

I. M. MILBANK.

Improvement in Cartridges for Fire-arms.

No. 123,351.

Patented Feb. 6, 1872.

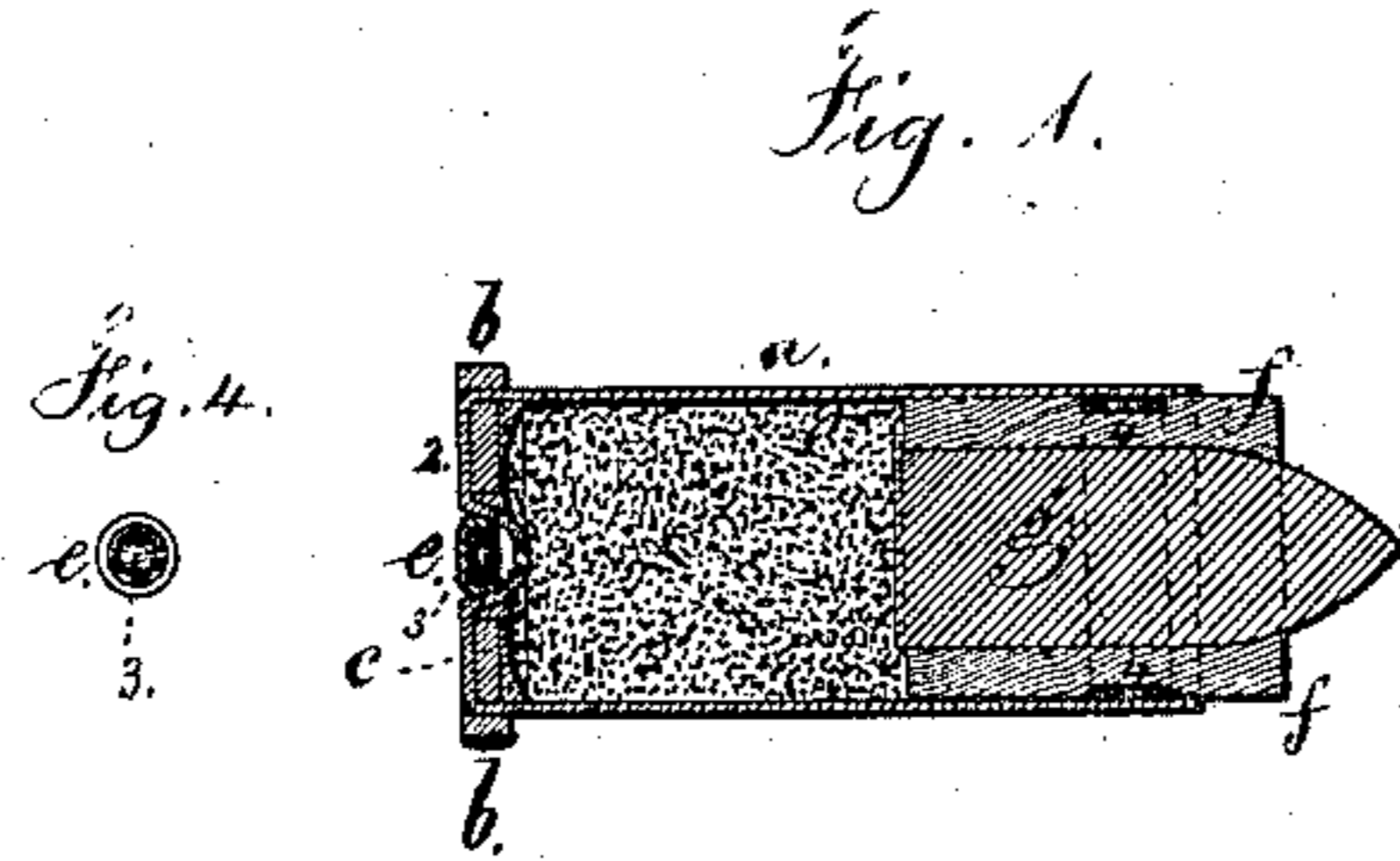
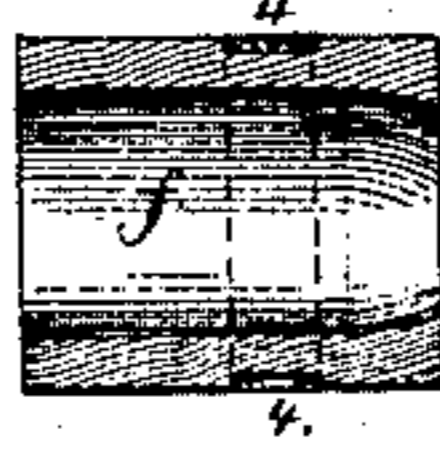


Fig. 2.



