

H. W. MASON.
Cartridge.

No. 219,491.

Patented Sept. 9, 1879.

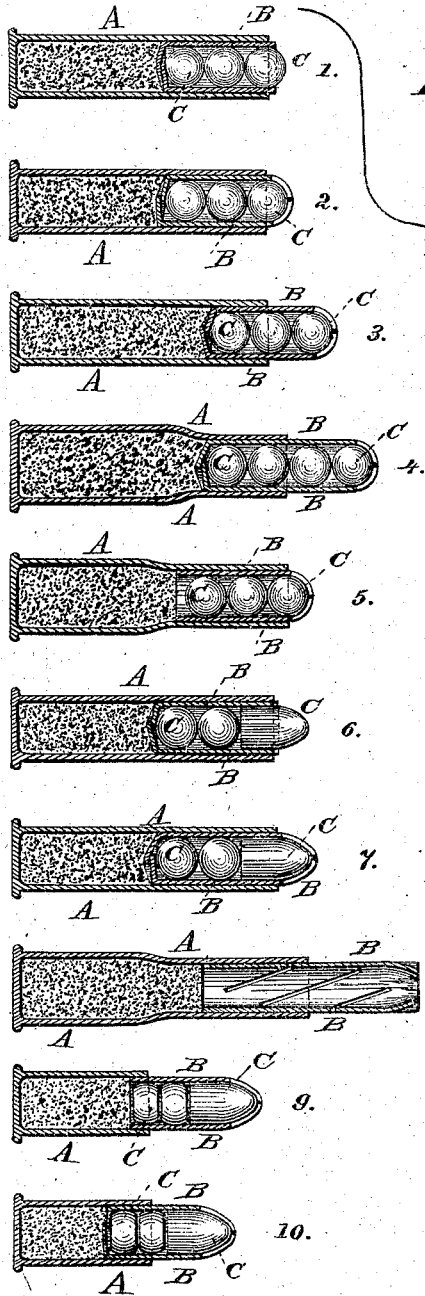


Fig. 1.

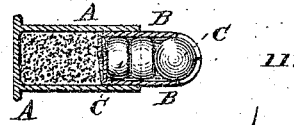
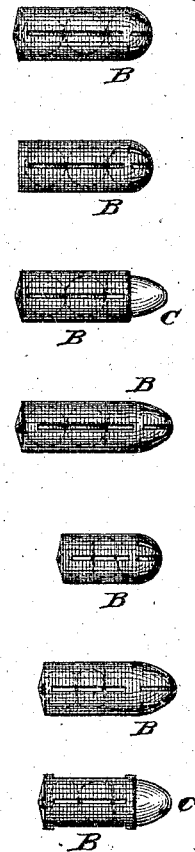


Fig. 2.



Witnesses:

P. C. Dietrich.
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UNITED STATES PATENT OFFICE

HENRY W. MASON, OF SOUTH COVENTRY, CONNECTICUT, ASSIGNOR TO THE
PHOENIX METALLIC CARTRIDGE COMPANY, OF SAME PLACE.

IMPROVEMENT IN CARTRIDGES.

Specification forming part of Letters Patent No. **219,491**, dated September 9, 1879; application filed
July 28, 1879.

To all whom it may concern:

Be it known that I, HENRY W. MASON, of South Coventry, in the county of Tolland and State of Connecticut, have invented certain new and useful Improvements in Cartridges; and I do hereby declare that the following is a full, clear, and exact description of the invention, 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, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to cartridges for breech-loading fire-arms; and consists of a peculiarly-formed case or receptacle for a multiple of balls, combined with a cartridge-shell that contains the powder.

The object of this invention is to produce a strong compact case or receptacle to contain a multiple of balls, the thickness of the walls of the case and the diameter of the balls conjointly being sufficient to cause the case to fill, slug into, take the rifling, and pass out intact, surrounding the balls, and the cases to be partially separated into sections by longitudinal or oblique cuts or slots, so as to cause the balls to separate therefrom after leaving the barrel on firing, to act as a cleaner, lubricate the barrel, prevent leading by any number of discharges, avoid the necessity of the frequent cleaning of the interior of the barrel, and preserve its lubricant under the various ordinary degrees of temperature. The casing also is an insulator, to prevent galvanic action between the metallic shell and balls, thereby preventing deterioration of the powder.

Further, the case is to be constructed so as to firmly secure the balls therein while separated from or attached to the cartridge-shell or powder-case, and, that it may, so separated or attached, be transported in bulk or otherwise without injury. The case being separately constructed, may be conveniently attached to the cartridge-shell or powder-case when desirable. When the case containing the multiple balls is attached to the cartridge-shell or powder-case, it will be sufficiently strong to withstand the rough usage incident

to actual service in the field and preserve its uniformity of shape.

Another and principal object of this invention is to throw a multiple of balls at each discharge, and so produce a very destructive result.

In the annexed drawings, Figure 1 represents vertical sections of a series of cartridges numbered from 1 to 11 and embodying my invention. Fig. 2 represents the ball-cases containing the balls separate from the cartridge-shells.

