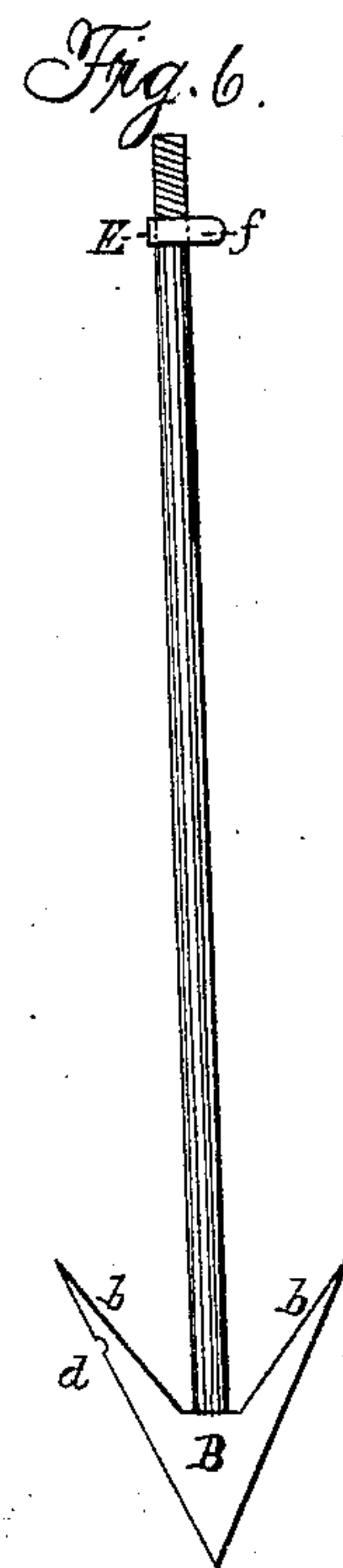
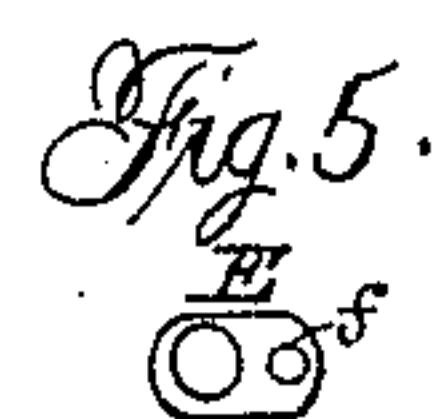
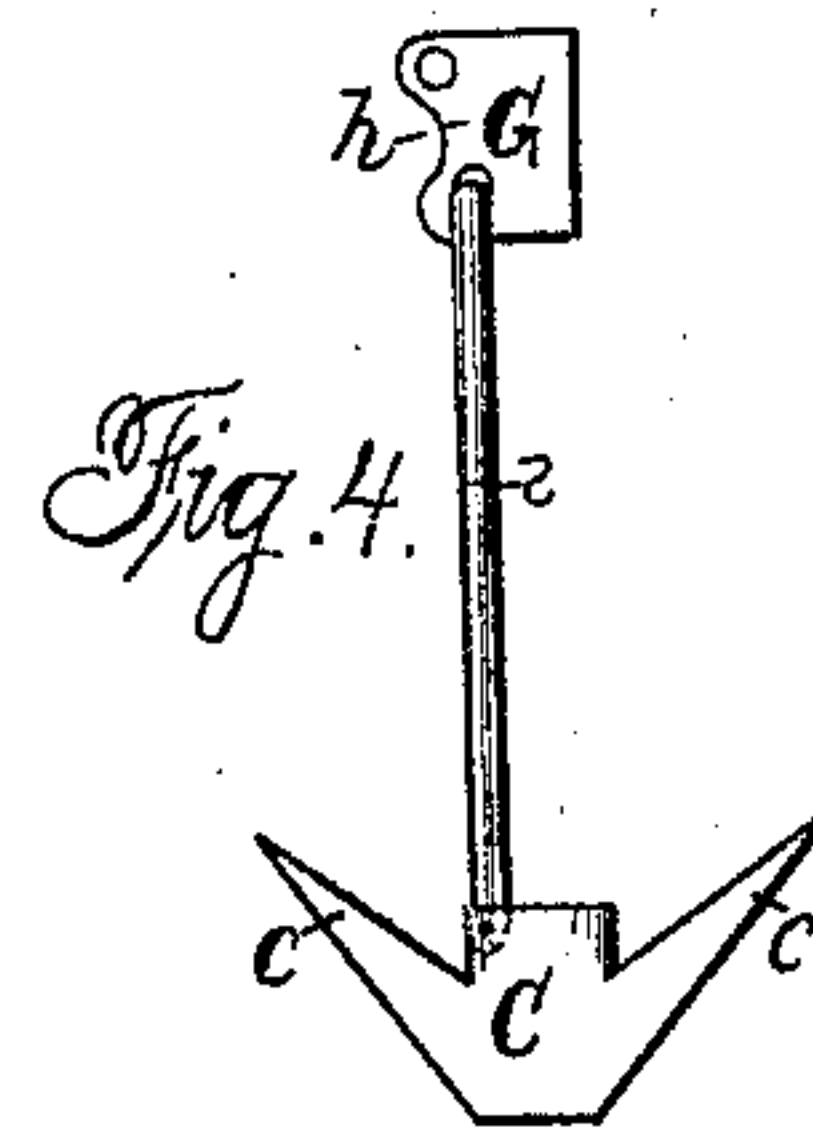
