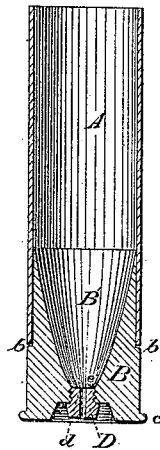


N. B. WELSH & G. W. EVANS.

CARTRIDGES.

No. 180,510.

Patented Aug. 1, 1876.



Attest:
Jno. A. Madigan
E. E. Court.

Inventor:
Napoleon B. Welsh, and
George W. Evans,
by Louis Baggett Co.,
Attys.

UNITED STATES PATENT OFFICE.

NAPOLEON B. WELSH AND GEORGE W. EVANS, OF BALTIMORE, MD.

IMPROVEMENT IN CARTRIDGES.

Specification forming part of Letters Patent No. 180,510, dated August 1, 1876; application filed May 24, 1876.

To all whom it may concern:

Be it known that we, NAPOLEON B. WELSH and GEORGE W. EVANS, both of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Cartridges; and we 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.

This invention relates to that class of cartridges that are used for breech-loading guns; and it consists in the construction, and its combination with the tube or shell of a cartridge, of a recessed base-block or plug, having a conical tapering powder-chamber, substantially as hereinafter more fully explained, and pointed out in the claim.

In the drawing, Figure 1 represents a vertical section of a cartridge having our improvement.

We have represented a longitudinal section of a cartridge having our improvement.

A is the tube or body of the cartridge, which is open at both ends, as shown. B is a cylindrical plug, having an interior recess or powder-chamber, B', of the shape of an inverted cone, tapering to a point at *a*. The plug B has an offset or shoulder, *b*, above the rim or flange *c*, this offset being of a depth equal to

the thickness of paper of tube A, which abuts against it, so as to make the exterior of the cartridge from its top to the rim *c* perfectly smooth and cylindrical.

The advantage of this construction is that that part of the cartridge—viz., the bottom part—which, when the cartridge is inserted into the breech, is surrounded by the joint between the breech-block and breech, is perfectly solid and in one piece, whereas in cartridges of this class, where the paper tube extends all the way down to the rim *c*, the paper is apt to become injured and abraded by the friction between it and the breech and breech-block in loading.

Having thus described our improvements, we claim and desire to secure by Letters Patent of the United States—

The combination of an open cartridge shell or tube, A, with the cylindrical base-block or plug B, having internal tapering powder-chamber B', annular shoulder or offset *b*, and bottom rim or flange *c*, substantially as and for the purpose herein shown and specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

NAPOLEON B. WELSH.
GEORGE W. EVANS.

Witnesses:

LOUIS BAGGER,
JNO. W. MADIGAN.