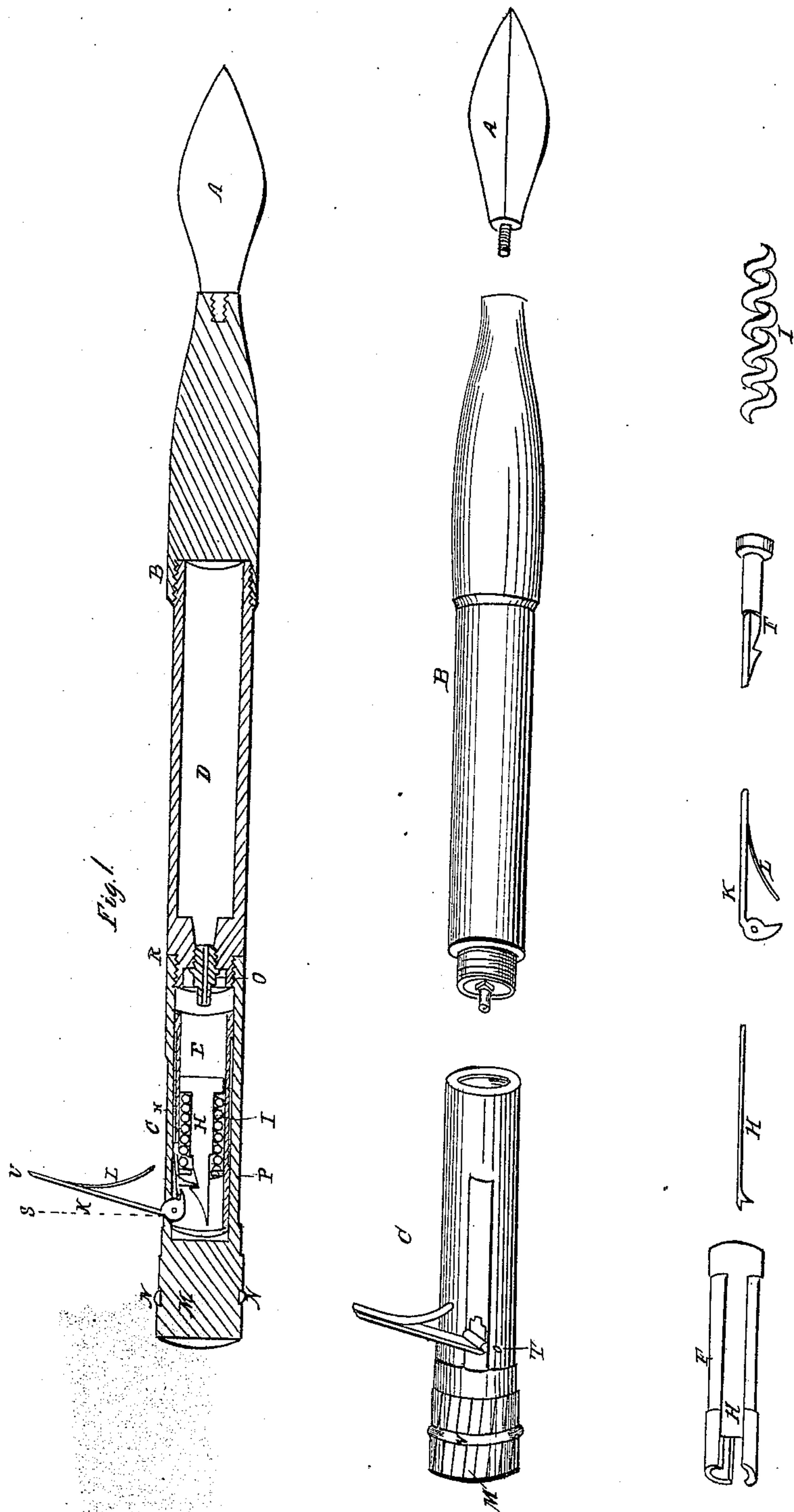


GRUDCHOS & EGGERS.

Bomb Lance.

No. 17,370.

Patented May 26, 1857.



# UNITED STATES PATENT OFFICE.

JULIUS GRUDCHOS AND SELMAR EGGERS, OF NEW BEDFORD, MASS.

## IMPROVED BOMB-LANCE.

Specification forming part of Letters Patent No. **17,370**, dated May 26, 1857.

*To all whom it may concern:*

Be it known that we, JULIUS GRUDCHOS and SELMAR EGGERS, of New Bedford, county of Bristol, and State of Massachusetts, have jointly invented a new and useful Improved Bomb-Lance for Killing Whales; and we do hereby declare that the following is a full and exact description thereof.

A is the blade; B, section of lance for powder; C, section of lance for machinery; D, chamber for powder; E, tube holding sear-spring, mainspring, and hammer; F, hammer; H, sear-spring; I, mainspring; K, trigger; L, trigger-spring; M, ball grooved to fit grooved rifle; N, groove around ball, containing oiled yarn for wadding and cleaning rifle; O, tube for cap; P, partition in tube E, with mortise through it; T, pivot upon which the trigger K turns, and it passes through the tube E holding it.

The improved bomb-lance is to be used with a grooved rifle. The lance does not require to be charged at the time it is manufactured, but can be charged in the boat, or when most convenient.

To use the lance, unscrew the lance at R. To fill powder-chamber D, unscrew the tube O and insert a small tunnel to conduct the powder. The powder is not to be rammed. Re-

place the tube O and cap it. Press the hammer F through mortise in P till it is confined by sear-spring H. Screw the sections B and C together. To place the lance in the rifle, draw the spring L back against K, press K down upon C, when the lance will slide down the rifle. When the rifle is discharged the trigger-spring L throws the trigger back to U, Figure 1. The lance, entering the whale, carries the trigger K back to S, lifting the sear-spring H, when the mainspring I drives the hammer F against the cap on the tube O, causing to it explode.

We claim—

1. The arranging the tube O for the purpose above described.

2. The arranging the trigger K, the trigger-spring L, the sear-spring H, the mainspring I, the hammer F, the tube E, in the manner and for the purpose above described.

3. Applying the grooved ball M for the purpose of giving the lance a rotary motion to prevent it striking sidewise.

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Witnesses:

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