2 Sheets—Sheet 1.

D. KELLEHER.

Bomb Lance.

No. 201,793. Patented March 26, 1878.

Fig. 1.

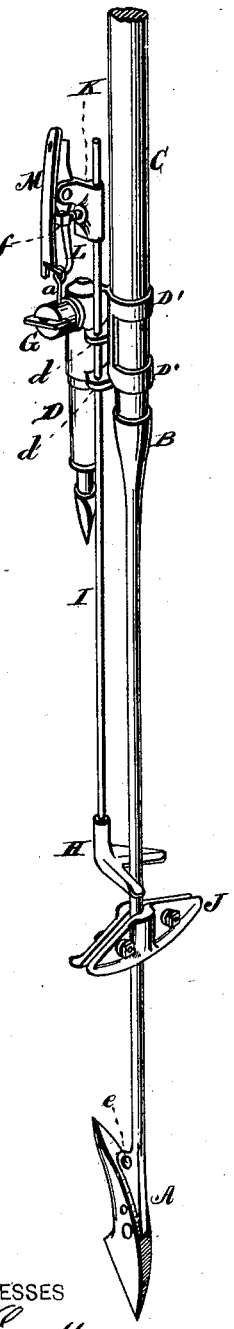
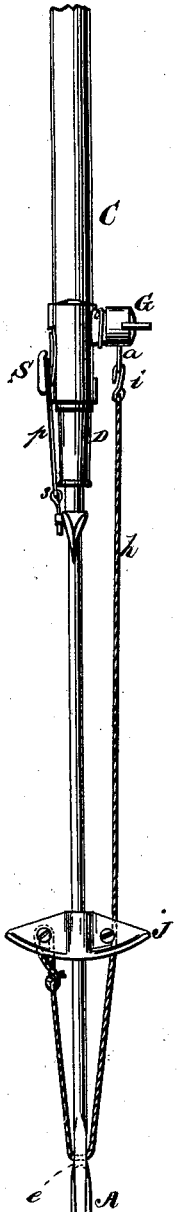


Fig. 2.



WITNESSES

Robert Everett

Jas. J. Sheehy

INVENTOR.

Daniel Kelleher.

Gilmore & Swindler

ATTORNEYS.

2 Sheets—Sheet 2.

D. KELLEHER.

Bomb Lance.

No. 201,793. **Patented March 26, 1878.**

Fig. 3.

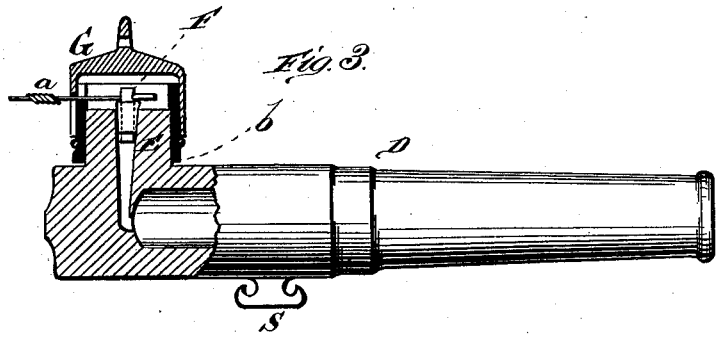


Fig. 4.

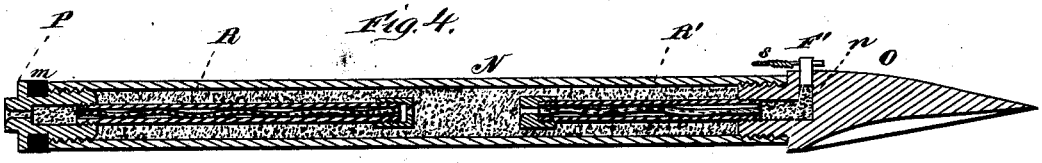


Fig. 5.

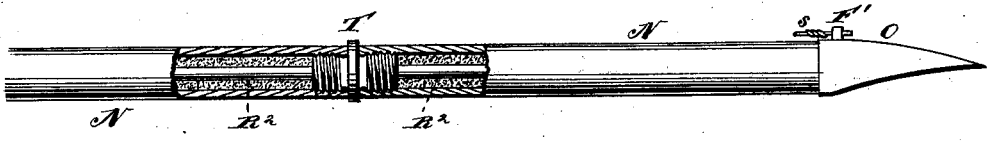
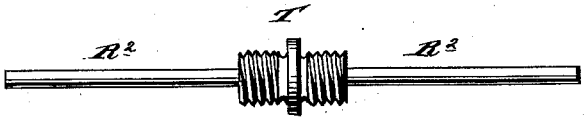


Fig. 6.



WITNESSES

Robt. Ewett,
Jas. J. Sheehy

INVENTOR.

Daniel Kelleher.
Gibbons, Dwight & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

DANIEL KELLEHER, OF NEW BEDFORD, MASSACHUSETTS.

IMPROVEMENT IN BOMB-LANCES.

Specification forming part of Letters Patent No. **201,793**, dated March 26, 1878; application filed February 16, 1878.

