

R. P. PARROTT.
SABOTS FOR PROJECTILES.

No. 173,331.

Patented Feb. 8, 1876.

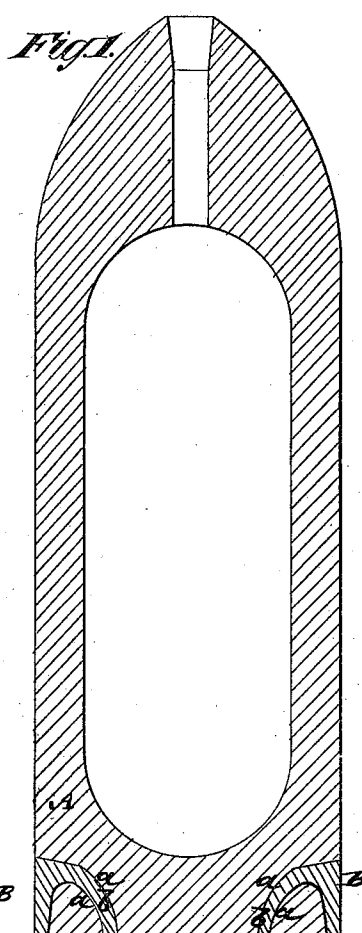
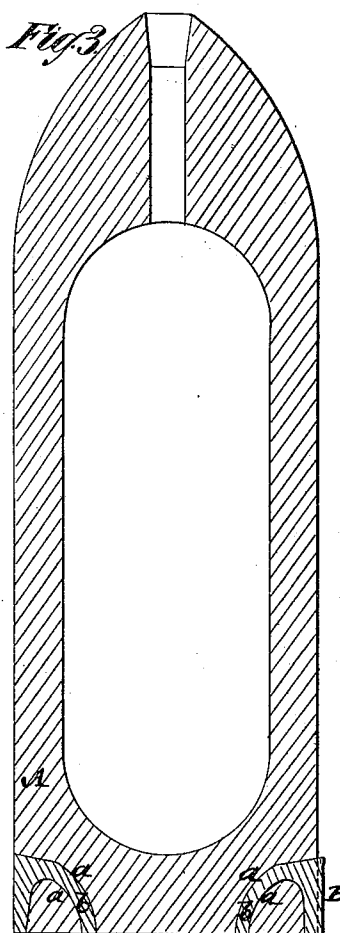
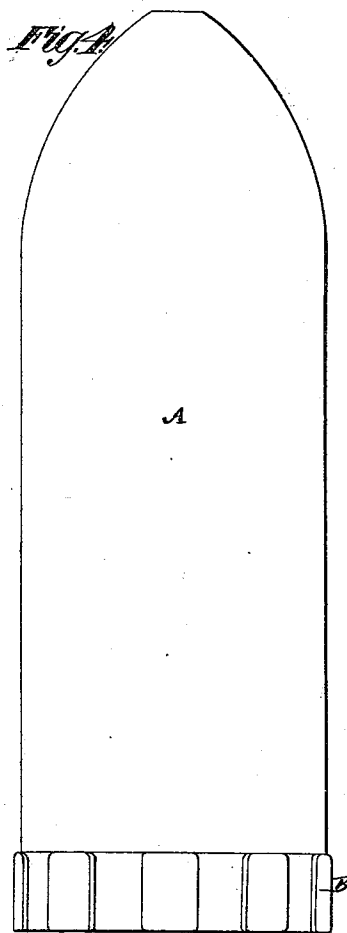
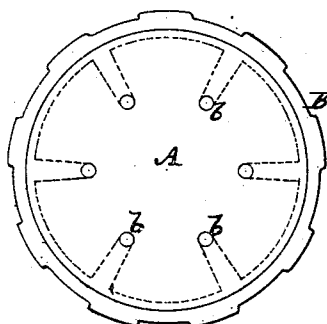
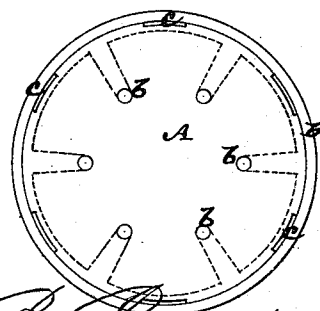


Fig. 5.



