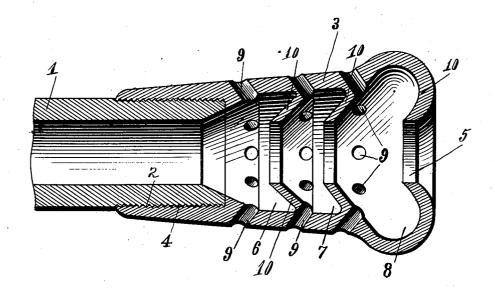
M. F. SMITH.
GUN.
APPLICATION FILED NOV. 5, 1903.



Hanolshurd M. B. Hayes. Morris F Smith Kright Bros

UNITED STATES PATENT OFFICE.

MORRIS FORD SMITH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF THREE-FOURTHS TO WILLIAM DAVIDSON CONDIT, OF DES MOINES, IOWA.

GUN.

No. 817,134.

Specification of Letters Patent.

Patented April 3, 1906.

Original application filed February 21, 1903, Serial No. 144,547. Divided and this application filed November 5, 1903. Serial No. 179,957.

To all whom it may concern:

Be it known that I, Morris Ford Smith, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Guns, of which the following is a specification.

The present application is a division of my application for "Improvements in gas-operto ated machine-guns," Serial No. 144,547, filed

February 21, 1903.

My invention relates to recoil-neutralizing attachments for application to gun-muzzles.

The object of my invention is to provide an 15 improved muzzle attachment that may be readily adapted to any gun for more fully overcoming the reaction of firing.

In order that my invention may be more

clearly understood, reference will be had to the accompanying drawing, which is a longi-tudinal sectional view of the muzzle-cap shown mounted upon the end of the gun-bar-

In the drawing, 1 represents the gun-barrel, 25 which is provided with an external screwthread 2, upon which the cap 3 is secured by a corresponding internal screw-thread 4. The cap 3 has a bore 5 of a caliber corresponding to the gun-bore and is formed with a plu-30 rality of chambers 6, 7, and 8. While I have shown only three such chambers, I do not limit my invention to any definite number, it being understood that the number may be increased or diminished, as found desirable.

The walls of each of said chambers 6, 7, and 8 35 are provided with rearwardly-extending perforations 9, and the chambers are constructed with walls 10 of large surface inclined to the axis of the bore, so that a pressure in opposite direction to the recoil will be increased so far as possible. The effect of the rearwardly-opening perforations 9 will be to countered the recoil of the remainder of the recoil of the rec teract the recoil of the gun.

It will be observed from the drawing that each chamber is larger and has a correspond- 45 ingly-greater front-wall surface than the one in rear of it. The gases which reach these chambers successively are under decreasing pressure, and each chamber gives room for additional expansion. Hence the gases are 50 employed in multiple capacity and exercise a greater reactionary force.

Having thus described my invention, the following is what I claim as new therein and

desire to secure by Letters Patent:

In a gun, a recoil-neutralizing attachment consisting of a cap adapted for attachment to the forward end of the gun, and constructed with a central bore intersecting chambers increasing in size toward the outer end, and 60 formed with inclined walls and rearwardlyinclined discharge-openings.

The foregoing specification signed this 3d day of November, 1903.

MORRIS FORD SMITH.

In presence of-Francis S. Laws, JAMES WARNOCK.