

UNITED STATES PATENT OFFICE.

ROBERTS BARTHOLOW, OF THE UNITED STATES ARMY.

IMPROVED WATER-PROOF CARTRIDGE.

Specification forming part of Letters Patent No. **32,345**, dated May 21, 1861.

To all whom it may concern:

Be it known that I, ROBERTS BARTHOLOW, of the United States Army, have invented a Solid Water-Proof Cartridge, adapted to all descriptions of fire-arms; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying specimens, and to the letters and figures marked thereon.

My invention consists in the combination of the following ingredients, in the proportions and by the mode expressed, into solid cartridges of sizes adapted to various kinds of fire-arms: nitrate of potassa, seventy-five parts; charcoal, twelve parts; sulphur, ten parts; chlorate of potassa, three parts. These to be reduced to an impalpable powder, and mechanically incorporated with the collodion tincture of shellac to a semi-fluid consistency; the mixture is then put into suitable molds and allowed to set or harden. When dry, the cartridges prepared as aforesaid are coated with the collodion tincture of shellac.

The collodion tincture of shellac is prepared as follows: collodion, one pint; gum-shellac, one ounce. Allow this mixture to stand twelve hours, with occasional agitation, and then pour off the clear liquor from the sediment.

The cartridges prepared by the foregoing method are then attached to the ball by "marine glue," or some adhesive substance. Specimen No. 1: Minié ball, caliber .58; No. 2, round ball, with patching, caliber .54; No. 3, Colt's navy-pistol ball, cartridges.

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

The within-described solid water-proof cartridge, made in the manner and for the purpose herein specified.

ROBERTS BARTHOLOW.

Witnesses:

GEO. M. ALEXANDER,
ANDREW J. ALEXANDER.