Witnesses
John Becker
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Fig. 2.



R. P. Parrott
by his Attorney
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UNITED STATES PATENT OFFICE.

ROBERT P. PARROTT, OF COLD SPRING, NEW YORK.

IMPROVEMENT IN SABOTS FOR PROJECTILES.

Specification forming part of Letters Patent No. 173,331, dated February 8, 1876; application filed January 8, 1876.

To all whom it may concern:

Be it known that I, ROBERT P. PARROTT, of Cold Spring, in the county of Putnam and State of New York, have invented a new and useful Improvement in Projectiles for Rifled Ordnance; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to elongated projectiles for rifled ordnance, having a packing-ring of brass, or other soft or pliable metal, to be upset and expanded laterally, and so driven into the grooves of the gun by the explosion of the charge.

The invention consists in a novel mode of connecting the front of the ring with the cast-iron or body of the projectile by coring or drilling in an interrupted or divided manner said body, to receive and inclose within it separated or distinct portions of the metal of the ring as the latter is cast upon the shot, such entering portions of the ring, preferably, being in the form of prongs or rivets.

By this improvement the ring is firmly held in its place, and the rotation of the projectile secured; also, by it I am enabled to leave passages between the ring and the body of the projectile, to aid in the expansion of the ring by the action of the gas without risk of the ring's breakage or detachment.

Figure 1 is a longitudinal section of an elongated projectile having my invention applied, and in which the ring is plain or smooth on its exterior. Fig. 2 is a view of the base of the same. Fig. 3 is a longitudinal section, Fig. 4 a side view, and Fig. 5 a base end view, of a similar projectile with my invention applied, but in which the ring has exterior projections to enter the grooves of the gun.

The improvement is applicable to both of these forms of projectiles, and pertains to the manner of attaching the ring, which, as represented in the drawing, is as follows:

A is the projectile or body thereof, which is of cast-iron, and which has passages *a a* cored in it, and extending from the forward part of the ring B, and backwardly to the base of the projectile. Said passages may be of circular construction in their transverse section.

The body of the projectile thus prepared has its base part placed in a mold, and the ring

B cast upon and around an annular reduction of the base portion, and so that the soft metal of the ring flows into the passages *a a*, leading from the forward part of the ring to the base of the projectile, and thus forming locking or holding prongs *b b*, which, if necessary, may be riveted down on the base of the projectile.

The number of these prongs or rivets may vary, according to the size of the projectile, or otherwise, as desired.

The ring B is thus so firmly fastened at its forward part to the cast-iron body A that I am enabled to leave openings or passages *c c* between the ring and base portion of the body of the projectile, to allow of the gas in the explosion assisting the expansion of the ring B, to secure its "taking" the grooves without risk of detaching or breaking the ring.

When the ring is formed with projections on its exterior to enter the grooves of the gun, as in Figs. 3, 4, and 5, these openings or passages *c c* may be dispensed with.

Instead of the passages *a a* extending backward to the base of the projectile, they may be run inwardly and forwardly, or simply or mainly in an inward direction toward the longitudinal center of the projectile, and with or without an enlargement at their inner ends to receive or form locking projections on the inner ends of the prongs *b b* of the ring; but it is preferred to construct and arrange the prongs and cavities or passages in the body of the projectile, as shown in the drawing.

When the passages are otherwise arranged, however, or made straight, they might be drilled instead of being cored in the body of the projectile; but I prefer to core said passages, as being cheaper, simpler, and whereby I am enabled to curve them.

I claim—

A projectile for rifled ordnance having a packing-ring at its base end, in which the body of the projectile has separated cavities or passages cored or otherwise formed in it, and the packing-ring made to form fastening prongs or projections, which extend into said passages, substantially as specified.

ROBERT P. PARROTT.

Witnesses:

HENRY JAYCOX,
ALEXANDER SKENE.