

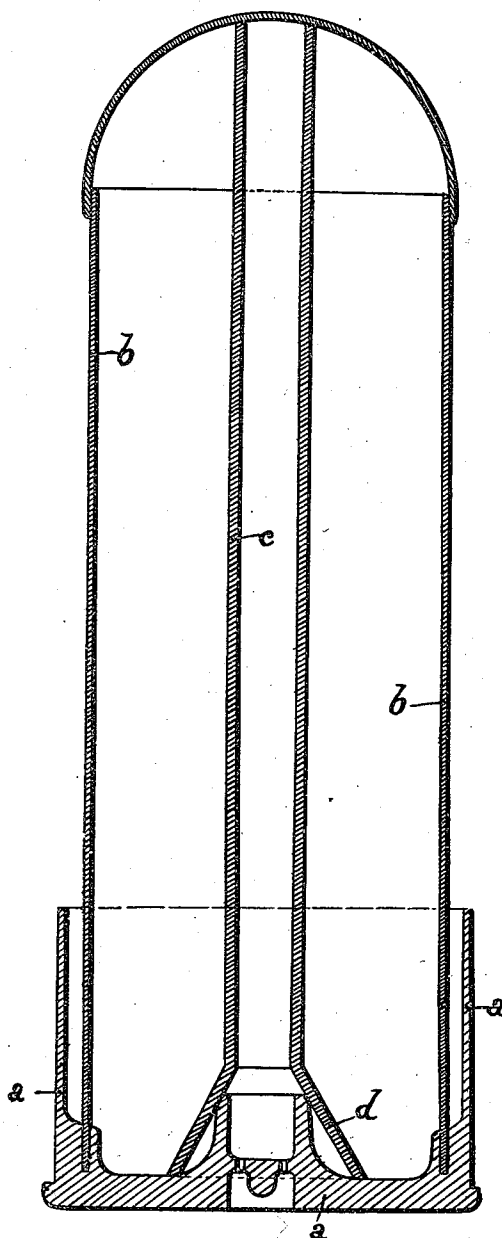
No. 664,116.

Patented Dec. 18, 1900.

A. BARRALLON.
CARTRIDGE.

(Application filed July 19, 1899.)

(No Model.)



Witnesses:

Jean Baptiste Harter
Joseph Moret

Inventor :

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UNITED STATES PATENT OFFICE.

ANTONY BARRALLON, OF ST. ETIENNE, FRANCE.

CARTRIDGE.

SPECIFICATION forming part of Letters Patent No. 664,116, dated December 18, 1900.

Application filed July 19, 1899. Serial No. 724,424. (No model.)

To all whom it may concern:

Be it known that I, ANTONY BARRALLON, a citizen of the French Republic, residing in the city of St. Etienne, department of the Loire, France, have invented a new and useful Cartridge for Firearms of all Calibers and Descriptions, of which the following is a specification.

My invention relates to improvements in cartridges; and its object is to provide a cartridge which, on one hand, insures the indefinite preservation of the powder charge contained therein by keeping it safe from the influence of humidity, and, on the other hand, a complete and quick combustion of the charge, together with its casing, as soon as the shot is fired in order to reduce the accessory work required for firing the gun to its strict minimum.

I attain the object by the cartridge shown in the accompanying drawing, which is a longitudinal section of the same, taken through its axis.

As will be seen from the drawing, the said cartridge consists, essentially, of the following parts:

First, a breech or bottom piece *a*, of metal, embossed and sufficiently thin and elastic as to insure the obturation of the cartridge under the pressure of the powder-gases.

Second, a cylindrical casing *b*, of celluloid, terminated at its front end by a semispherical calotte and destined to contain the powder charge. This casing is of smaller diameter than the metallic breech-piece *a* and is incased with its bottom end in the said breech in such a manner that a free air-space is left all around between it and the breech, destined to furnish the air required for the combustion of the lower part of the casing. It will also be seen that by making the combustible casing *b* of less diameter than the breech-piece *a* the said casing will be of less diameter than the bore of the gun, thus forming an annular air-space between the casing and bore of the gun, so as to insure a complete combustion of said casing. Celluloid being impermeable, the casing *b*, together with the breech *a*, form a hermetically-closed powder-chamber which protects the powder from the influence of humidity.

Third, a tube *c*, also of celluloid, placed in

the center of the cartridge and extending through the whole length of the same. The tube widens at its bottom end, so that it forms there a mouthpiece which covers the percussion-cap or other detonator provided in the breech or bottom piece *a*. The tube *c* is filled with quick-burning powder which when the gun is fired through the medium of the highly inflammable and combustible celluloid tube *c* immediately ignites the powder charge contained in the casing *b* throughout its whole length, so that as the celluloid casing burns away with the charge the cartridge, except its metallic breech, is entirely consumed without leaving the slightest residue in the bore of the gun.

It scarcely need be mentioned that the cartridge heretofore described and shown in the drawing is only a development of the invention, given as an example, which may be varied in form, construction, and dimensions, so as to adapt the cartridge to guns of all descriptions and calibers, and such changes would of course not constitute a departure from the invention.

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

1. A cartridge for firearms, consisting of a metallic breech *a* having a percussion-cap or detonator in its center, an impermeable and combustible casing *b* of smaller diameter than the breech and secured within and to the base of the same, and a highly inflammable and combustible center tube *c* having a flaring end covering the detonator of the breech and extending therefrom to the outer end of the casing, substantially as described.

2. A cartridge, comprising a combustible casing, a breech in which the casing is secured, the breech being of greater diameter than the casing and having its outer end surrounding the inner end of the casing and forming therewith an air-space open at its forward end, and an inflammable and combustible center tube, substantially as described.

3. A cartridge, comprising a combustible casing, a flexible breech-piece of greater diameter than the casing and in which the casing is secured, the outer flexible end of the breech surrounding the inner end of the casing and forming therewith an annular air-space open at its forward end, and a central

inflammable and combustible tube having an outwardly-flaring lower end, substantially as described.

4. A cartridge having an elastic metallic base, a celluloid casing attached to the base, and a celluloid tube extending from the base through the longitudinal center of the cartridge.

5. A cartridge, comprising a breech, a combustible casing secured to the breech and adapted to contain the charge, and a combustible tube arranged in the center of the casing and extending from the breech throughout the length of the casing with its inner end in engagement with the end of the casing, said tube being adapted to contain a quick-

burning powder, as and for the purpose set forth.

6. A cartridge, comprising a breech-piece, and a combustible casing of less diameter than the breech and secured therein, whereby an annular air-space open at its forward end will be formed between the casing and breech-piece and the casing and bore of the gun to insure a complete combustion of said casing, as set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

ANTONY BARRALLON.

Witnesses:

JEAN BAPTISTE MARTEL,
JOSEPH MOSELEY.