

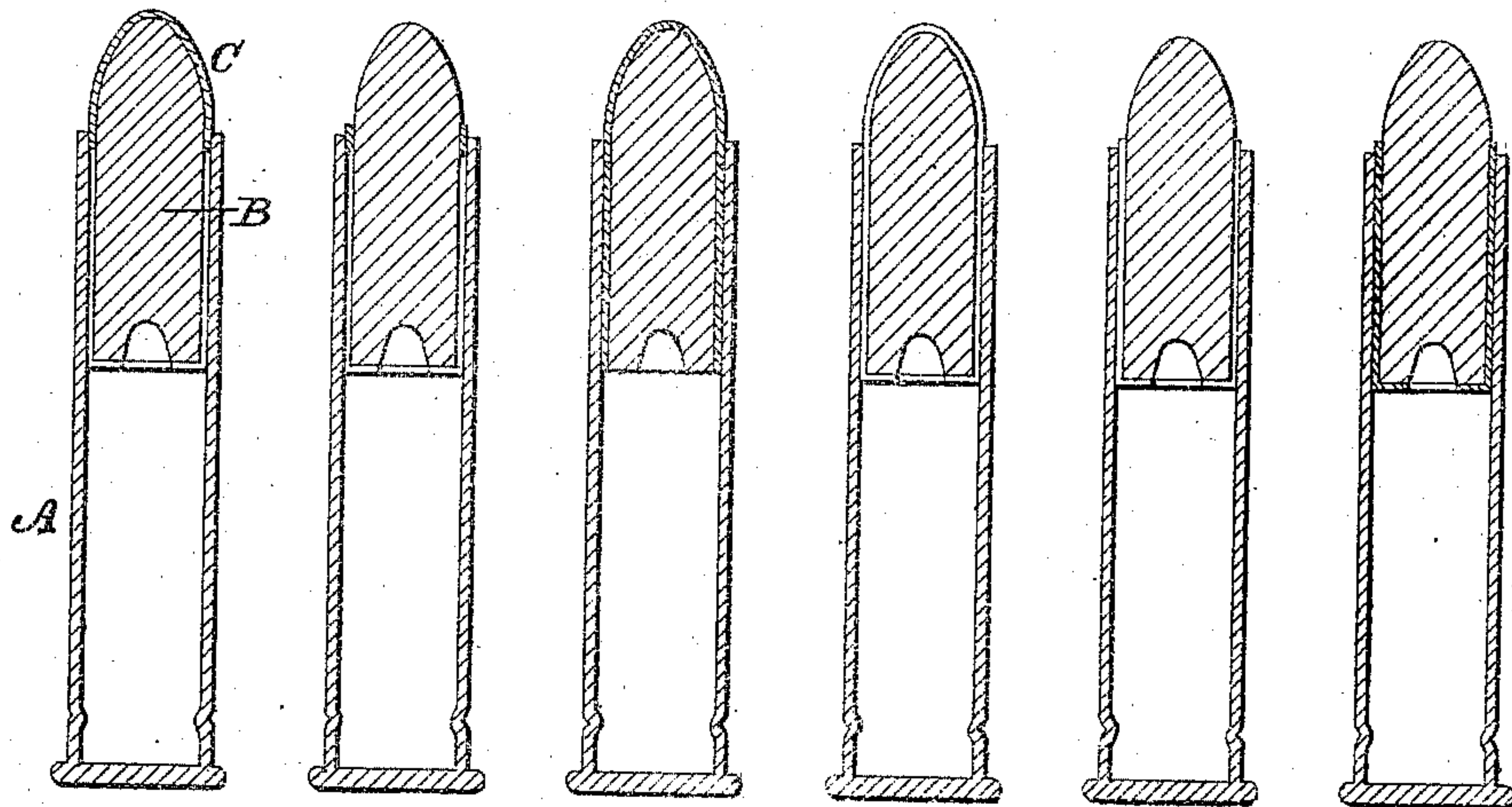
(No Model.)

