

DEXTER SMITH.  
Improvement in Shot-Guns.

No. 115,370.

Patented May 30, 1871.

FIG. 1

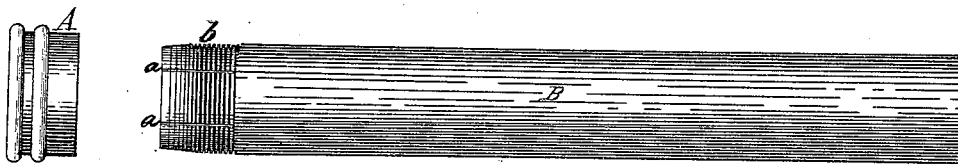


Fig. 2

FIG. 3

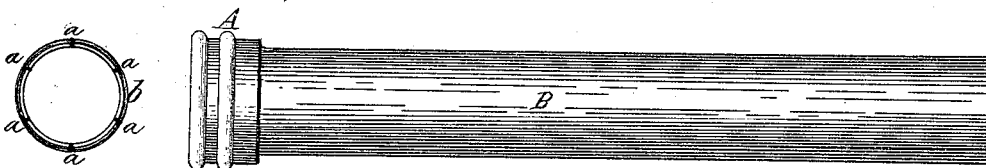


Fig. 4

Witnesses,

Clarence Buckland,  
clerk & Howard.

Dexter Smith, Inventor  
By J. H. Curtis, his atty.

## UNITED STATES PATENT OFFICE.

DEXTER SMITH, OF SPRINGFIELD, MASSACHUSETTS.

## IMPROVEMENT IN SHOT-GUNS.

Specification forming part of Letters Patent No. 115,370, dated May 30, 1871.

*To all whom it may concern:*

Be it known that I, DEXTER SMITH, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Sporting Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification and to the letters of reference marked thereon, in which—

Figure 1 is a side view of a portion of a gun-barrel, showing the muzzle with longitudinal openings cut therein, and a screw-thread upon the outside, upon which is placed a threaded ring or ferrule; Fig. 2 is a side view of the ring or ferrule; Fig. 3 is a side view of the same portion of the barrel with the ring screwed thereon; and Fig. 4 is an end view of the muzzle of the gun, showing the openings made therein.

My invention relates to the construction of the muzzle of a shot-gun barrel, whereby said muzzle is made adjustable—that is, larger or smaller in diameter within the bore—to any desired degree, for the purpose of causing the shot to be thrown closer together or to be more scattered at each discharge of the gun; and it consists of longitudinal slots or openings made at several points around the barrel at the muzzle, and a ring or ferrule tapered upon the inside and having a screw-thread made therein, and made to fit the outside of the barrel at the muzzle, which is also tapered and has a screw-thread made thereon, so that as the ring or ferrule is turned on more or less upon the barrel the several parts of the barrel at the muzzle, between the openings or slots, shall be more or less compressed together, and the diameter of the bore at the muzzle be diminished or increased or increased according as the ring is turned on more or less.

That others skilled in the art may be able to make and use my invention, I will proceed to describe its construction and operation.

In the drawing, B represents that portion of a gun-barrel near the muzzle, and *a a* represent slots or openings which are made in the barrel at the muzzle in a longitudinal direction. The outside of the barrel has a screw-thread, *b*, made thereon, and that part of the

barrel upon which the thread is made is tapered, the diameter at the extreme end of the barrel being the smallest. A represents a ring or ferrule, which has a screw-thread made upon the inside and is tapered to fit the outside of the barrel at *b*, and the smallest inner diameter of the ring A is somewhat larger than the inner diameter of the bore of the barrel, so that at no time does the shot as it issues from the bore touch the inside of the ring or any portion of it, said ring being merely used to clamp or compress the muzzle of the gun together where it is cut at *a*, and not to form any portion of the bore at the muzzle.

Instead of using a screw-thread to secure the ring A upon the barrel, one or more studs may project from the barrel, and a helical slot made in the ring similar to the common bayonet attachment may be used; but I prefer the screw-thread attachment as it is more simple in its construction.

It will be seen that by this device any degree of concentration of the shot may be readily attained by merely turning the ring a little either on or off. This feature I deem to be of very great advantage, as by the use of the false muzzles now commonly employed no variation in the concentration of shot can be made except by detaching one and attaching another in its place, of a different reduction in the bore, as the false muzzles now used are fixed and unchangeable in their operation, as they form a part of or a continuation of the bore of the gun.

I am aware that various detachable muzzles have heretofore been made and used, and I do not claim any device wherein the detachable portion forms any part of, or any continuation of, the bore of the gun; but

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

A gun having a variable muzzle made adjustable in size by means of the ring A tapered inside, and secured to the tapered end *b* of the barrel having the openings *a* made therein, substantially as described.

DEXTER SMITH.

Witnesses:

CLARENCE BUCKLAND,  
T. A. CURTIS.