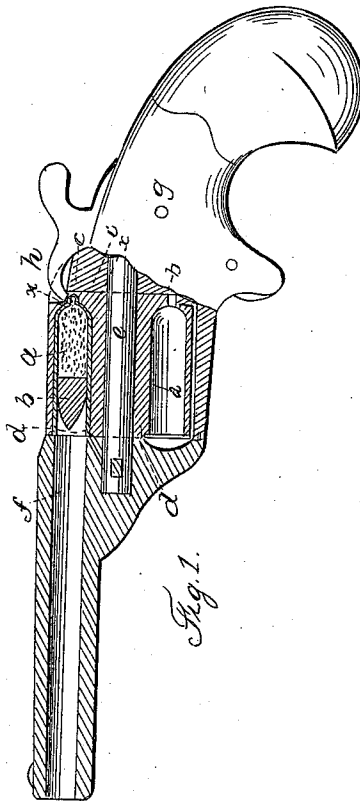
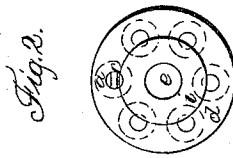


D. WILLIAMSON.

Cartridge.

No. 41,183.

Patented Jan. 5, 1864.



*Witnesses*

*A. Berger*  
*A. A. Pugh*

*D. Williamson*

# UNITED STATES PATENT OFFICE.

DAVID WILLIAMSON, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE  
MOORE'S PATENT FIRE ARMS COMPANY, OF SAME PLACE.

## IMPROVEMENT IN CARTRIDGES FOR REVOLVING FIRE-ARMS.

*Specification forming part of Letters Patent No. 41,183, dated January 5, 1864.*

*To all whom it may concern:*

Be it known that I, DAVID WILLIAMSON, of Brooklyn, in the county of Kings and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Cartridges for Fire-Arms; and I do hereby declare the following to be a full, clear, and exact description of my said invention, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1 is a section of my said cartridge as in the fire-arm ready for use. Fig. 2 is an end view of said cartridge as in the chamber of a revolving cylinder, and Fig. 3 is the metallic cartridge-case separately.

Similar marks of reference denote the same parts.

Cartridges for fire-arms have heretofore been made with a nipple projecting from the center of the metallic case at the rear thereof, as may be seen in the patent granted to Daniel Moore April 28, 1863, and in other cases. In all such cartridges this small nipple containing the fulminating material has been cylindrical, and, therefore, was very strong and required a heavy blow from the hammer in order to break down the arch of such cylinder and explode the detonating material; hence this character of cartridge would not always fire by the first blow of the hammer.

The nature of my said invention consists in an oblong or flattened nipple projecting from the rear end of the metallic cartridge-case, which in the fire-arm is sustained by a flat or nearly flat surface on one side while struck on the opposite side by the hammer.

In this cartridge the metal is easily compressed and cut into by the hammer to produce the explosion, in consequence of said hammer acting upon the flattened side of the nipple; and in combination therewith I employ a metallic cartridge-case of a dome or hemispherical shape at the rear end, whereby the case is less liable to bind in the cylinder, because where the rear end of the case is flat or nearly flat, the explosion often causes the metallic case to project at such rear portion and bind against the stationary abutment behind the cylinder, while in the present instance the dome-shaped case allows the rear end of the chamber to be of a corresponding shape, and nothing but the opening for the

fulminating-teat is necessary, and no portion of the metallic case can bind to prevent the rotation in the cylinder, and the length of the cylinder can remain the same as with the flattened cartridge.

In the drawing, *a* is the metallic cartridge-case, with the ball *b*. *c* is the hollow nipple or teat projecting from the rear of said metallic case. This nipple is to be pressed up of a flattened or oblong shape, or first made as a cylinder and then flattened, in either case assuming the form represented in Fig. 2, and in which nipple the detonating material is to be placed.

The cylinder *d* is represented on the center-pin *e*, between the barrel *f* and stock *g*, and *h* is the hammer, all of which may be of any usual construction; and at the rear of the cylinder *d* is a projecting ring, *i*, upon which the nipple rests, and which forms a nearly flat surface against which the hammer strikes the nipples, exploding the detonating material contained therein with certainty, even when but a slight blow is given by the hammer, because the metal of the case is nearly flat at the part struck.

The metallic case *a* is made with a hemispherical base, as at *x x*, and the chambers receiving said cartridges should be made of a similar form at their rear end. By this means the rear end of the cartridge is inclosed, and the explosion cannot drive the case back and cause it to project from the chamber, and the case is less liable to be split by the explosion than in cases where a flat or nearly flat base is formed.

What I claim, and desire to secure by Letters Patent, is—

1. A flattened or oblong teat or nipple at the rear end of the metallic cartridge-case, to be struck by the hammer while resting upon a flat or nearly flat surface, substantially as and for the purposes specified, and in combination therewith.

2. The hemispherical rear end of the cartridge-case, for the purposes and as specified.

In witness whereof I have hereunto set my signature this 28th day of September, 1863.

D. WILLIAMSON.

Witnesses:

LEMUEL W. SERRELL,  
CHAS. H. SMITH.