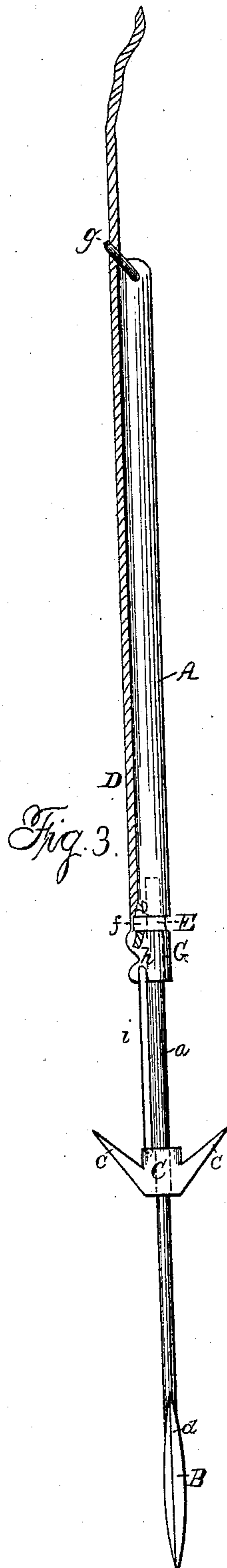
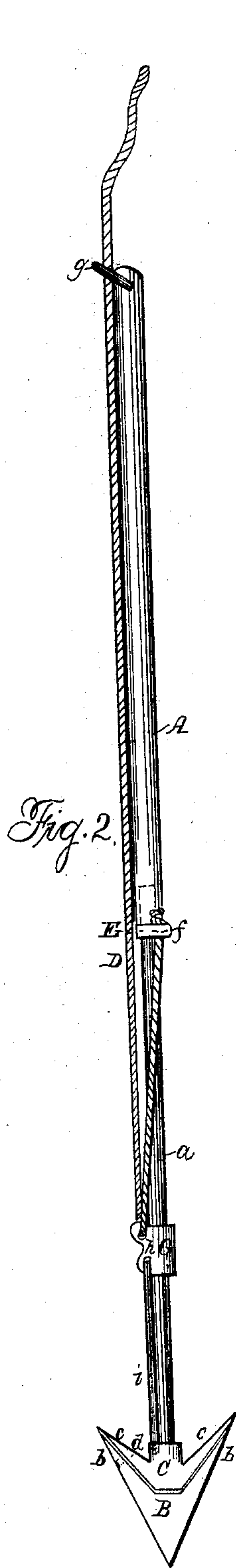
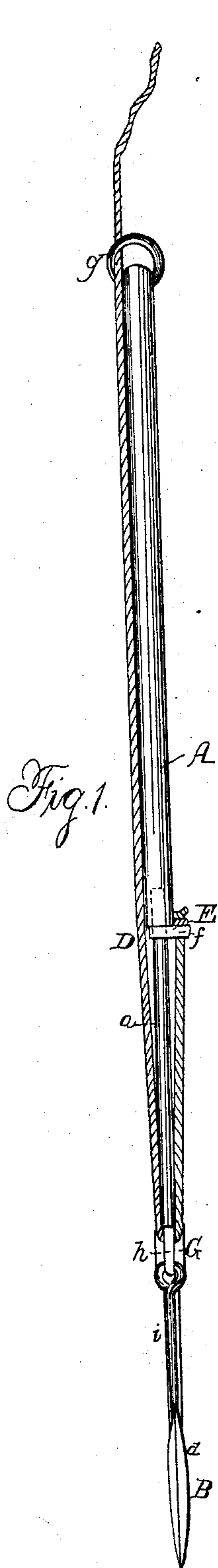


