S. EGGERS & E. PIERCE.

Projectile for Throwing Lines.

No. 208,724. Patented Oct. 8, 1878.

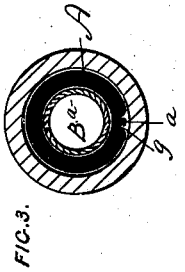

FIG. 3.

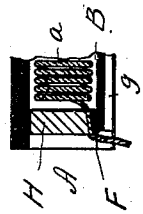

FIG. 2.

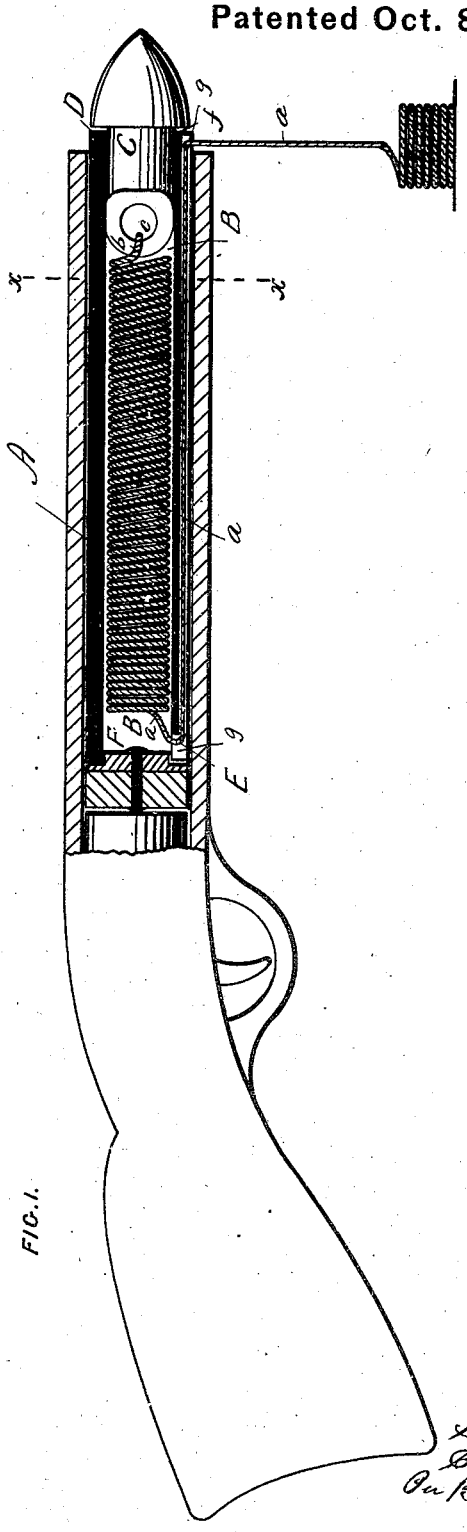

FIG. 1.

WITNESSES.

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UNITED STATES PATENT OFFICE.

SELMAR EGGERS AND EBENEZER PIERCE, OF NEW BEDFORD, MASS.

IMPROVEMENT IN PROJECTILES FOR THROWING LINES.

Specification forming part of Letters Patent No. **208,724**, dated October 8, 1878; application filed March 16, 1878.

To all whom it may concern:

Be it known that we, SELMAR EGGERS and EBENEZER PIERCE, both of New Bedford, in the county of Bristol, in the State of Massachusetts, have invented a certain new and useful Improved Projectile for Throwing Lines, of which the following is a specification:

This improvement relates to an appliance for throwing safety or escape lines, in cases of shipwrecks, &c., either from off shore or onto shore, as well also for use when desirous of throwing a line attached to a harpoon in catching whales, to be used in connection with any suitable impelling implement, such as an ordinary gun, cannon, &c.

Heretofore, in cases of shipwreck, as is well known, lines have been thrown by attaching one end to a cannon-ball, and then firing that ball in the direction desired, the line paying out to its movement, and thereby strung between the two points desired; but in all these cases, so far as is known to us, this paying out of the line was always from the place at which the line was thrown, which method, as is well known and as is obvious, is attended with many disadvantages.

