

No. 830,222.

PATENTED SEPT. 4, 1906.

I. F. GOOD.
ORDNANCE.

APPLICATION FILED OCT. 11, 1905.

Fig. 1.

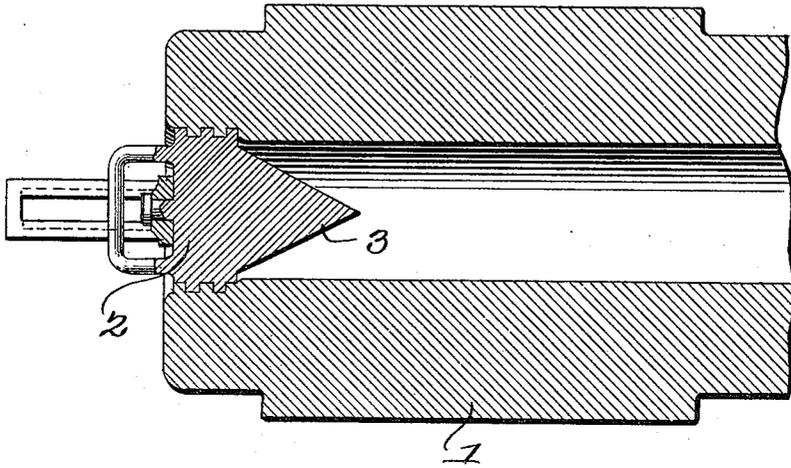
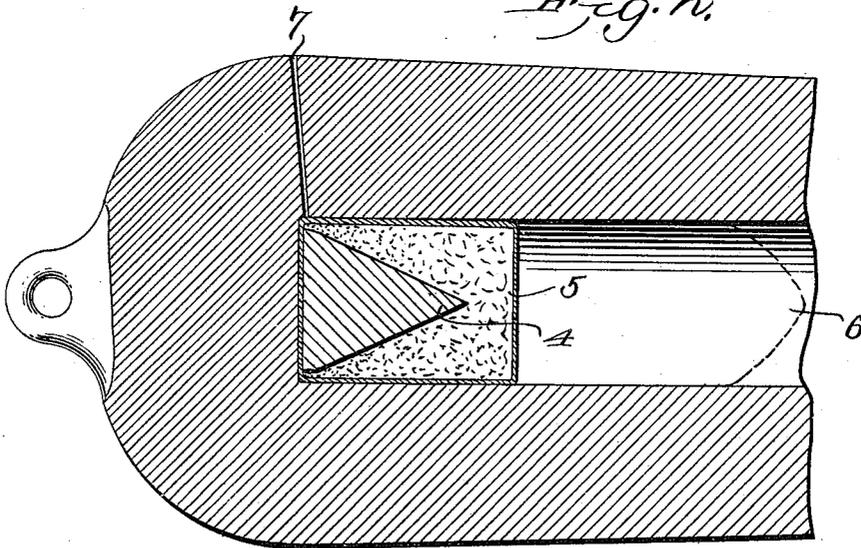


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

ISRAEL F. GOOD, OF ALLENTOWN, PENNSYLVANIA, ASSIGNOR OF ONE-SIXTH TO PHAON GUTH, ONE-SIXTH TO ROGER GUTH, AND ONE-SIXTH TO BENJAMIN F. SELL, OF ALLENTOWN, PENNSYLVANIA.

ORDNANCE.

No. 830,222.

Specification of Letters Patent.

Patented Sept. 4, 1906.

Application filed October 11, 1905. Serial No. 282,311.

To all whom it may concern:

Be it known that I, ISRAEL F. GOOD, a citizen of the United States, residing at Allentown, in the county of Lehigh and State of Pennsylvania, have invented a new and useful Ordinance, of which the following is a specification.

This invention relates to ordnance.

The object of the invention is practically to eliminate recoil on the discharge of the gun and to conserve ammunition, so that with the minimum of powder the maximum of efficiency as to speed and penetration of the projectile shall be secured.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in a novel means for reducing the ignition area of a charge of ammunition, as will be herein-after fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate corresponding parts, Figure 1 is a view in section of the breech portion of a breech-loading cannon exhibiting the improvements of the present invention applied thereto. Fig. 2 is a similar view showing the improvements employed in connection with a muzzle-loading cannon.

Referring to the drawings, 1 designates the breech portion of the breech-loading cannon, and 2 the breech-block, which may be either of the sliding and swinging type or of the sliding type, and as the precise construction of the breech-block forms no part of the present invention detailed illustration and description thereof is omitted. The invention resides in combining with the breech-block a means for reducing the igniting area of the powder, whereby the explosion of the powder takes place gradually instead of instantaneously, thereby avoiding heavy shocks and recoils and also conserving the powder and causing it to be more effective in the propulsion of a projectile than with the ordinary practices commonly in vogue. This result is effected by combining with the breech-block a solid or imperforate cone-shaped element 3, the apex of which is projected toward the muzzle of the gun and which may be either integral with the breech-block or secured thereto. Where a gun is already in use, the attachment may be combined with the breech

thereof; but where the gun is being made it may be formed integral with the breech-block. This ignition-reducer may be of any desired length up to the full limit that will permit the breech-block to be swung clear of the bore and at its base may be of the same diameter of the bore or of less diameter, as preferred.

In use when the bag containing the ammunition has been placed within the breech and the breech-block closed the attachment will pierce the bag as the plug is being positioned and cause part of the ammunition to be disposed around its entire length back to the plug, and upon the charge being ignited at the base of the attachment, where very little powder is located, the charge will gradually burn forward, thereby giving a gradual impulse to the projectile, which will be accelerated when all the charge is ignited. Objectionable rebounding or recoil such as produced by the sudden ignition of an entire charge is thus practically entirely obviated.

As shown in Fig. 2, the same idea may be carried into effect in connection with a muzzle-loading gun, wherein the reducer 4 is made of wood and is disposed in the butt of the sack or bag 5 containing the powder, in front of which is the projectile 6, of any preferred construction. When the charge is ignited through the touch-hole 7, that portion at the base of the reducer first burns and gradually ignites the remainder of the charge, thereby securing the same results as that above described.

These improvements are capable of being applied to muzzle-loading shot-guns by providing a reducer having a threaded shank and by furnishing the breech-screw with a threaded orifice to receive the shank.

While the improvements are herein described as used in connection with breech and muzzle loading guns, it is to be understood that they are adaptable for use in connection in any kind of firearms or ordnance where their use will be found of advantage, and as this will be readily understood illustration of any further modification is omitted.

Having thus described the invention, what is claimed is—

1. A firearm having a breech-block formed with an integral conical extension substantially equal in diameter at its base to, and

adapted to project into, the bore of the fire-
arm to form an ignition-reducer.

2. The combination with a hollow device
for containing explosives; of a solid conical
5 device substantially equal in diameter at its
base to, and seated within, the hollow de-
vice to form an ignition-reducer.

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

ISRAEL F. GOOD.

Witnesses:

U. S. LITZENBERG,
BISHOP D. JUDD.