## G. W. EVANS. Cartridge.

No. 200,995.

Patented March 5, 1878.

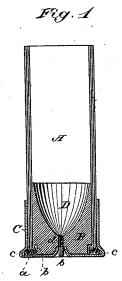
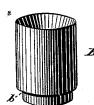
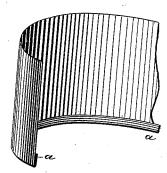


Fig. 3.







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## UNITED STATES PATENT OFFICE.

GEORGE W. EVANS, OF BALTIMORE, MARYLAND.

## IMPROVEMENT IN CARTRIDGES.

Specification forming part of Letters Patent No. 200,995, dated March 5, 1878; application filed September 14, 1877.

To all whom it may concern:

Be it known that I, GEORGE W. EVANS, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements 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 which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a longitudinal section. Fig. 2 is a perspective view of the cylindrical base-block detached, and Fig. 3 represents a section of the paper strip from which the tube or shell is made.

Similar letters of reference indicate corresponding parts in all the former

sponding parts in all the figures.

My invention relates to paper shells of the kind used in breech-loading sporting-guns; and it consists, essentially, in an improved method of securing the shell or tube to the cylindrical and recessed base-block or plug containing the conical powder-chamber, substantially as hereinafter more fully explained.

In the drawings, A is the shell, and B is the plug or base-block. The former is made by rolling a strip of paper or other suitable material, of proper length and width, around the cylindrical plug, the lower edge of the paper being first folded or doubled, as shown at a in Fig. 3, so as to form a bead running the entire length of the strip. In rolling the

tube this bead is inserted into the annular groove b'of the plug B, and the paper wound tight around it, the several strips of paper contributing to the thickness of the annular bead a, which fits into the groove b. The proper thickness of tube having been obtained, the shell is finished by placing the flanged cap C over the end of the plug, so as to clamp the paper and prevent withdrawal of the tube from its base-block. Plug B has a conical or tapering powder-chamber, (denoted by D;) and d is the channel or perforation through which the powder is ignited.

In forcing cap C over the end of the shell a portion of the outer edge of the paper bead or rim a will be forced into the flange c of the cap, as shown in Fig. 1, thereby increasing the tenacity of the tube A and its base-block or plug B.

Having thus described my invention, I claim and desire to secure by Letters Patent of the

United States—

The combination of the tube A, having bead a, base-block B, having annular groove or recess b, and cap C, substantially as and for the purpose herein shown and described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in

presence of two witnesses.

GEORGE WM. EVANS.

Witnesses:

LOUIS BAGGER, WM. BAGGER.