This invention consists in a novel construction of hollow projectile, adapted to inclose and pay out during its flight a line, one end of which is secured at the point of projection.

In the accompanying plate of drawings our improved line-throwing projectile is illustrated, Figure 1 being a central longitudinal section thereof; Fig. 2, a similar detail section in part illustrating the third feature of this invention; and Fig. 3, a cross-section on line *x x*, Fig. 1.

In the drawings, A represents our improved projectile, and it is shown as lying within the barrel of a gun, and such barrel at its breech provided with a wad and cartridge, and otherwise adapted as ordinarily for discharging a projectile. This projectile A is cylindrical and hollow from end to end, and within its chamber B is coiled a line, *a*, that at one end, *b*, is fastened in any suitable manner—as, for instance, by tying it to the eye *c* of a plug, C, which fits into and closes one end, D, of the projectile A, and is shouldered, as at *f*, so as to abut against said end D of the projectile, and thus be held against being drawn or otherwise forced into the chamber of the projectile.

The other end, E, of the coiled line *a* passes out of the open end F of the projectile, which is, opposite to the end D, closed by the plug C, as aforesaid, and from this open end toward the other end D of the projectile the exterior of the projectile is grooved, as at *g*, along its length, for the line which leads from the open end F, as aforesaid, to be disposed along the length of the exterior of the projectile, and in such disposition be so laid within the body of the projectile that when the projectile is placed within the barrel of the gun, with its open end toward the breech, the coiled line within the projectile can lead out therefrom to the open muzzle end of the gun, to be there fastened or held against escape from the place at which the projectile is to be discharged, and in such disposition interfere in no way with the desired fit of the projectile within the barrel, all as is plainly shown in Fig. 1.

A projectile, A, constructed as described, and having within it a line, which is coiled or otherwise disposed suitably therein, and also disposed in relation to the projectile, on being discharged from the gun, in its flight through the air obviously pays out the line which it carries, and thus distends such line between the two places desired—to wit, the place at which the projectile is discharged and the place to which it is to be sent; and if the end of the coiled line, which is held in any suitable manner at the place of discharge, be there connected with any suitable relay of line, obviously, should the distance which the projectile travels exceed the length of line which was coiled within it, such relay of line will supply the deficiency existing in the length of the line carried by the projectile.

In Fig. 2, the end of the projectile from which the coil of line within the projectile passes out into the barrel of the gun, and thence through it to the muzzle end of the gun, is shown as closed with a plug or wad, H, whereby the projectile is made to first pay out the relay of line at the place of discharge of the gun before commencing to pay out the line which is coiled within the projectile.

In lieu of using the chambered projectile, as

herein described, it may be placed in a reverse position within the gun-barrel—that is, with its end D closed by the shouldered plug C toward the breech of the gun-barrel—in which case its open end F would be at the muzzle of the gun, and thus the necessity of the described grooving of the projectile along its length would be obviated; but it is preferred to construct the projectile with the said groove, and to use it as has been particularly described.

The line coiled within the projectile is to be as small in size as is practicable to secure the strength requisite for the work which it has to perform, so as thereby to reduce its weight and secure a greater length of line within a given compass of chamber.

The plug C, to which the end of the line which is within the chambered projectile is fastened, while it has been described and shown as separate from the projectile, may be in one piece of or fastened to the same; but it is preferable to have it separate, as then the line can be the more conveniently fastened to it.

In using this projectile as a harpoon, it will necessarily require the usual lance end of such weapons.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. A projectile for throwing a line, which projectile is chambered for a line to be disposed and secured within its chamber, and is grooved exteriorly along its length, all substantially as and for the purposes specified.

2. The combination, with a projectile for throwing a line, which projectile is chambered for a line to be disposed and secured within its said chamber, and grooved exteriorly along its length, of a wad or plug, H, for closing the end at which the line within the projectile passes out of the same, all substantially as described, for the purposes set forth.

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