Fig. 3.



Witnesses

*Chas. H. Smith*  
*Geo. D. Waiver*

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*Lemuel W. Perrell* atty

# UNITED STATES PATENT OFFICE.

ISAAC M. MILBANK, OF GREENFIELD HILL, CONNECTICUT.

## IMPROVEMENT IN METALLIC CARTRIDGES.

Specification-forming part of Letters Patent No. 123,351, dated February 6, 1872; antedated January 22, 1872.

*To all whom it may concern:*

Be it known that I, ISAAC M. MILBANK, of Greenfield Hill, in the county of Fairfield and State of Connecticut, have invented and made an Improvement in Cartridges for Fire-Arms; and the following is declared to be a correct description thereof.

In my improved cartridge I dispense with the usual folded sheet-metal rim forming the flange around the base of the case, and in place thereof make use of a metallic ring soldered to the said metal case. Thereby the ring strengthens the case at the angle between the flat end and the cylindrical sides, and risk of the case breaking at this point is lessened. Furthermore, I make use of an interior base or disk, also soldered to place, in combination with the said exterior ring, so as to strengthen the entire rear end of the cartridge-case, when the same is made from light or weak sheet metal. The ball that I employ is inclosed in a wooden case, the said case at its forward end fitting the tapering forward end of the ball, so that, as the ball is started, it acts to spread the front end of the wooden case, to cause the same to fit the inside of the barrel. The wooden cylinder is to be saturated with lubricating material, such as tallow and graphite, and a groove around this case also contains lubricating material, and is introduced into the sheet-metal cartridge-case.

In the drawing, Figure 1 is a section of the cartridge. Fig. 2 is a section of the ring separately; and Fig. 3 is a detached section of the wooden case for the ball.

The sheet-metal cartridge-case *a* is made with the flat rear end 2, and around the same is the ring *b*, soldered or brazed firmly to the case to form a flange to the same that will take the place of the ordinary flange made of the metal of the case. The interior base *c* is to be introduced and soldered to its place substantially the same as in my patent of February 19, 1867, No. 62,283. This is especially useful where the cartridge-case is of thin sheet metal. The sheet metal of the end of the case is recessed for receiving the primer *e*, shown separately in Fig. 4, and this primer is made as a shallow fulminating-cap, and within this is an anvil made by a small split ring, 3, and this ring causes the fulminate to explode when the

cap is struck by the hammer. The split ring is easily made out of sheet metal or wire, and can be introduced and will remain in the cap in consequence of the expansion or spring of the ring. The wooden case *f* that receives the metal ball *g* is made with a cavity therein for receiving said ball, and the forward end of this cavity is made to fit the tapering end of the ball, so that the ball supports the wooden case, especially at the forward end, against the compressing action of the barrel as the ball and its case are driven into the rifle-grooves; thereby the cylinder fits the barrel tightly, guides the ball accurately, and cleans said barrel. The wooden cylinder is saturated with lubricating material—such as tallow and graphite, preferably—by immersing such cylinders in melted lubricant; and a groove, 4, around the same contains suitable material to aid in lubricating the barrel and also in making the cylindrical case *f* tight with the metal case *a*, as said groove should be pressed below the edge of said case *a*, as seen in Fig. 1. The wooden case *a* is to be scored with two or more incisions, to facilitate the separation of the case from the bullet after they leave the barrel.

I claim as my invention—

1. The cartridge-case *a* with its closed base 2 made of one piece of sheet metal, in combination with the metallic ring *b* soldered around said case at the angle between the sides and end, substantially as and for the purposes set forth.

2. The cartridge-case *a* with its closed base 2 made of one piece of sheet-metal, in combination with the metallic ring *b* and the disk *c*, substantially as and for the purposes set forth.

3. The split ring introduced in the primer to form an anvil, as and for the purposes set forth.

4. A wooden case containing the ball and inserted into the sheet-metal cartridge-case, as set forth, so that the groove in said case containing the lubricating material shall pass below the end of said sheet-metal case, as set forth.

Signed by me this 27th day of April, 1871.  
I. M. MILBANK.

Witnesses:

GEO. D. WALKER,  
GEO. T. PINCKNEY.