

J. W. KNAPP.
Fish-Grappling Spears.

No. 144,110

Patented Oct. 28, 1873.

Fig. 2.

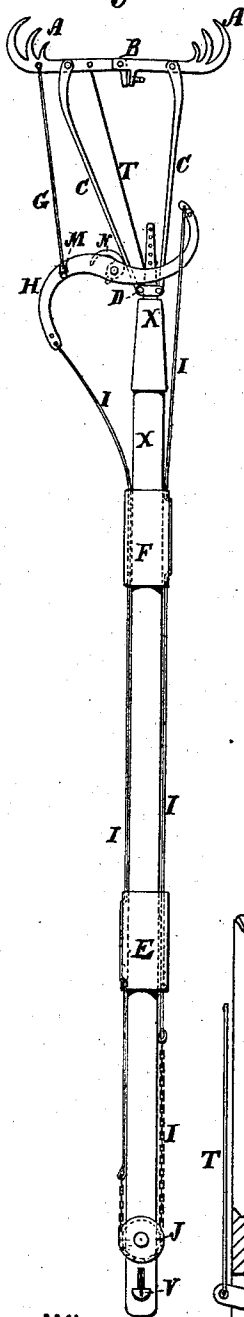


Fig. 1.

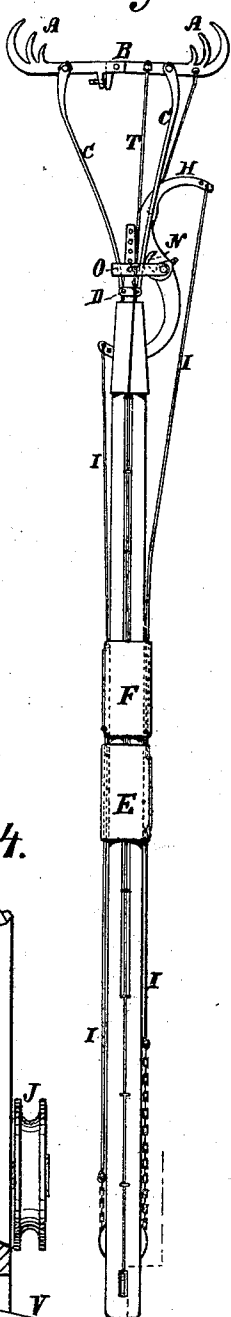


Fig. 3.

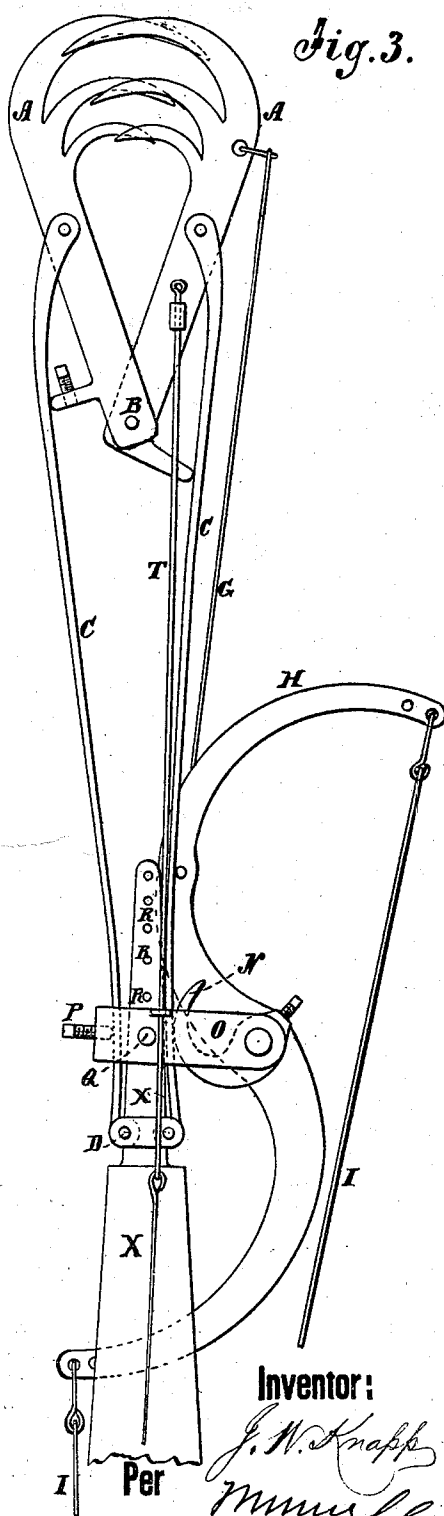
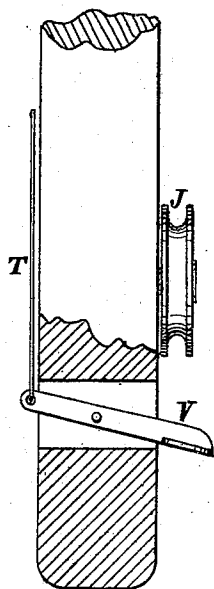


