

A. B. & R. A. KAY.

SHOT-CARTRIDGE.

No. 172,446.

Patented Jan. 18, 1876

Fig. 1.

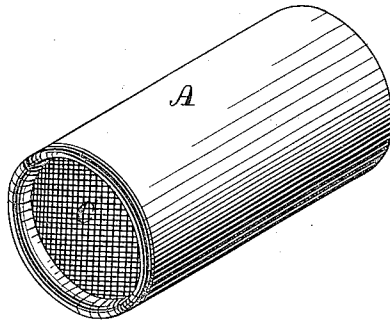


Fig. 2.

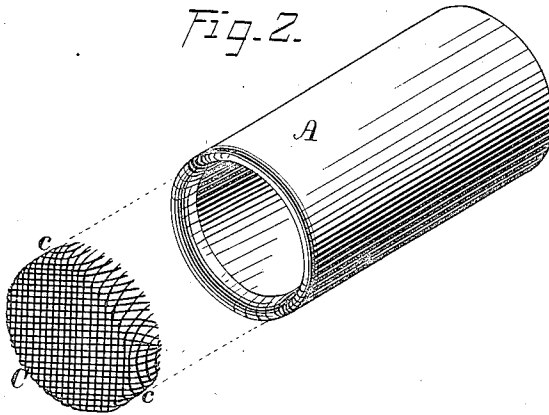
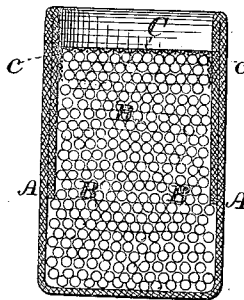


Fig. 3.



WITNESSES=

*Jack Butchinson*  
*John R. Young*

INVENTORS.

*A. B. & R. A. Kay, by*  
*Pinckney & Co. their Attys*

# UNITED STATES PATENT OFFICE

ALLAN B. KAY AND ROBERT A. KAY, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN SHOT-CARTRIDGES.

Specification forming part of Letters Patent No. 172,446, dated January 18, 1876; application filed January 3, 1876.

### *To all whom it may concern:*

Be it known that we, ALLAN B. KAY and ROBERT A. KAY, of Newark, in the county of Essex, and in the State of New Jersey, have invented certain new and useful Improvements in Shot-Cartridges; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of our improved cartridge as arranged for use. Fig. 2 is a like view of the case and wad separated, and Fig. 3 is a central longitudinal section of said cartridge.

Letters of like name and kind refer to like parts in each of the figures.

In the use of shot-cartridges it is requisite that a wad should be placed in front of the shot in order that the latter may be prevented from separating by the resistance of the air. The wad heretofore employed for this purpose has been constructed from pasteboard or other like imperforate material; but, while serving the purpose intended, it has been found that said wad offered such resistance to the passage of the shot through the air as to materially decrease their range.

To obviate this difficulty is the design of our invention, which consists in combining with a shot-cartridge a wad composed of perforated, reticulated, or woven metal, or other suitable material, substantially as and for the purpose hereinafter specified.

In the annexed drawings, A represents a cartridge-casing, composed of any suitable material, permanently closed at one end, and partially filled with shot, B and B. The open

end *a* of the casing A is inclosed by means of a wad, C, which is constructed, preferably, from wire-cloth, and is provided around its edge with a downward-projecting flange, *c*, that embraces the shot, B and B, contiguous to said wad. The wad C being confined in place by any desired means, the cartridge is ready for use, and it is found that said wad passes readily through the air, and offers such slight resistance to the motion of the shot as to cause the latter to have a much longer range than would be possible were the ordinary imperforate wad employed. In addition to the advantage named the wad C causes the shot to scatter less than usual, its flange *c* operating to confine the forward shot, and the latter to prevent those in the rear from becoming separated.

While metal is, preferably, employed for constructing our wad, any other material possessing sufficient strength will answer the same purpose.

Having thus fully set forth the nature and merits of our invention, what we claim as new is—

In combination with a shot-cartridge, a wad composed of perforated, reticulated, or woven metal, substantially as and for the purpose specified.

In testimony that we claim the foregoing we have hereunto set our hands and seals this 31st day of December, 1875.

ALLAN B. KAY. [L. S.]  
ROBERT A. KAY. [L. S.]

Witnesses:

CHAS. K. WESTBROOK,  
A. SIMON.