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A. R. SCHERF

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RIFLE

Filed April 29, 1929

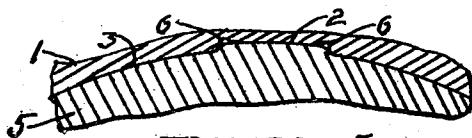


FIGURE 5

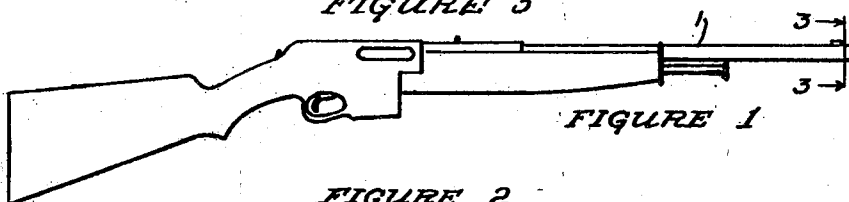


FIGURE 1

FIGURE 2

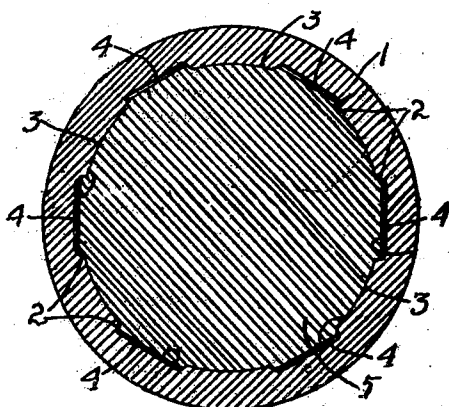
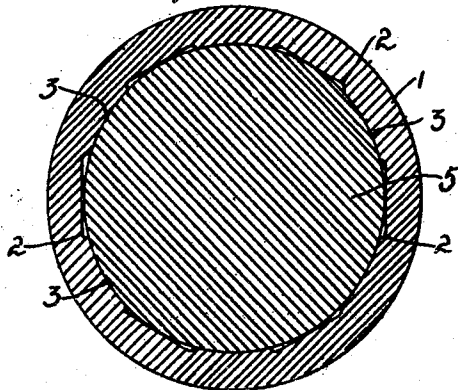


FIGURE 3

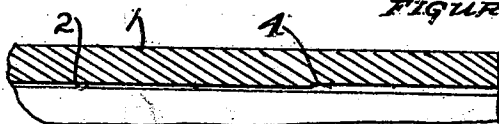


FIGURE 4

INVENTOR  
*Arno R. Scherf*  
*John A. Moismith*  
ATTORNEY

# UNITED STATES PATENT OFFICE

ARNO R. SCHERF, OF SAN JOSE, CALIFORNIA

## RIFLE

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It is the object of the invention to provide a means and method of increasing the firing accuracy of rifles.

In the drawing:

5 Figure 1 is a side elevation of a rifle embodying my invention.

Figure 2 is an enlarged cross-section of the barrel of a rifle embodying my invention at a point adjacent the breech.

10 Figure 3 is an enlarged cross-section of the barrel at 3—3 of Figure 1.

Figure 4 is a longitudinal section of a portion of a rifle embodying my invention.

Fig. 5 is a fragmentary section, similar to 15 Figs. 2 and 3, showing a modified form of my invention.

Referring now more particularly to the drawing I show at 1 a rifle barrel provided with any number and form of rifling grooves 20 as at 2, with the lands indicated at 3.

In effecting my invention I increase the depth of the several grooves 2 equally throughout the latter part of their length, that is to say for about an inch or so where 25 they communicate with the discharge end of the barrel, indicated at 4.

By means of my invention as the bullet 5 emerges from the barrel the confined gases are permitted to pass through the deepened 30 grooves at 4 and escape upon all sides thereof.

It will be noted that by this method the gas pressure has expended its greatest force when the bullet reaches the end of the barrel and is then allowed to flow past the bullet 35 before the base of the bullet emerges from the end of the barrel.

Ordinarily when the base of the bullet leaves the barrel its slightest deviation from axial alignment therewith, or the deformed 40 base of the bullet, will permit the gases to escape unequally about the base thereof, thereby accentuating the wobbling movement, but by reducing the gas pressure behind the bullet just before its base emerges 45 from the barrel this result is satisfactorily corrected, and the development of unequal pressures effectually prevented.

In Figure 5 I have shown a form of the invention in which the corners only of the 50 portion 4 are deepened as shown at 6.

It is to be understood, of course, that while I have herein shown and described but one specific embodiment of the invention, changes in form, construction, and method of formation and application may be made 55 within the scope of the appended claim.

I claim:

A rifle barrel having rifling grooves formed therein throughout its length, the rifling grooves being uniformly increased in 60 cross-sectional area a distance inwardly from the discharge end of the barrel, whereby to permit the confined gases to escape around the sides of the bullet just before its base emerges from the barrel. 65

ARNO R. SCHERF.

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