

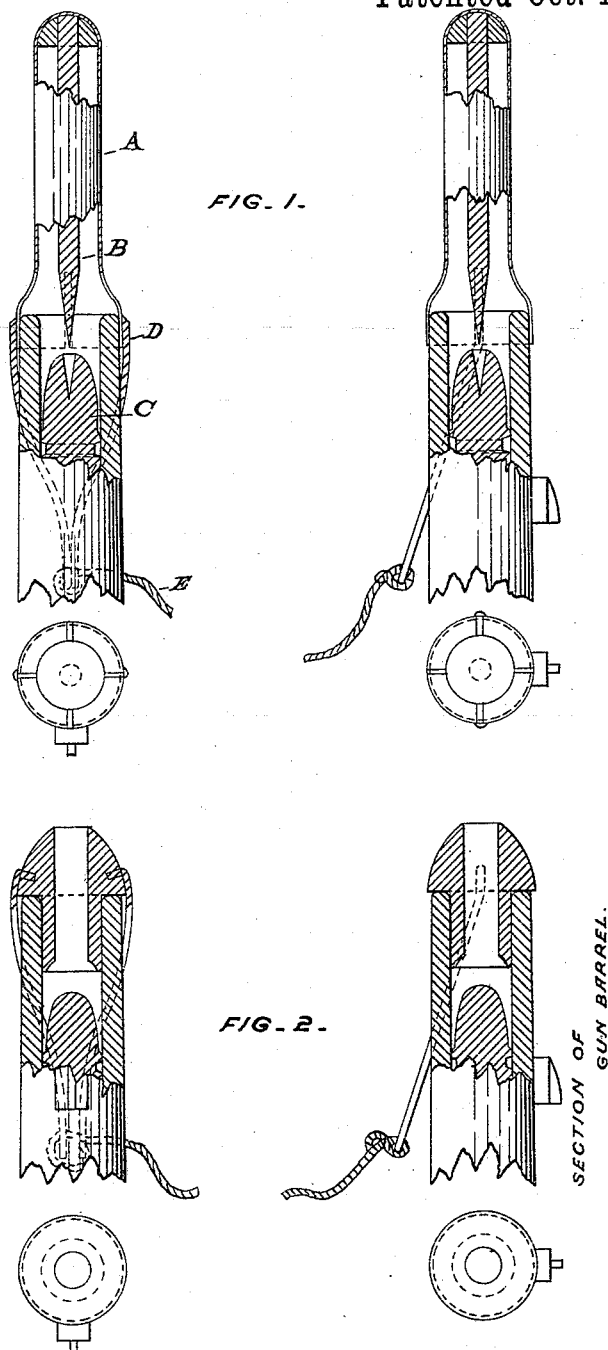
(No Model.)

M. W. LYON & W. B. GORDON.

LINE THROWING PROJECTILE.

No. 265,969.

Patented Oct. 17, 1882.



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LINE-THROWING PROJECTILE.

SPECIFICATION forming part of Letters Patent No. 265,969, dated October 17, 1882.

Application filed February 23, 1882. (No model.)

To all whom it may concern:

Be it known that we, MARCUS W. LYON and WM. B. GORDON, of the Ordnance Department, United States Army, stationed at the Frankford Arsenal, Philadelphia, Pennsylvania, have invented a new and useful Projectile for Saving Life and other useful Purposes, as fully set forth in the following specification, reference being had to the accompanying drawings.

The object of this invention is to throw a line from one point to another for means of communication, to save life, and for many useful purposes. Its particular object is to throw a line into the window of a burning building to enable the occupants to draw up any device by means of which they may make their escape. It also finds an application, when used in guns of appropriate caliber, in throwing lines from ship to shore or from shore to ship, for the purpose of enabling persons to escape from shipwrecked or stranded vessels. Its small size and portability, when used with small arms, render it very useful for many purposes in the military service—such as aiding in the crossing of rivers and for conveying information through short distances when other means are not at hand, &c.

In the accompanying drawings the parts are shown as follows:

Figure 1 shows side views, partly sectioned, and also end views, of our device; Fig. 2, similar views of a modification.

A is a case or holder, forming with spindle the exterior part of the projectile; B, spindle to receive the bullet when fired; C, bullet; D, attachment for line; E, line.

The case or holder A, containing the spindle B, is secured to the muzzle of the gun, the flanged part of the case acting as a spring to hold it securely until the piece is fired, as shown in the drawings. The spindle B is thus centered in the bore of the gun, so that it will receive the impact of the bullet C. The spindle pierces the bullet and secures it in the case, the whole combination thus forming the pro-

jectile. The spindle may be pointed, and the head of the bullet may be either flat or have a shallow hole bored in its point, so as to be pierced more readily. The same result may be secured by not pointing the spindle, but by boring the hole deeper in the bullet, so that the spindle will be friction-tight in the bullet. The arrangement of the spindle and bullet enables the inertia of the external part of the projectile to be overcome gradually, so that a high velocity may be obtained without injury to the attachment for the line. This object may also be obtained by substituting for the case a holder with a conical cavity for receiving the bullet with substantially the same result as described above.

It will be understood that the air in the gun-barrel is permitted to escape through slots in the case A (shown in dotted lines) when the gun is fired before the bullet reaches spindle B.

The projectile can be used with any arm, and the manner of doing so is as follows: The exterior part of the projectile, consisting of the case and spindle, is secured to the muzzle of the gun, as described, and the line attached. The cartridge, with the bullet modified as above, is then placed in the chamber ready for firing. The line may be faked in a box attached to the barrel, or laid out on the ground, so as to be taken up easily; or a ball of wrapping-twine may be used instead of a faking-box, the line coming out from the inside of the ball when the piece is fired. The gun as thus prepared is aimed and fired and the bullet attaches itself to the spindle in the manner described, the line being thrown to the desired point.

The advantages of this invention are, first, portability and ease of application; second, adaptability to any small arm or line-throwing cannon; third, the inertia of the combination on the muzzle is overcome gradually, thus allowing a high velocity and secure attachment for the line; fourth, the accuracy of fire when used with rifles enabling a line to be

thrown into the window of any high building when on fire, affording a rapid and easy means of escape.

Having thus described the value and object
5 of the said invention, we claim—

1. A line-bearing cap to fit over the muzzle of a gun, said cap having a passage for the escape of gas, and being adapted to rest upon and become part of the projectile when the gun
10 is fired, substantially as described.

2. A line-bearing cap adapted to fit upon the muzzle of a gun, and having a central spindle extending toward the bore of the gun to engage with the bullet when fired, as set forth.

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