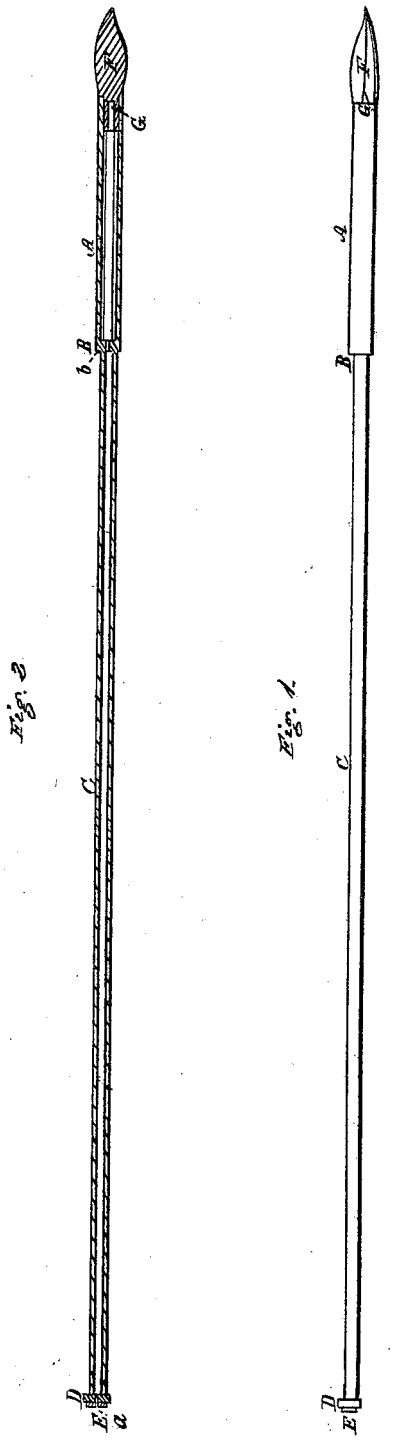
O. ALLEN.

Bomb-Lance.

No. 4,764.

Patented September 19, 1846.



UNITED STATES PATENT OFFICE.

OLIVER ALLEN, OF NORWICH, CONNECTICUT.

IMPROVEMENT IN WHALING-LANCES.

Specification forming part of Letters Patent No. **4,764**, dated September 19, 1846.

To all whom it may concern:

Be it known that I, OLIVER ALLEN, of Norwich, in the county of New London and State of Connecticut, have invented a new and useful Projectile for Killing Whales or other Fish, or for other purposes to which it may be applicable, the same being termed by me a "bomb-lance;" and I do hereby declare that my said invention is fully described and represented in the following specification and accompanying drawings, letters, figures, and references thereof.

Of said drawings, Figure 1 denotes an external view of my said bomb-lance, and Fig. 2 is a central and longitudinal section of it.

A, Figs. 1 and 2, represents a metallic tube or barrel, about one foot in length and three-quarters of an inch in diameter, closed at one end and opened at its opposite end. It has a long tube, C, about one-half an inch in diameter, affixed to its end B, and extending back from it, and with its axis in the prolongation of that of the tube A, as seen in the drawings.

The rear end of the tube C terminates in a small cylinder or button, D, of larger diameter than that of the tube C. The extreme rear end of the tube C is closed by a screw or plug, E, through the axis of which a small vent-hole, *a*, is bored. Another and similar vent-hole, *b*, is bored through the breech B of the barrel A, as seen in Fig. 2. To the end of the barrel A a lance point or head, F, is affixed by means of a tenon-tube, G, applied to the lance-head, and so as to fit closely in the tube A when inserted therein. This lance-head may be screwed to the barrel; but I prefer it should be attached by a close-fitting tube, G′, for reasons which will be hereinafter apparent.

The tube or barrel A is to be filled or charged with gunpowder or any other proper explosive compound, while the tube C, which may be considered as a priming or fuse tube, is to be filled with gunpowder or fuse-powder; all of which being done, the screw E and lance-head F are to be inserted in their places. The instrument is thus complete and ready for use. When used the tube C is to be inserted in the barrel of a gun, and so far as to bring the screw E in contact with the charge of powder previously put in the gun. Twine or other proper material may be wound around the tube C in order to make it fit the gun-barrel without sliding out, and to such degree as may be necessary to enable the charge of the gun when fired to act with an expansive force requisite to discharge the bomb-lance from the barrel and into the whale or other object against which it may be directed.

The lance-head F, on being thus thrown in contact with a whale, will enter his body and open a path therein for the admission of the bomb or barrel A. The explosion of the charge of the gun will set fire to the fuse-powder of the tube C by passing through the hole *a*, which hole should be of such size as to allow the fuse-powder to burn and fuse through it without bursting the priming-tube C. As soon as the said fuse-powder has been burned down to the breech of the bomb the fire enters or passes through the vent-hole *b* of the breech B, and explodes the charge of the bomb, and by so doing not only bursts the bomb into fragments, but impels the lance-head forward with great force either through or far into the body of the whale.

The lance-head should be made of a size just sufficient to cut an aperture in the whale large enough to admit the introduction of the bomb.

The aforesaid projectile is simple in its construction and requires nothing but common gunpowder for its charge, as the great length of the priming-tube C causes the powder therein to burn with sufficient slowness to insure the entry and bursting of the bomb within the whale. The jet of flame issuing from the end of the fuse-tube will effectually prevent the admission of any water into it, even if the whole instrument is carried under water by the whale or by any other means.

So far as I have been able to experiment with it, I am warranted in the conclusion that it will prove a highly efficient and useful article to be used in the whale-fishery.

Having thus described my invention, I shall claim—

The lance-head, the cylindrical barrel or bomb, and the priming-tube, in combination with one another, and arranged and operating together substantially as above set forth.

In testimony whereof I have hereto set my signature this 2d day June, A. D. 1846.

OLIVER ALLEN.

Witnesses:

JOHN D. PARK,

EB. LEARNED, Jr.