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

JONAH W. KNAPP, OF CROSS RIVER, NEW YORK.

IMPROVEMENT IN FISH-GRAPPLING SPEARS.

Specification forming part of Letters Patent No. **144,110**, dated October 28, 1873; application filed July 12, 1873.

To all whom it may concern:

Be it known that I, JONAH W. KNAPP, of Cross River, in the county of Westchester and State of New York, have invented a new and Improved Grappling Fish-Spear, of which the following is a specification:

The invention will first be fully described, and then clearly pointed out in the claims.

Figure 1 is a side elevation of my improved spear, with the hooks set for striking a fish. Fig. 2 is another elevation, with the hooks opened for discharging the fish and resetting them. Fig. 3 is a partial elevation, enlarged, with the hooks sprung; and Fig. 4 is a section of a portion of the handle, showing the device for tripping the hooks without striking the fish.

Similar letters of reference indicate corresponding parts.

A represents the spear-hooks, which, as in other like spears, are jointed together at B, and provided with springs C, which are bent when the hooks are opened, and held by the toggle-joint B until the latter is sprung, and then close them with sufficient force to secure the fish. I joint the springs to the stock X at D, instead of permanently attaching them, as they have always been arranged, so that I can release the hooks from the power of the springs, to facilitate the opening and setting of them; and I connect one of them with sliding sleeves E F on the stock by a rod, G, and wires, cords, or chains I, the cord or chain passing up and down on the rod and over a pulley, J, at or near the handle end, and being connected to the slides, so that, by the sliding of sleeve F toward the spear-hooks, and sleeve E toward the top of the handle, the rock-lever will be turned around to the position represented in Fig. 2, to open and reset the hooks; and by moving the sleeves in the opposite directions, the lever will be turned back again to the position in which it is represented in Figs. 1 and 3, to free the connecting-rod G, by sliding the swivel-stud M back on it, so that said rod will allow the jaws to close when tripped; also, to subject the springs to the required tension for actuating the hooks, which is effected by the action of the cam N on one of said springs, as indicated in Fig. 3. The springs are arranged in a clip, O, to which the rock-lever and cam N are pivoted; and the form of the rock-lever

and the connection of the rod G with said lever are such that, during the first part of the movement of said lever in the direction for opening the hooks, the tension of the springs is so lessened that when the opening of the hooks begins the springs have but little power to resist it, thus making it so easy that it can be readily effected by my apparatus. This clip has a set-screw, P, which acts in conjunction with the cam for producing and varying the tension of the springs; and the clip is made adjustable forward and backward on the stock along the springs, also, to vary the tension. To adjust it, the screw Q, which attaches it to the stock, is taken out, and it is shifted along, to be fastened again at any other of the screw-holes R.

Generally the hooks are tripped by striking them against the back of the fish at the joint; but as it is not always desirable to do so, particularly when, by striking a blow, the hooks might be forced against a stone or other hard substance that might injure them, I have a wire, T, connected to one of the hooks, near the joint, as at U, and extending up to a small trip-lever, V, at the top of the handle, where it can be worked by the finger to pull the joint back, and thus trip the hooks.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of a cam, N, with jointed springs C, grappling-hooks A, and the devices for opening and setting said hooks, the cam being so arranged that it relaxes the tension of the springs preparatory to the opening of the hooks, substantially as specified.

2. The arrangement of the rock-lever cam N, rod G, the rods and chain or cord I, and the sleeves E F, for restoring the tension of the springs after setting the hooks, substantially as specified.

3. The combination of the tripping-rod T with the jointed spring-actuated grappling-hooks A and stock, substantially as specified.

4. The combination of the adjustable clip O, springs C, cam N, rock-lever H, and the spear-stock, substantially as specified.

JONAH W. KNAPP.

Witnesses:

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