A represents the metallic cartridge-shell or powder-case. B is the case for containing the balls C C, said case being made of fabricated paper or other suitable fibrous material.

In No. 1 the case B is shown closed on the forward ball, but the ball not covered by the casing.

No. 2 is the same, except that the ball is covered.

In No. 3 the case B projects some distance beyond the shell A and two of the balls sustained by the case.

No. 4 shows a bottle-neck cartridge containing the spherical balls.

No. 5 shows the case closed at the top, but open at the base.

No. 6 is the same as No. 1, except that it contains one cylindro-conical ball and two spherical balls.

No. 7 is the same as No. 2, except that it has one cylindro-conical ball and two spherical balls.

No. 8 shows the case B cut in sections obliquely.

No. 9 shows cartridge for revolvers, open base.

No. 10 is the same as No. 9; but the case is closed at the top and bottom, and contains one conical ball and two flattened or zone balls.

No. 11 is a revolver-cartridge with one spherical ball and two slightly-flattened balls.

In Fig. 2 I have shown the cases containing the balls separated from the metallic shells.

The tubes for the cases are made in the usual and well-known manner by rolling around the

mandrel; then divided in desirable lengths, and the ends of the separated parts closed by compressing in dies, &c., and the longitudinal or oblique cuts then made therein.

The progressive steps made use of by me for the formation of my multiple-ball cases are as follows, viz:

The paper tubes, having been formed as hereinbefore described, are placed upon a gage-table and a series of them pressed against a fine saw, which divides them in lengths as desired. The tubes so separated are then placed under dies properly formed, so as to corrugate the end in a cone-like form, after which they are passed under dies and punches properly constructed, that close the corrugated tops by compression, after which the cases are cut or slit longitudinally or obliquely by rotating knives or other cutting devices. The object of these longitudinal or oblique cuts is for the purpose of causing the balls to separate from the case by centrifugal force after leaving the barrel on firing. The cases, as so far finished, are then filled with a multiple of balls and placed in a series of cylindrical openings, (head downward,) and the extending portion of the case, (bottom end of case,) by corrugation first and compression thereafter, (as described to close the head hereinbefore,) closed over the balls, thus forming the base of the case. The cases are then placed in a proper receptacle and immersed in a lubricating substance.

Although I have described a series of progressive steps and means that I deem best for the formation of my multiple-ball case, it may be made by any known process, and of which it requires no description to enable those skilled in the art to make the same. I therefore do not confine myself to any particular process or machine for making these cases. I however have special devices and machinery for the more perfect and economical construction of my cases, and which will form the subject of a future application for patent.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A cartridge-case head or receptacle for balls made of the hereinbefore-described material or its equivalent, containing a multiple of balls, when said case is closed by compressing its top and base over the balls, in combination with a metallic cartridge-shell or powder-case, for the purposes set forth.

2. A case forming part of a cartridge for breech-loading fire-arms made of fabricated paper or other suitable fibrous material, containing a multiple of balls of sufficient diameter, that, conjoined with the thickness of the walls of the case and closed at the top and bottom, will cause the case, on firing, to detach itself with the balls from the powder-case

or shell, slug into, fill, and take the rifling or grooves of the barrel, and pass out of the barrel intact, surrounding the balls, in combination with a cartridge-shell or powder-case made wholly or in part of a metallic or other substance, substantially as herein set forth.

3. A multiple-ball case made of any suitable material, substantially as described, forming part of a cartridge for breech-loading fire-arms, closed at the top and base, and in part divided by longitudinal or oblique cuts or slots, in combination with a cartridge-shell containing the powder, substantially as herein shown and described.

4. A multiple-ball case made of any suitable material, substantially as described, forming part of a cartridge for breech-loading fire-arms, closed at the top, and in part divided by longitudinal or oblique cuts or slots, in combination with a cartridge-shell containing the powder, substantially as herein shown and described.

5. A multiple-ball case made of any suitable material, substantially as described, forming part of a cartridge for breech-loading fire-arms, closed at the base, and in part divided by longitudinal or oblique cuts or slots, in combination with a cartridge-shell containing the powder, substantially as herein shown and described.

6. The multiple-ball case for fire-arms made of fabricated paper or other suitable material, closed over the balls at top and base, and in part divided longitudinally or obliquely by cuts or slots, substantially as shown and described.

7. A case forming part of a cartridge made of fabricated paper or other non-conducting substance, containing a multiple of balls, closed at its top and bottom sufficiently to securely hold the balls contained therein, in combination with a metallic cartridge-shell or powder-case, the paper case serving also as an insulator, to prevent galvanic action between the balls and the metallic cartridge-shell, substantially as described.

8. A case forming part of a cartridge, containing a multiple of balls, closed at its base, and cut or divided in part longitudinally or obliquely, in combination with a metallic cartridge-shell of sufficient length to close upon the forward one of the multiple balls by crimping or swaging sufficiently to hold it in position.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

HENRY W. MASON.

Witnesses:

CHARLES H. COREY,
ADDISON KINGSBURY.