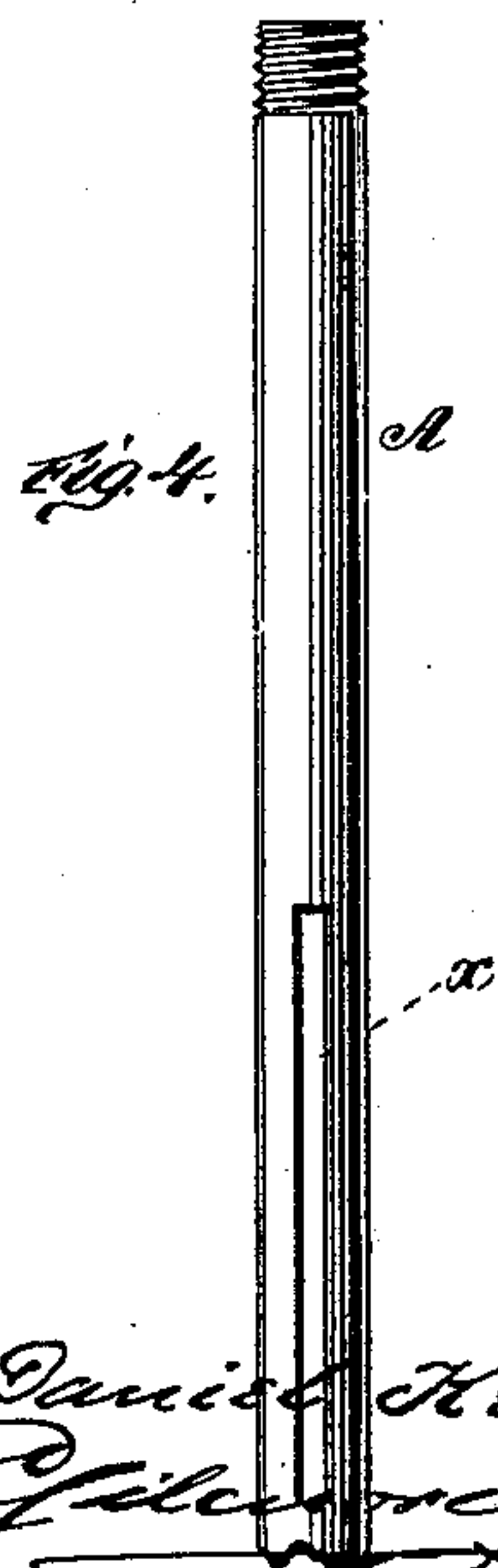
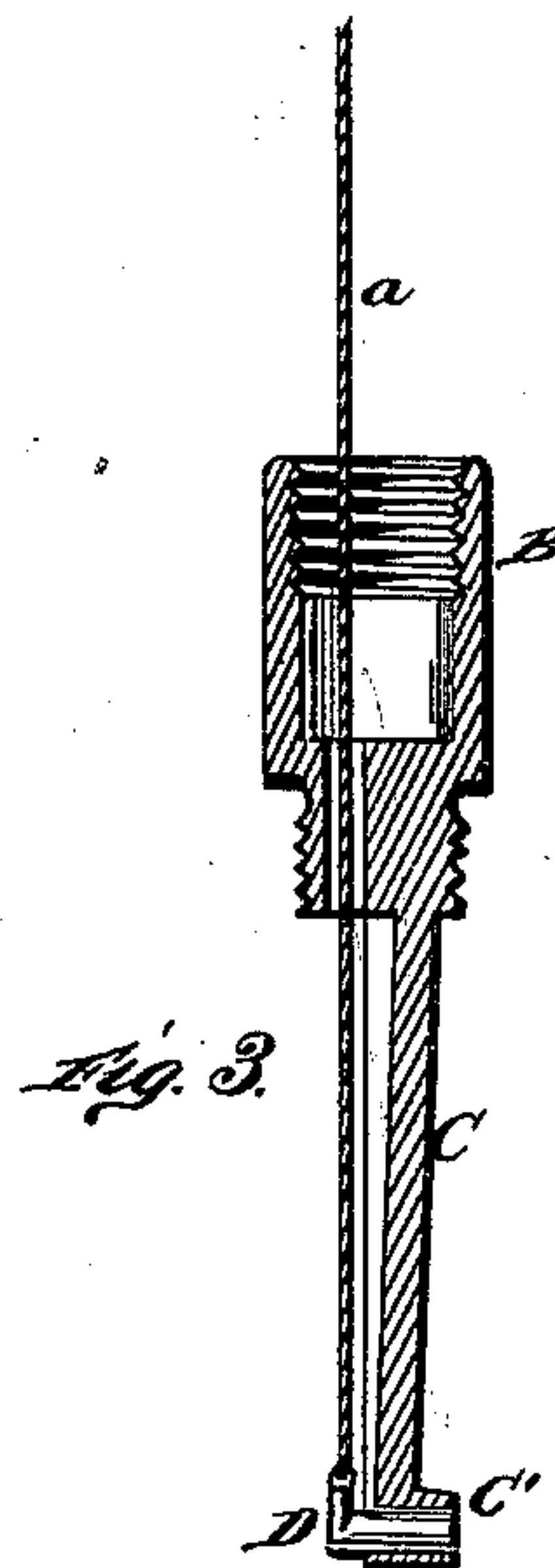
