

No. 660.496.

Patented Oct. 23, 1900.

W. S. EVANS.

GUN BARREL.

(Application filed July 16, 1899.)

(No Model.)

FIG. 1.

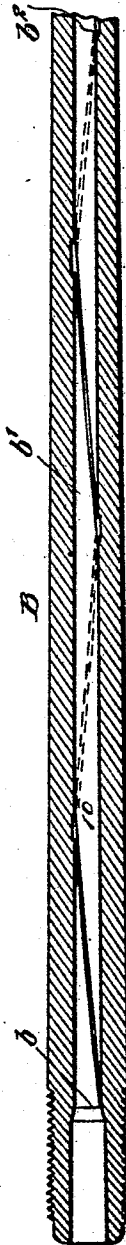
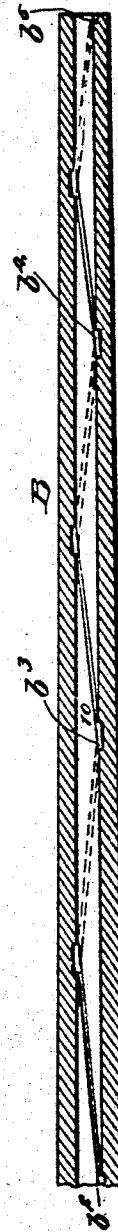


FIG. 2.



WITNESSES:

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WILLIAM S. EVANS, OF LEECHBURG, PENNSYLVANIA.

GUN-BARREL.

SPECIFICATION forming part of Letters Patent No. 860,498, dated October 23, 1900.

Application filed July 15, 1899. Serial No. 723,889. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. EVANS, of Leechburg, in the county of Armstrong and State of Pennsylvania, have invented a new and useful Improvement in Breech-Loading Firearms, of which the following is a full, clear, and exact description.

The object of my invention is to construct a breech-loading firearm in such manner that the barrel will be provided with a choke-bore and in which the rifling of the barrel will increase in sharpness in a certain ratio from the breech to the muzzle.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 is a longitudinal section through a portion of a gun-barrel having the invention applied, and Fig. 2 is a continuation of the sectional view of the barrel shown in Fig. 1.

The rifle shown is intended to represent one of thirty-five caliber, which I am aware is not the ordinary caliber, and the entire rifle is to be about fifty-four inches; but although I have illustrated a rifle of the above-named dimensions the improvement to be hereinafter described may be applied to the ordinary or standard rifle. The barrel B is provided with a true taper choke-bore 10 from breech to muzzle, and the taper is in about the ratio of thirty-seven caliber at the breech, thirty-six caliber at the center of the barrel, and thirty-five caliber at the muzzle. The rifling of the barrel commences at the breech, one turn in about nine inches. This section of rifling extends from b to b' , (see Fig. 1,) and in the section of the barrel between b' and b'' the rifling is one turn in eight inches, as is also shown in Fig. 1, while, as illustrated in Fig. 2, in the section of the barrel between b'' and b''' the rifling is one turn in seven inches, and in the part of the barrel between b''' and b^4 the rifling is one turn in six inches. In that portion of the bore of the barrel between b^4 and b^5 , or the muzzle, the rifling is one turn

in five inches. Thus the bore of the barrel is provided with five successive turns, increasing in sharpness from the breech to the muzzle. This increase in the sharpness of the pitch in each successive turn in the rifling serves to greatly increase the revolution of the bullet in its passage from the breech to the muzzle.

The above applies to rifle-barrels of a specified caliber; but under my system in rifling gun-barrels in general I employ one turn in thirty calibers, a second turn in twenty-five calibers, a third turn in twenty calibers, a fourth turn in fifteen calibers, and a last turn in ten calibers.

The rifling-cuts throughout the bore of the barrel are of true parallel, and thus as the barrel has a choke-bore the rifling is shallow at the breech, but deeper at the muzzle, thus affording a greater hold upon the bullet where the rifling is given the sharpest turns.

The word "parallelism" is intended to define the grooves of the barrel as being of uniform depth or distance from the axis of the bore throughout their length, and therefore the grooves are concentric.

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

1. A rifle-barrel which tapers uniformly from the rear to the front end and in which the rifling is of uniform radial distance from the axis of the bore.

2. A choke rifle-barrel, the rifling whereof is of uniform radial distance from the axis of the bore, the bore tapering uniformly from the rear to the front end, the rifling being successively and gradually increased in the number of turns to an inch in the ratio of about one inch in each section of rifling, the least number of turns to the inch being at the breech of the barrel, a greater number of turns near the center and the greatest number of turns at the muzzle, and the lands of the rifling being parallel throughout the length of the barrel.

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Witnesses:

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