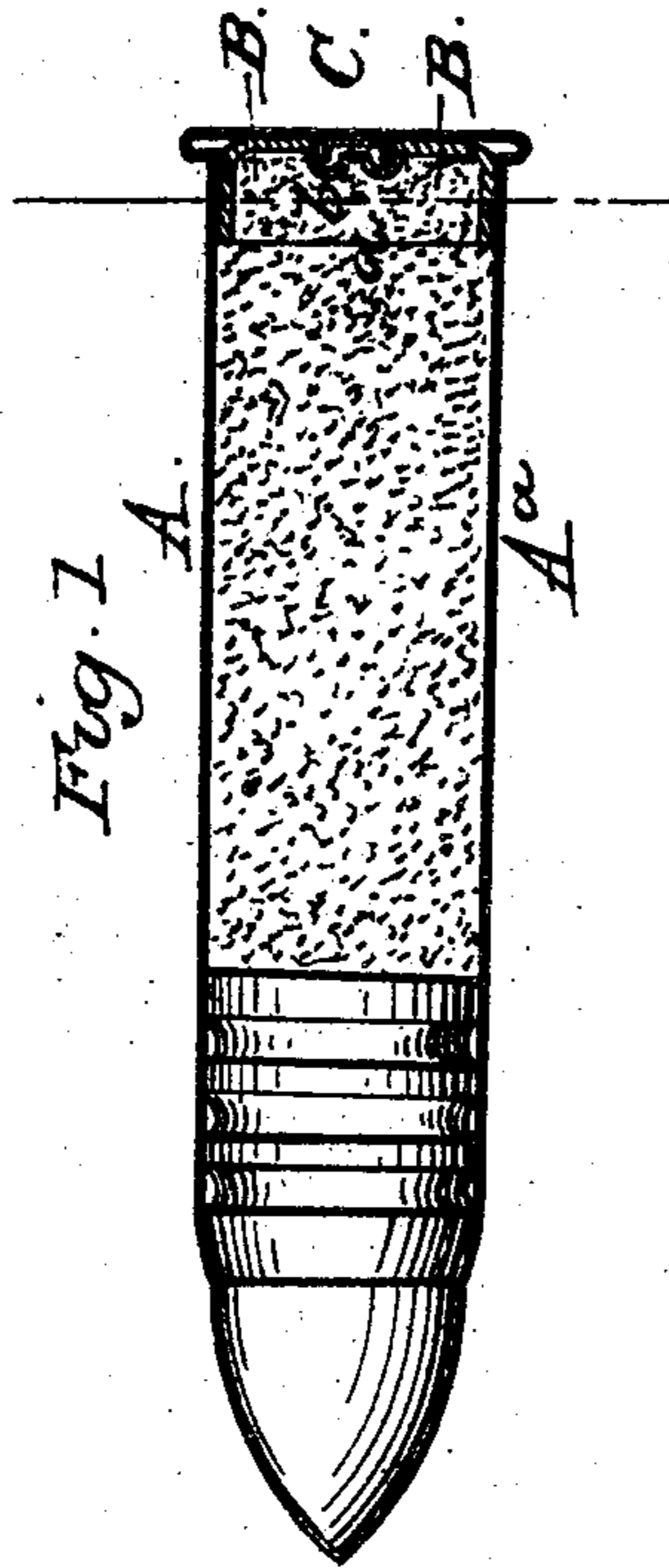


Fig. 1

Witnesses.  
Thos. Inoué  
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# UNITED STATES PATENT OFFICE.

RICHARD J. GATLING, OF INDIANAPOLIS, INDIANA.

## IMPROVEMENT IN PRIMING METALLIC CARTRIDGES.

*Specification forming part of Letters Patent No. 78,953, dated June 16, 1868.*

*To all whom it may concern:*

Be it known that I, RICHARD J. GATLING, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Cartridges; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a longitudinal sectional view of my improved cartridge. Fig. 2 is a transverse sectional view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to an improvement in metallic center-fire cartridges; and it consists in placing the priming or fulminate within a small metallic cup fitting within a recess or depression in the head of a cup inserted in the shell of the cartridge. The edge of the priming or fulminate cup, by fitting within this recess, effectually prevents the escape of gas through the back of the cartridge, between the shell and the larger cup.

A represents the shell or case of a metallic cartridge. B is the cup inserted in the back part of the shell. C is the priming-cup, fitted into the center of the cup B.

The cup B acts as a gas-check when the cartridge is exploded, and is strong enough to prevent the bursting of the head of the cartridge by the force of the charge. This is of great importance, as the same shell can now be used to hold a greater charge of powder than could heretofore be held in a metallic cartridge.

The use of the cup B gives equal pressure and elasticity to the head of the cartridge, and as the cup receives the strain of the discharge, any expansion of the head of the cartridge is prevented. Cartridges made on this improved plan will keep and remain good for an indefinite period, as the priming-cup is not exposed to the influence of the atmosphere.

The cup B is secured in position by being fitted snugly in the main shell or case A, and

by then tapering the said shell in the ordinary manner, whereby the cup B will be firmly secured.

If desired, the cup B may be also secured to the shell in any suitable manner, as by soldering, riveting, or other process.

The priming-cup is placed in the cup B, with its edges snugly fitting the sides of the recess. The cup B has in its center a projecting teat, *a*, extending almost to the rear of the cup inclosed by the priming-cup. When the head of the cartridge is struck by the needle, the head of the shell and of the cup C are bent in until the outer part of the priming-cup strikes the teat *a*, thereby exploding the fulminate, which is forced through holes *b b* in the cup B into the powder in the shell, thereby exploding the same.

The bent edges of the priming-cup, when the charge is exploded, form an effectual gas-check, and prevent the gas from passing between the cup B and the end of the cartridge-case.

I do not claim inserting the priming-cup C in the outer shell A, as that has been done before; nor do I claim anything in the shape or construction of the priming-cup; nor do I claim arranging the cup B for holding loose fulminate; nor do I claim placing the fulminate in a recess in the end of the inner shell or block; but

I do claim and desire to secure by Letters Patent—

The struck up metallic cup B, fitted within the shell A, without contact with the flanges of the latter, and recessed to form the anvil *a*, and to receive the cup C, fitting in close contact with the sides of said recess, for the purpose of preventing the escape of gas between the shell A and cup B, as herein shown and described.

The above specification of my invention signed by me this 7th day of August, 1867.

R. J. GATLING.

Witnesses:

A. V. BRIESEN,  
S. C. JONES.