J. Q. KELLY.

Bomb Lance.

No. 18,458

Patented Oct. 20, 1857.



# UNITED STATES PATENT OFFICE.

JAMES Q. KELLY, OF SAG HARBOR, NEW YORK.

## IMPROVEMENT IN HARPOONS.

Specification forming part of Letters Patent No. 18,458, dated October 20, 1857.

*To all whom it may concern:*

Be it known that I, JAMES Q. KELLY, of Sag Harbor, in the county of Suffolk and State of New York, have invented a new and Improved Harpoon; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a view of the harpoon looking toward the barbs of the point edgewise; Fig. 2, a view thereof showing the barbs side-wise; Fig. 3, a view showing the position of the parts of the harpoon when thrust to its farthest extent into the body of the whale; Figs. 4, 5, and 6, views of parts detached.

Like letters designate corresponding parts in all the figures.

The shaft or handle A is provided with a rod, *a*, of the desired length, which terminates in a barbed point, B, of ordinary construction. An eye, E, is rigidly fastened to the handle A, into which is secured one end of a rope, D. Upon the rod *a* is placed a sliding socket, C, which is provided with barbs or flukes *c c*, corresponding with those on the point B, or such that they will be covered by the barbs *b b* when brought close behind them.

To keep the barbs *b b* and flukes *c c* together while throwing the harpoon, a small wooden pin, *d*, or its equivalent, is inserted through holes in one of the barbs *b b* and flukes *c c*. This pin is sufficient to hold the parts together in the act of throwing the harpoon, but will be broken by a moderate force.

A rod, *i*, a few inches in length, is attached by a pivot to the rear of the sliding socket C, and connects it with a projection, *h*, on one side of a slide, G, which moves freely on the rod *a*.

The line D, by which the harpoon is held, passes from the eye E, at *f*, at an angle on the harpoon, say, of ninety degrees (more or less) to the projection *h* on the slide G, where it passes freely through an eye in said projection, and thence extends along the handle through a ring, *g*, in the upper end thereof, whence it is secured in the whale-boat in the usual manner. In this way the twisting action of the rope, as the whale draws upon it, causes the harpoon

to turn gradually in the socket and slide C and G till, when the harpoon is drawn forward to its farthest extent, the point B will have described a quarter of a circle (more or less) from its first position, as represented in Fig. 3.

When the harpoon is ready for use it is in the position represented in Figs. 1 and 2. When driven into the body of the whale the flukes *c c* prevent the instrument from being drawn back, and the motion of the whale in attempting to escape causes the line to be straightened and the pin *d* to be broken, and then forces the point B forward into its flesh, as already described, till the eye E reaches the slide G. The barbs *b b*, being thus gradually turned in the flesh, cannot return in the cut made by their insertion, and consequently take a strong hold in the flesh of the whale.

By using the connecting-rod *i*, the sliding socket C and slide G are enabled to slide over any bends in the rod *a*, which are frequently caused by the turning or other violent motions of the whale. Otherwise the accidental bending of the rod *a* would render the improved action of the harpoon useless.

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

1. The arrangement of the eye or point of attachment of the line D to the harpoon and the eye in the slide G, through which the line passes, at different angles on the harpoon when prepared for throwing, substantially as described, whereby a twisting movement is given to the point of the harpoon in the act of being thrust farther into the whale, for the purpose set forth.

2. The connecting-rod *i* and guide G, in connection with the sliding socket C, whereby the advantages of a long socket or bearing are attained without the disadvantage of a continuous tube in case of bending the rod or shaft which slides therein, substantially as herein specified.

The above specification of my improved harpoon signed by me this 7th day of September, 1857.

JAMES Q. KELLY.

Witnesses:

O. B. LUCAS,  
JAMES H. PRICE.