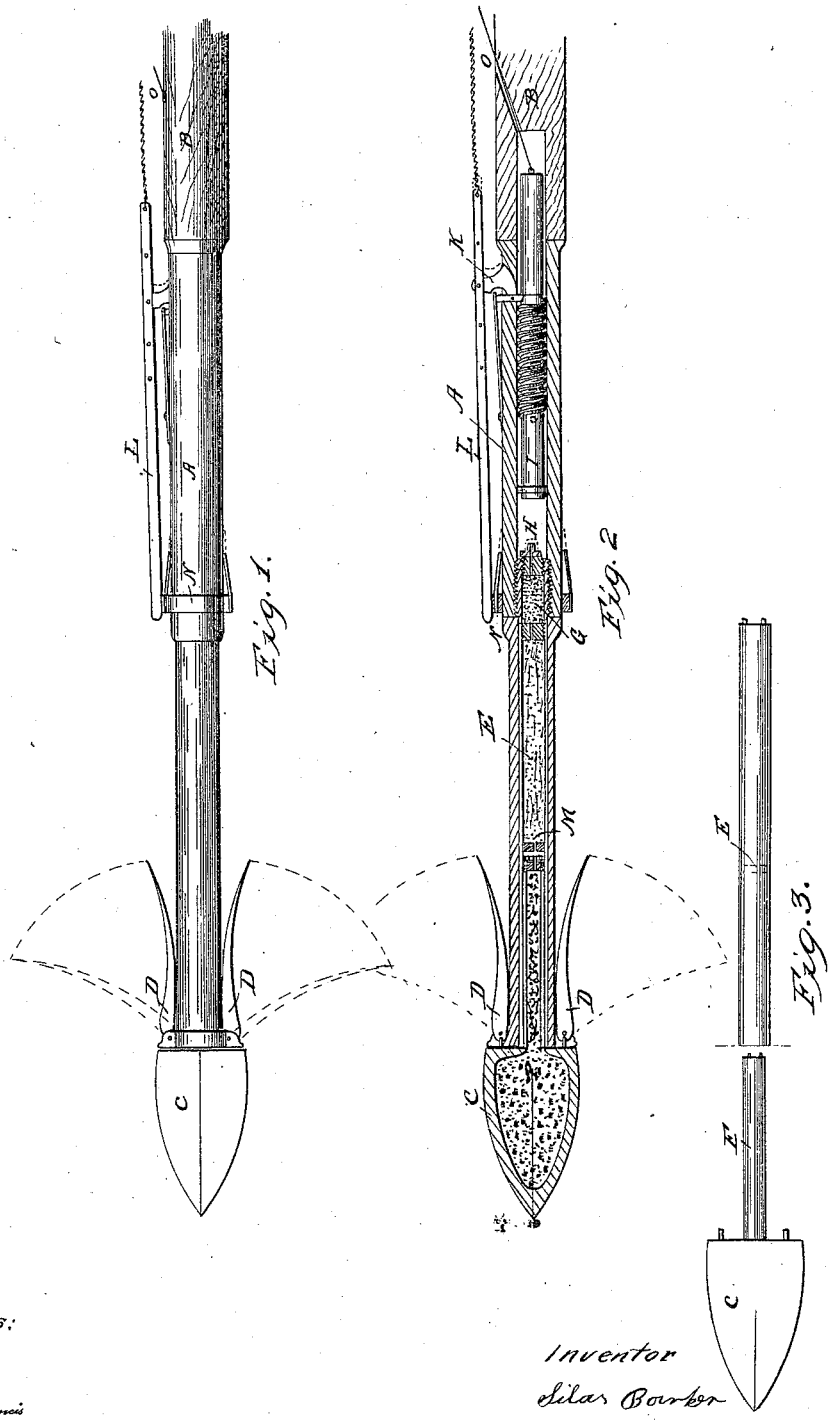
S. BARKER.

BOMB LANCE FOR KILLING WHALES.

No. 46,437. Patented Feb. 21, 1865.

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# UNITED STATES PATENT OFFICE.

SILAS BARKER, OF HARTFORD, CONNECTICUT.

## IMPROVEMENT IN BOMB-LANCES FOR KILLING WHALES.

Specification forming part of Letters Patent No. **46,437**, dated February 21, 1865.

*To all whom it may concern:*

Be it known that I, SILAS BARKER, of the city of Hartford, county of Hartford, and State of Connecticut, have invented new and useful Improvements in the Mode of Constructing Harpoons; and I do hereby declare that the following is a correct description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the application and arrangement of a cylindrical shaft and attachments with an adjustable hollow and explosive lance-head to a harpoon.

To enable others skilled in the art to make and use my invention, I will proceed to describe the construction and operation.

Referring to the drawings, Figure 1 is a side view of the harpoon. Fig. 2 is a longitudinal section, showing the cylinder, tubes, lance-head, &c., when prepared for operation; Fig. 3, a view of the hollow exploding lance-head C and stem F and tube E as they appear before being placed in the cylinder A for action.

Letter A is the hollow iron shaft of the harpoon; B, part of the wooden handle; C, the hollow exploding or bomb-lance head; D, expanding flukes; E, exploding-tube; F, fuse-stem; G, the charge of powder; H, nipple and detonating-cap; I, trigger, catch, and spring; K, detonating-hammer and main-spring; L, discharging-rod, and N ring.

I construct the shaft A of hollow metal in two lengths, screwed together about the middle, or where they form the breech and chamber for the charge of powder G. The back part of the tube contains the hammer, spring, and other attachments necessary for exploding the charge of powder G.

The tube E, Fig. 3, is a hollow metal cylinder of suitable size and length to fit in the barrel of the shaft A, as shown in Fig. 2. This cylinder E contains a charge of powder up to the division M, which will be ignited by the explosion of the charge of powder G, shooting the same forward into the body of the whale with the lance-head C and fuse-stem F. The fuse in the stem ignites and burns up to the charge P in the lance-head, which, being filled with powder and sharp angular pieces of steel, explodes and acts the same as a bomb, and the effect upon the interior of a whale may be imagined but not described.

When the lance penetrates the whale the concussion caused by the resistance of the skin against the ring N and the end of the discharging-rod L operates upon the trigger K, causing the spring-hammer I to strike upon the detonating-cap H and ignite the charge of powder G, forcing the cylinder E and lance-head C and stem F forward into the body of the whale, where the fuse F burns and the lance-head explodes like a bomb, as before stated. At the same time the flukes D of the shaft A expand and hold on to the whale, although the lance-head and attachments are gone from the shaft A.

The discharging-rod L and ring and springs N are made of thin metal and placed edgewise, so that in shooting forward and entering the water they will offer but a slight resistance, and not sufficient to act on the trigger till the resistance is received from the solid check of the skin of the whale.

If the harpoon does not penetrate into the body of the whale a sufficient distance to operate on the ring N, a small cord is attached to the discharging-rod L, so that it can be operated on by the man that throws the lance.

A wire is attached to the hammer I and passes through a portion of the wooden handle of the shaft B at O. This is to be used by the hand to draw back the hammer K to cock and prepare the same for action.

A slot is made in the iron shaft or barrel near the breech to allow for placing on the detonating-cap, and the space will be covered by a rubber ring or other water-tight device.

The utility of this improved lance is in compactness and the powerful action as a hand-harpoon.

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

1. The arrangement of the mode of separation of the lance-head C and fuse-tube F from the shaft of the lance, substantially as described.

2. The arrangement of the adjustable hollow exploding lance-head C, in the manner and for the purpose substantially as herein set forth and described.

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