H. W. MASON.
Paper Patch or Case for Bullets.

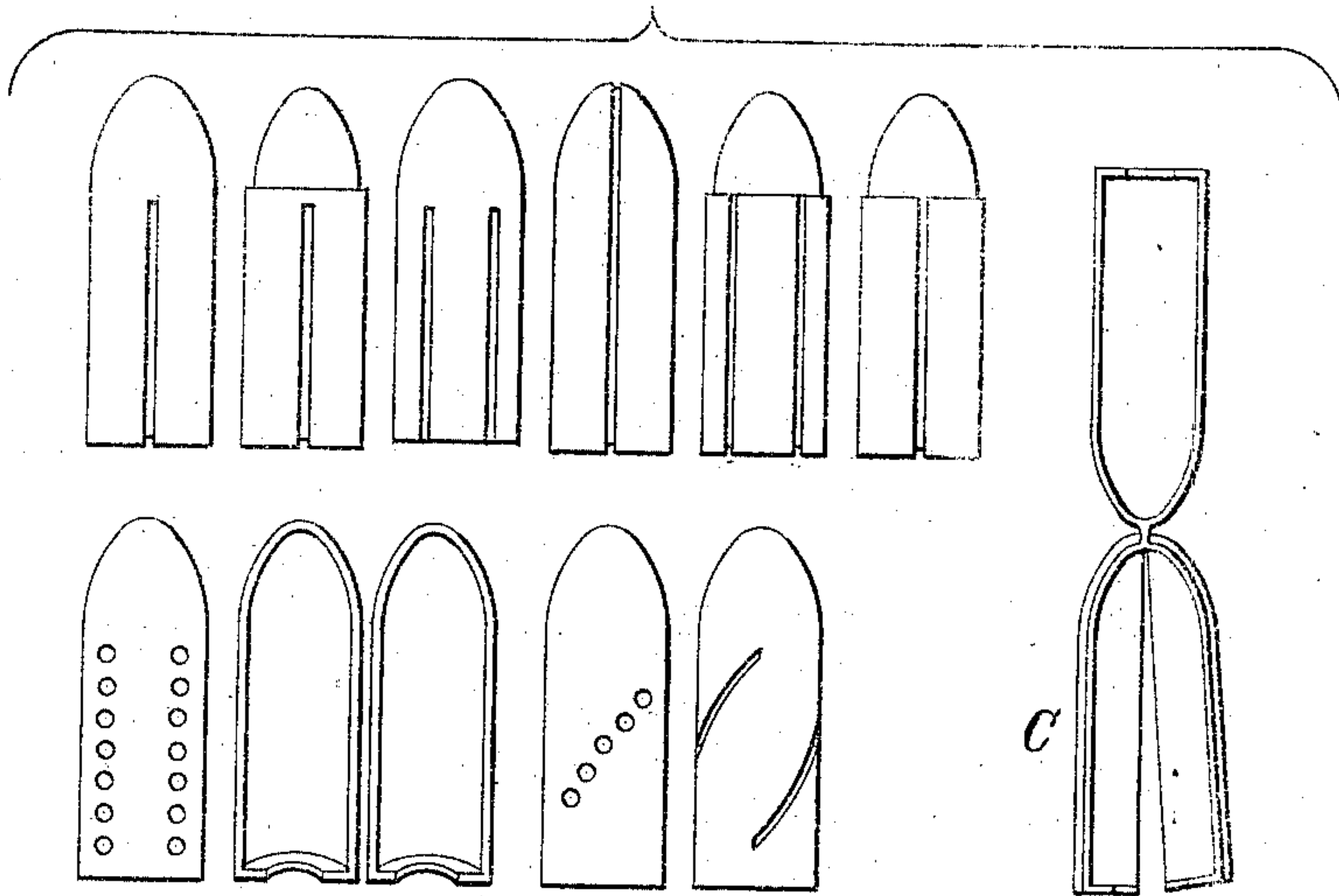
No. 229,327.

Patented June 29, 1880.

Fig. 1. Fig. 2. Fig. 3. Fig. 4. Fig. 5. Fig. 6.



GROUPE. 7



ATTEST:

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INVENTOR:

Henry W. Mason.

UNITED STATES PATENT OFFICE.

HENRY W. MASON, OF SOUTH COVENTRY, CONNECTICUT.

PAPER PATCH OR CASE FOR BULLETS.

SPECIFICATION forming part of Letters Patent No. 229,327, dated June 29, 1880.

Application filed March 17, 1880. (No model.)

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 a new and useful Improvement in Uni-Ball Ammunition; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention relates to incasing the ball or projectile in a peculiarly-constructed case, the walls of said case being of sufficient thickness that, conjoined with the diameter of the ball, will cause the case to slug into and fill the grooves or rifling when fired and give rotary motion to the ball, and the case to be made of a material that combines the substantive elements to produce such results, in combination with a cartridge-shell or powder-case.