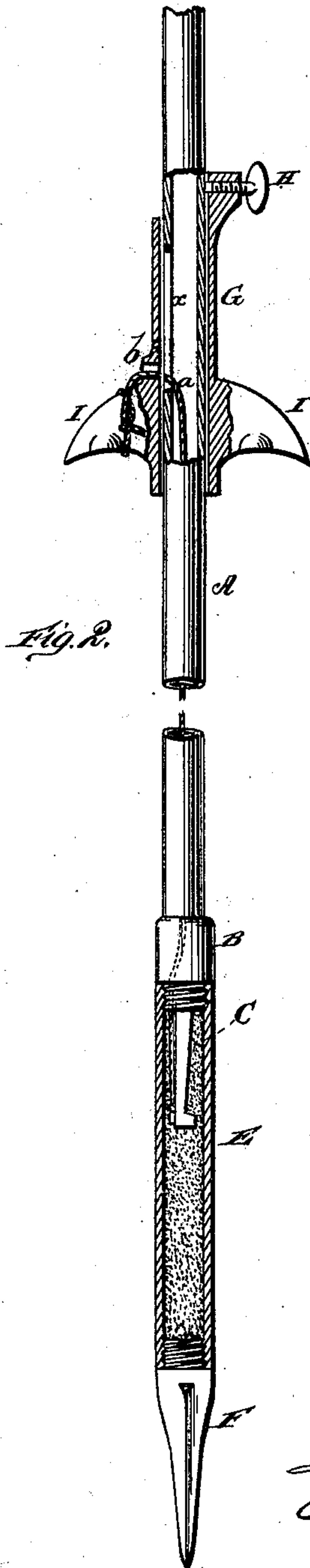
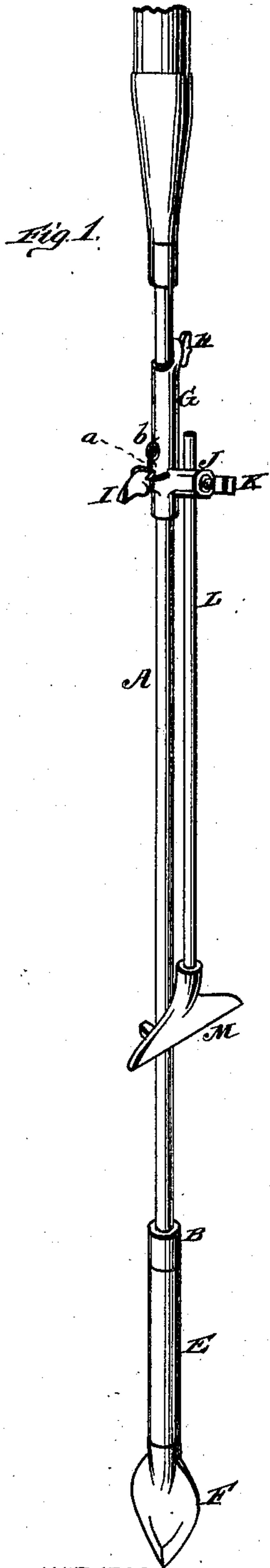


