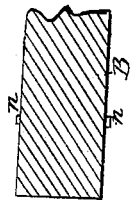
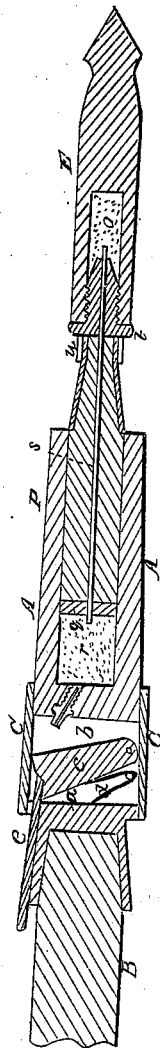


Bomb Lance.

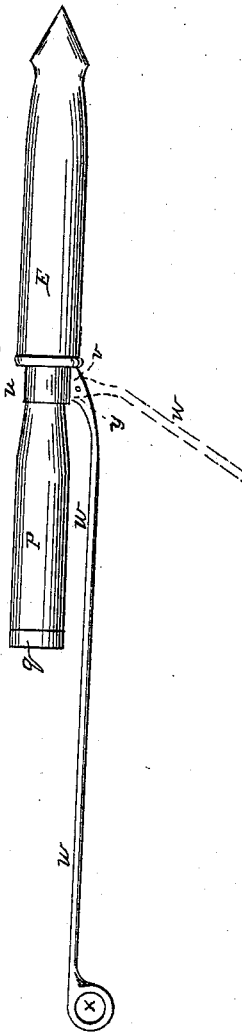
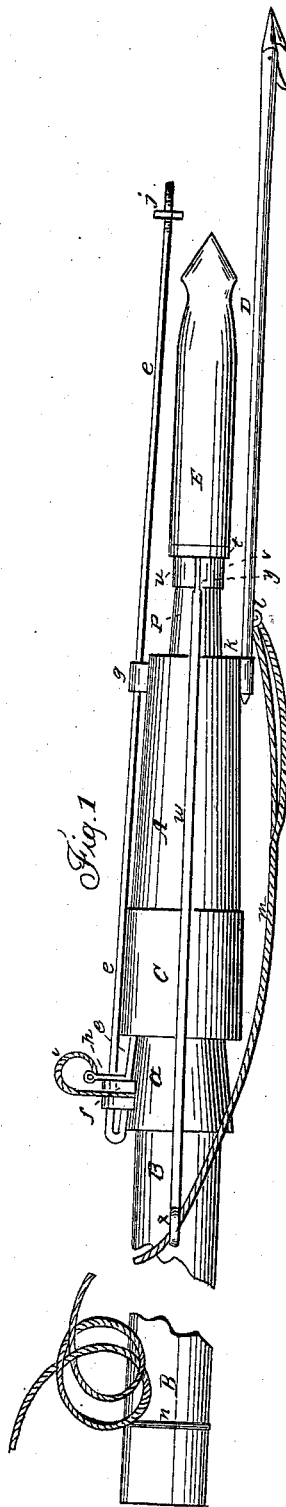
No. 49,548.

Patented Aug. 22, 1865.



Witnesses.

W B Tschernach
N W Stearns



Inventor.

Cheney Pierce

UNITED STATES PATENT OFFICE.

EBENEZER PIERCE, OF HALLOWELL, MAINE.

IMPROVEMENT IN BOMB-LANCES FOR KILLING WHALES.

Specification forming part of Letters Patent No. 49,548, dated August 22, 1865.

To all whom it may concern:

Be it known that I, EBENEZER PIERCE, of Hallowell, in the county of Kennebec and State of Maine, have invented a new and Improved Apparatus for Killing Whales, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan of my improved apparatus, the parts being represented in the position they occupy when ready for use. Fig. 2 is a central longitudinal section through the same. Fig. 3 is a plan of the bomb-lance detached.

The object of my invention is to produce a weapon with which I am enabled to fasten two irons to and kill or capture a whale at one operation; and my invention consists in an apparatus containing a harpoon and bomb-lance combined, which may be thrown by hand into the whale with ease and perfect safety, the bomb, after the harpoon has entered, being driven into the whale and exploding with sufficient violence to kill or severely wound him, whereby he may be secured without difficulty.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the accompanying drawings, A represents a gun, the rear end of which terminates in a conical socket, *a*, into which is fitted the staff or handle B. *b* is a vertical slot cut through the breech of the gun for the reception of the hammer *c*, which is pivoted therein, and is retained in its firing position against the resistance of the mainspring *d* by a sliding rod, *e*, which passes through a hole in the back of the breech-plate.

