(No Model.)

J. EVANS & R. LOW.

GUN AND ITS PROJECTILE FOR THROWING LIFE LINES.

No. 281,041. Patented July 10, 1883.

FIG. 1.



FIG. 2.

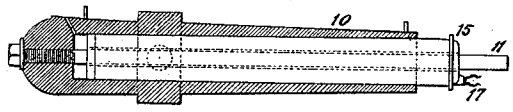


FIG. 3.



FIG. 4.

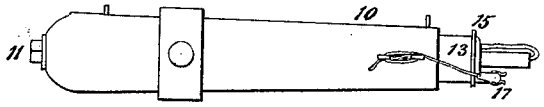


FIG. 5.

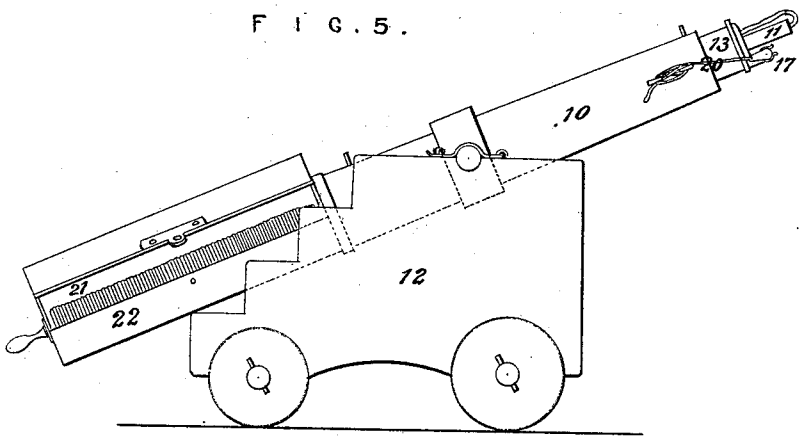


FIG. 6.

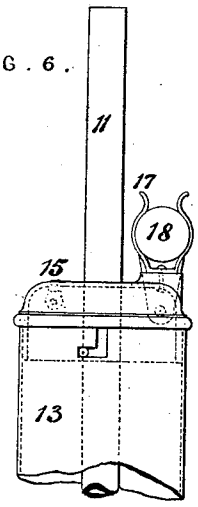


FIG. 7.

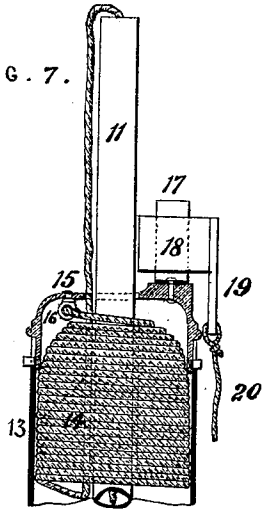
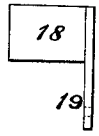


FIG. 8.



FIG. 9.



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UNITED STATES PATENT OFFICE.

JOHN EVANS AND ROBERT LOW, OF DUNDEE, COUNTY OF FORFAR, SCOTLAND.

GUN AND ITS PROJECTILE FOR THROWING LIFE-LINES.

SPECIFICATION forming part of Letters Patent No. 281,041, dated July 10, 1883.

Application filed May 24, 1883. (No model.) Patented in England August 10, 1881, No. 3,460.

To all whom it may concern:

Be it known that we, JOHN EVANS and ROBERT LOW, subjects of the Queen of Great Britain and Ireland, and residing at Dundee, in the county of Forfar, Scotland, have invented certain Improvements in and connected with Guns for Throwing Lines for Saving Life and other Purposes, (for which we obtained a Patent in Great Britain, dated August 10, 1881, No. 3,460,) of which the following is a specification.

Our said invention has for its object the construction or arrangement of a gun and parts in connection therewith, so as to throw a line in a better and more satisfactory manner than has been hitherto effected by apparatus for saving life in cases of shipwreck.