D. KELLEHER.
Bomb Lance.

No. 201,794.

Patented March 26, 1878.



WITNESSES
Robert Everett
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UNITED STATES PATENT OFFICE.

DANIEL KELLEHER, OF NEW BEDFORD, MASSACHUSETTS.

IMPROVEMENT IN BOMB-LANCES.

Specification forming part of Letters Patent No. **201,794**, 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 Hand Bomb-Lances; 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 representation of a perspective view of my bomb-lance for killing whales. Fig. 2 is a vertical section. Fig. 3 is a sectional detail. Fig. 4 is a detail thereof.

The nature of my invention consists in the construction and arrangement of a bomb-lance for killing whales, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

A represents a hollow rod, of any suitable dimensions, to be attached at one end to the usual handle for throwing the lance. At the other end the hollow rod A is provided with a screw-cap, B, from the outer end of which projects an arm, C, having at its extreme end a perforated head, C', for the insertion of a fulminate primer, D, of substantially the form and kind used in ordinary cannon-firing.

E represents the cylindrical bomb, also of any suitable dimensions, and provided with interior screw-threads at both ends. One end of this bomb is passed over the arm C and screwed on the end of the cap B, so as to form a tight joint, and the head C', with the primer, projects into the bomb a suitable distance. In the outer end of the bomb E is screwed the spear F.

From the primer D extends a wire or wire cord, *a*, through a hole in the cap B into and through the hollow rod A. In the side of this hollow rod A is a slot, *x*, through which said wire or cord *a* is passed out. Over the rod A is passed a movable sleeve or tube, G, which is adjusted and held at any desired point on the rod by means of a set-screw, H, when the

lance is not in use. The sleeve G is further provided with wings I I, projecting from its sides, and it has also a hole or aperture, *b*, in one side, just below one of said wings.

The cord or wire *a*, which connects with the primer D, is passed, as described, through the rod A, and then through the slot *x* in said rod, and through the hole *b* in the sleeve, and the end thereof then wrapped around one of the wings I in any suitable manner, so as not to slip thereon.

It will readily be seen that any backward movement of the sleeve G will pull on the cord or wire *a* sufficient to explode the primer. To prevent any accidental explosion, the sleeve is fastened on the rod by means of the set-screw H, which prevents any movement of the sleeve.

From the side of the sleeve G projects a lug, J, through which is passed a rod, L, and this rod is held in said lug by means of a set-screw, K. On the outer end of the rod L is secured a head, M, as shown.

The operation is as follows: The primer D being inserted in the head C', and connected, as described, by the wire or cord *a* with the sleeve G, the bomb E is screwed in place on the cap B, and the bomb is then filled from the outer end with powder, and then the spear F is screwed on the end of the bomb, completing the lance.

When the lance is to be thrown, the screw H is first loosened. As the lance, after being thrown, enters the whale, the head M, having been set at right angles to the spear, strikes the sides of the whale, and as it, from its position, cannot pass in through the hole made by the spear, it will move backward, carrying the sleeve G with it, which, as already stated, explodes the primer, and thereby at once explodes the charge and bursts the bomb inside the whale.

The distance inward at which the bomb is to be bursted in the whale can easily be regulated by means of the head M, rod L, and set-screw K.

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

1. The combination of the hollow rod A,

with slot *x*, the cap B, with arm C, having head C', the bomb E, spear F, primer D, with wire or cord *a*, and the sleeve G, with wings I I and aperture *b*, all substantially as and for the purposes herein set forth.

2. In combination with the sleeve G, connected, as described, with the primer for exploding the charge in the bomb E, the adjustable rod L, with head M, for the purposes herein 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.