C is a sleeve, of metal or other suitable material, which slides over the opening formed by the slot *b*, and fits the breech so snugly as to render it impossible for the water to enter.

The rod *e* moves freely back and forth in guides *f g* projecting from the side of the front and the rear of the gun, and a small pin, *h*, attached to a cord, *i*, passes through the rod *e* and bears against the front of the guide *f*, thus preventing the hammer *c* from being accidentally released.

The forward end of the rod *e* is provided

with a screw-thread, on which turns a button, *j*, which, on coming in contact with the whale, forces the rod *e* back, the pin *h* being previously withdrawn from it to allow of this movement.

D is an iron or harpoon of the required pattern, its inner end fitting into a socket-piece, *k*, projecting from the side of the gun A, and this iron is provided with an eye, *l*, through which is rove one end of the line *m*, the other end of which is secured to the boat. A few fathoms of the line *m* is left slack, as seen in Fig. 1, and is stopped by a spun yarn, *n*, near the upper end of the staff B, whereby the liability of the iron being retarded in its flight to the whale is avoided, the yarn *n* being broken when the slack portion is taken up.

E is a bomb-lance, which is bored out, as shown in Fig. 2, so as to form a cavity for the reception of a charge, *o*, of powder, and has a screw-thread cut within it to receive a corresponding screw-thread on the iron point of the staff *p*. This staff *p* is made of wood or other suitable material, and its rear end is covered with a metal cap, *q*, to prevent its being shattered by the explosion of the charge *r* contained in the gun A. Through the whole length, and passing through the center of the staff *p*, is laid a fuse, *s*, which is ignited by the explosion of the charge *r* in the gun A, and this fuse is so timed as to burn down to and ignite the charge *o* in the bomb and cause it to explode with violence within the whale at the desired moment.

On the point of the staff *p* is formed the shoulder *t*, against which, and surrounding the staff *p*, is fitted the strap *u*, to a projecting part of which is pivoted, at *v*, the rod *w*, the farther end of which is provided with an eye, *x*, through which is led the line *m*, secured to the harpoon.

A small wooden pin, *y*, Fig. 3, passes through the projecting portion of the strap *u* into the rod *w*, so as to keep it in a proper direction for regulating the flight of the bomb-lance, this pin being broken when the bomb bursts, thus allowing the rod to swing around into a position similar to that indicated by the red lines in Fig. 3, where it serves as an additional means of fastening to the whale.

Instead of one rod, *w*, attached to the staff

of the bomb, two rods may be used, if preferred.

Operation: The gun A and bomb-lance E having been properly charged, the latter with its fuse *s* is placed within the former, and the hammer *c* having been cocked and held in its firing position by the sliding rod *e*, the sleeve B is fitted over the aperture *b*, made in the breech, and the pin *h* removed, when the instrument is ready for use. On being thrown, the harpoon or iron D enters the whale until the button *j* on the rod *e* comes in contact with him, when it slides back in the guides *f g* and withdraws the end of the bent arm of the rod *e* from off the hammer *c*, thus releasing it and discharging the piece, when the bomb-lance is driven forcibly into the whale, the ignited fuse soon causing the bomb to burst with violence, thereby seriously injuring or killing the whale. The bomb-lance, being shattered by the discharge, becomes detached from the staff and the pin *y* broken, so as to allow the rod *w* to draw upon the staff, as shown in red, Fig. 3, and by this means I am enabled to fasten two irons to the whale at one operation, and effect his capture with a greater degree of certainty than has heretofore been attained.

Instead of a lance being used in connection with the bomb, a harpoon or other iron may be substituted therefor, it being screwed into or otherwise secured to the head of the bomb E. If desired, the iron D may be removed from its socket *k* in the gun A, and only the bomb E, with a lance or an iron of different form, be employed.

It is evident that instead of the gun being provided with a lock, as above described, it may be discharged by a fuse leading up along the staff B, the fuse being ignited by the operator just before the instrument is thrown.

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

1. An apparatus for fastening two irons to a whale at one operation, consisting of the bomb-lance E, in combination with a harpoon or other iron, D, operating substantially as set forth.

2. A rod or rods, *w*, in combination with the staff *p* of the bomb, operating in the manner and for the purpose set forth.

EBENEZER PIERCE.

Witnesses:

P. E. TESCHEMACHER,
N. W. STEARNS.