In carrying out our invention the gun or cannon, which is muzzle-loading, has a central tube fixed through its breech end. A portion of the line to be thrown is coiled or wound in the form of a cop, such as is used in a shuttle in weaving, and this cop is placed in a canister, which externally fits the bore of the gun, and which has holes in its ends to pass over the central tube of the gun, the cop being formed with a hollow core, to also pass over the tube. The end of the portion of the line coiled in the canister is attached or bent onto a second portion of line, which passes through the tube, and is continued behind in the form of a coil or cop, which may be in a stationary case or uncovered. There may be two or more stationary cops or coils, the back end of one being attached to the front end of the next in order.

Among the purposes for which our improved apparatus is applicable is the throwing of a line attached to a harpoon or similar instrument for attacking whales. Another important purpose to which it is applicable is the throwing of lines to otherwise inaccessible points in cases of fire.

Figures 1 and 2 on the accompanying sheet of drawings are longitudinal sections of the gun, one as without and the other as with the projectile-canister. Fig. 3 is a section showing the complete cop in place in the canister; and Fig. 4 is a side elevation of the gun having the projectile-canister in place, as when the gun is loaded. Fig. 5 is a side elevation of the gun as mounted on a common gun-carriage, and as ready to be fired. Figs. 6 and 7 are an enlarged side elevation and a section of the front end of the projectile-canister; and Figs. 8 and 9 are enlarged views of a small block for giving light, by which the course of the projectile-canister can be seen at night.

In the drawings the same reference-numerals are used to mark the same or like parts wherever they are repeated.

The gun 10 shown in the drawings is of the common muzzle-loading kind, but has a tube, 11, fixed through its breech end. The tube 11 projects forward beyond the muzzle of the gun, and is open at both ends and completely through it. The gun may be carried or mounted in any convenient way. It is, however, represented as being mounted on a common gun-carriage, 12. When not of large size, it may be mounted on a small-arm stock, to be fired from the shoulder.

A canister or tube, 13, of thin sheet metal, is used as a projectile, and in this canister there is placed a portion of the line to be thrown, this line being wound in the form of a cop, 14. The canister 13 is provided with a cap, 15, fitted so that it can be secured to the front end of the canister by bayonet fastenings; and this cap 15 has fixed to its inside an eye, 16, to which the end of the line at the front end of the cop 14 is attached when preparing the projectile for use. The cap 15 is formed with a central hole to pass over the tube 11 of the gun, and the cop 14 is wound with a hollow core for the same purpose. The end of the line is led from the back end of the cop 14 through the hollow core of the cop, and through the central hole of the front cap 15, and when the canister 13 has been placed in the gun (after first ramming home a suitable annular cartridge and wad) the line is continued through the tube 11 from its front end, and beyond the back end of the tube may be joined to or continued in a stationary cop, 21, in a case, 22, placed at the back end of the gun. A small spring-clip, 17, is fixed to the

cap 15 of the projectile-canister 13, to hold a block, 18, of rocket composition, and this block 18 has attached to it a frictional igniting-tail, 19, which is secured by a cord, 20, to pins provided for the purpose on the gun. When the gun is discharged, the tail 19 is torn off, and causes the ignition of the rocket-block 18, the light from which shows the path of the projectile in the dark.

Our improved gun and apparatus can be used for throwing a line from the shore to a vessel being shipwrecked; but it can be conveniently carried on board ship, and we believe it will be very advantageous for ships to be provided with the apparatus, so as to be able to communicate with any shore where there may not happen to be on shore any apparatus for throwing a line. A ship provided with our apparatus will also be able to throw a line to another vessel at sea—such, for example, as a tug, steamer, or a pilot-boat.

What we claim as our invention in apparatus for throwing lines for saving life and for other purposes is—

A gun made with a central tube and combined with a projectile-canister, and with a hollow-cored cop or coil of line having one end attached to the canister and the other end passed through the central tube to a stationary cop or coil, the parts being arranged and operating substantially as hereinbefore set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN EVANS.
ROBERT LOW.

Witnesses:
WILLIAM STURROCK,
ALEXANDER MILLER.