To all whom it may concern:

Be it known that I, DANIEL KELLEHER, of New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and valuable Improvement in Combined Gun and Lance; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a perspective view of my combined gun and lance. Fig. 2 is a side view. Fig. 3 is a part-sectional view of the gun. Fig. 4 is a longitudinal vertical section of the bomb. Fig. 5 is a part-sectional side of the bomb, and Fig. 6 is a detail view thereof.

The nature of my invention relates to guns and bomb-lances for killing whales; and it consists in the construction and arrangement of parts, as will be hereinafter more fully set forth.

The annexed drawings, to which reference is made, fully illustrate my invention.

A represents the head, and B the shank, of an ordinary harpoon, secured to the handle C.

D represents the gun, of suitable construction, provided with bands D′ D′, through which the handle C passes. At the breech, on one side of the gun D, is a boss, E, with a central aperture into the bore of the gun, through which is inserted an ordinary primer, F, such as is used for cannon-firing. The boss E is surrounded by a rubber tube or packing, *b*, which projects beyond the end of the boss. A cap, G, is placed over the boss and packing, said cap fitting tightly, so that the packing will prevent any water from entering at this point. The wire or wire loop *a* from the primer F projects rearward through a slit in the packing and cap, as shown.

In the metal that forms the connection between the gun D and bands D′ D′ are perforated ears or projections *d d*, through which is passed a rod, I, having a forked head-piece, H, which fits on the shank B of the harpoon—that is to say, said shank lies in the fork of the head-piece H. On the shank B is placed a sliding clamp, J, as shown.

The rear end of the rod I is provided with a tubular casting, K, which is adjustable upon the rod, and fastened at any desired point thereon by means of a set-screw, *f*. On the casting K, between suitable ears formed thereon, is pivoted a hook, L, provided with a spring-catch, M. When the harpoon is to be thrown, this hook L is hooked into the loop *a* of the primer F, and the latch M put in place in the end of the hook, so that the hook cannot become disengaged. Now, as the harpoon enters the whale, the sliding clamp J comes in contact with the side of the whale and moves backward on the shank B, and as it comes in contact with the head-piece H it moves the rod I also backward, whereby the primer F is exploded, and the charge in the gun D is, of course, also exploded, shooting the bomb-lance into the whale.

Instead of the rod I and the devices attached thereto, I may use a wire cord, *h*, one end of which is fastened in the sliding clamp J, then passing outward through an aperture, *e*, in the harpoon-head A, and then backward, with a hook, *i*, in its other end, connected in the loop *a* of the primer. In this case the said loop *a* must project forward from the boss E, instead of in the rear. It will readily be seen that the primer will be exploded by the backward movement of the sliding clamp J as it strikes the side of the whale. In either case I can easily regulate the distance the harpoon-head must penetrate before the bomb-lance is shot off—when the rod I is used, by simply changing the position of the casting K; or, when the wire cord *h* is used, this is accomplished by changing the length of said cord.

The bomb-lance used is composed of the cylindrical bomb N and head O, the latter being screwed tightly in the outer end of the bomb. The inner end of the bomb N is provided with a screw-plug, P, provided with packing or wads *m*, to make the bomb tight in the gun. This plug is also provided with a fuse-tube, R, containing a fuse, and opening through the plug, so that when the charge of the gun is exploded said fuse will be ignited, and convey the fire to, or nearly to, the center of the bomb.

Within the head O of the bomb-lance is formed a chamber, *n*, which contains powder

to ignite a fuse contained in a fuse-tube, R′, extending from the base of said head to, or nearly to, the center of the bomb N. In the side of the head O is an aperture for the insertion of a primer, F′, which is made water-tight by means of rubber, solder, or other suitable means; and in the ring or loop *s* of this primer F′ is attached a wire, *p*, which is carried back and wrapped around a projection, S, on the side of the gun, thus holding the bomb-lance in the gun.

When the harpoon is thrown and the charge in the gun exploded, as above described, the bomb-lance is shot off from the gun, which breaks the primer F′ in the head O, and thus both the fuses in the tubes R R^1 are ignited to insure the explosion of the charge in the bomb, even should either one of the fuses fail to work properly.

In some cases I may make the bomb in sections, and couple them together with double screw-plugs T, having fuse-tubes R^2 extending in both directions, so that the different sections of the bomb will be exploded at suitable intervals within the whale.

The bomb constructed as described may be used equally as well with a shoulder-gun, and also with a hand-lance, if desired.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a gun for shooting a bomb-lance, the perforated boss E, formed on the side of the gun, the primer F, rubber packing or tube *b*, and the cap G, substantially as and for the purposes herein set forth.

2. The combination, with the harpoon A B, of the sliding clamp J, connected to the primer F, for exploding the same, in the manner as hereinbefore set forth.

3. The combination of the sliding rod I with head-piece H, the adjustable casting K, hook L, and latch M, substantially as and for the purposes herein set forth.

4. The combination, with a gun, D, of the bomb N, head O, having interior chamber *n*, and fuse-tube R^1, the primer F′, wire *p*, and projection S on the side of the gun, substantially as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

DANIEL KELLEHER.

Witnesses:
JOHN F. BLACKMAR,
JAMES J. SHEEHY.