G. SCHALCK.

WADS FOR RIFLED GUNS.

No. 169,734. Patented Nov. 9, 1875.

Fig. 1.

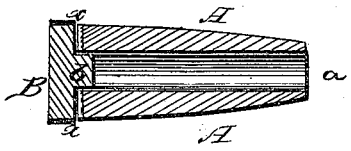


Fig. 2.

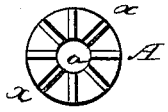
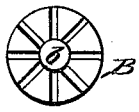


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE SCHALCK, OF POTTSVILLE, PENNSYLVANIA.

IMPROVEMENT IN WADS FOR RIFLED GUNS.

Specification forming part of Letters Patent No. **169,734**, dated November 9, 1875; application filed October 6, 1875.

To all whom it may concern:

Be it known that I, GEORGE SCHALCK, of Pottsville, in the county of Schuylkill and State of Pennsylvania, have invented certain new and useful Improvements in Bullets for Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, 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.

The nature of my invention consists in the construction and arrangement of a ball for fire-arms, as will be hereinafter more fully set forth.

In the annexed drawing, Figure 1 is a longitudinal section of the bullet with wad attached. Fig. 2 is an end view of the bullet. Fig. 3 is an end view of the wad.

A represents the ball, which is flattened at both ends, and has a hole, *a*, through its entire length. This hole is formed by placing a core or point in the mold when casting the ball. By means of this longitudinal hole the ball is steadied in its flight to prevent it from deviating from its proper line, and it also lessens the friction or resistance of the air. At the rear end the ball is provided with ribs *x x*, produced by cutting corresponding grooves or notches in the bullet-mold, by which means the ball is enabled to sit firmer on the patch or wad. B represents the patch or wad, made of leather or material that will not expand, so that the wad fills the bore of the gun, and remains of the same size all the time, overcoming the objections presented by an elastic wad, which will expand more or less, according to its thickness and to the force applied to it. This patch or wad fits into the bore or cuts of the barrel, and has a part, *b*, projecting into the hole *a* of the ball. The ball to be used with such patch or wad is to be a trifle smaller than the full bore or grooves of the barrel, and shall move clear of them, or touching them but lightly. The patch or wad B follows the course of the grooves or cuts, and the ball sitting firmly on it, the patch or wad imparts to the ball the rotary or twisting motion, which is now obtained by compelling the ball itself to fit into and follow such grooves or cuts. This is, however, equally applicable to smooth-bored barrels.

The patch or wad further operates as a wiper or washer, wiping out the bore, and preventing the dirt or powder-soot from sticking to the sides of the barrel.

By my invention an iron barrel may be used just as long, and as well and as advantageously, as a barrel made of steel or other expensive material, because the wear on the bore and the cuts and grooves of the barrel is scarcely perceptible, and the number and depth of the cuts or grooves in rifled barrels may be greatly lessened, and the process of loading simplified.

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

The hollow ball A, provided with ribs *x x*, in combination with the wad or patch B, constructed of non-expansive material, having projection *b* projecting into the hole *a* of the ball, and having projections fitting the ribs in the ball, the said ball being a trifle smaller than the bore, and the patch fitting the bore closely, whereby rotary motion is imparted to the ball by the patch, which also acts as a wiper to the gun, all constructed substantially as and for the purpose set forth.

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

GEORGE SCHALCK.

Witnesses:

HARVEY W. HATCH,

H. K. WESTON.