The object of this invention is to produce an incased ball for uni-ball ammunition that, when the ball or projectile is made of either steel, iron, zinc, or lead, or similar material, can be used in rifled arms, and the ball or projectile, in its transit through the rifled barrel, without being slugged into the grooves or rifling, shall receive or have transmitted to it by said casing a rotary motion, the same as though the projectile had been slugged into the grooves or rifling in the usual manner, and the ball or projectile clear itself from the casing (after leaving the barrel) at the desired moment of time; and that, when the projectile is made of steel, iron, or other hard material, it will not, in its passage through the barrel, injure the edges of the rifling nor the lands thereof, and, when the softer metals are made use of for the projectile, will render it less liable to strip or upset at its base, to dispense with the cannelures and give an equal distribution of the lubricant over the whole of that portion of the projectile-casing that lies against the lands and that which is slugged into the rifling, and that it may continue with it during its transit through the barrel, the case to preserve the smooth unbroken surface of the projectile, which, after clearing itself from the casing, will present no rough or

asperated parts on which the atmosphere can act to retard its flight or cause divergence; also, that the dirt or fouling caused by the first discharge be removed and the bore cleaned and lubricated by the casing by the subsequent discharge, and so on continuously for any number of discharges, thus giving a continuous easy transit to the projectile, avoid leading, lessen recoil, and protect the rifling from wear; the case also as an insulator to protect the powder from the effect of galvanic action between the projectile and the metallic cartridge-shell.

It is evident that for uni-ball ammunition, especially when a cylindro-conical projectile is used, a casing producing results described above will give an increased range and penetration, a more flattened trajectory, increasing the space of danger, lessen recoil, reduce to a minimum the fatigue caused by continuous firing, prevent fouling, and preserve the arm for a longer period of time.

To enable those skilled in the art to make and use my invention, I now describe the manner in which the casing may be made.

Figure 1 is a longitudinal sectional view of a cartridge. A is the cartridge-shell. B is the ball, and C the casing.

Figs. 2, 3, 4, 5, and 6 are similar views of modifications. Fig. 7 shows views of the case detached, and illustrates the various forms in which the case may be made.

In Fig. 1 is shown the case closed over the top and base of the ball. Fig. 2 shows the case closed over the base but not over the top. Fig. 3 shows the case open at the base but closed over the top. Fig. 4 represents the case divided in equal parts or halves longitudinally.

The case, as shown in Fig. 7, illustrates the different modes in which the cases may be divided in part into sections longitudinally, or divided their entire length.

The tubes for the case I prefer to be made of fabricated paper and formed by rolling on a mandrel in the usual well-known manner, then separated in the desired lengths. These lengths are then placed on studs of proper form and size and subjected to the action of dies that first corrugate the end in a cone-like form, and then, by other properly-formed dies, they

are closed, crimped, and compressed into a dome-like form over the top of the ball and flattened over the base, as desired.

The slitting or dividing of the case is done before the ball is inserted. Any of the well-known devices may be used for this purpose. The cases are placed in a heated solution of paraffine oil and wax, or any other desirable lubricant, and remain therein until a sufficiency of the lubricant has been absorbed by the case.

The slits or cuts, as shown in Fig. 7, are for the purposes of more easily separating the case in sections after leaving the barrel by the centrifugal force communicated thereto by the rotary motion given by the rifling, which causes the case to be thrown off the ball immediately after it leaves the barrel.

I prefer to use fabricated paper for these cases; but any fibrous material that combines the physical characteristics required may be used, and the cases may be formed, when desired, in halves, as shown in Fig. 7, in molds from fibrous substances made in a mash. When thus formed in equal half parts no cuts or slits are required.

I am aware that the patent granted to me September 9, 1879, numbered 219,491, is for a case of similar character, and which, in the main, embodies the principle of this present

application. Nevertheless the claims in said patent are confined to a multi-ball cartridge, and said patent does not show modifications required for a uni-ball cartridge; therefore the purpose of this present application is to secure by Letters Patent the combination of the said casing and its modifications, as herein shown and described, with a uni-ball and cartridge shell or powder-case and the casing when not so combined.

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

1. A case for a projectile, made of fabricated paper or equivalent material, having slits, substantially as described, and for the purposes set forth, in combination with a single projectile.

2. A case for uni-ball ammunition, made of fabricated paper or equivalent material, closed at its top and base by compression, and divided in sections longitudinally by slits or cuts, the said slits or cuts passing along the side and across the base thereof, in combination with a single projectile, substantially as and for the purpose set forth.

HENRY W. MASON.

Witnesses:

EDWARD PARKER,
EDWARD A. WORTHEN.