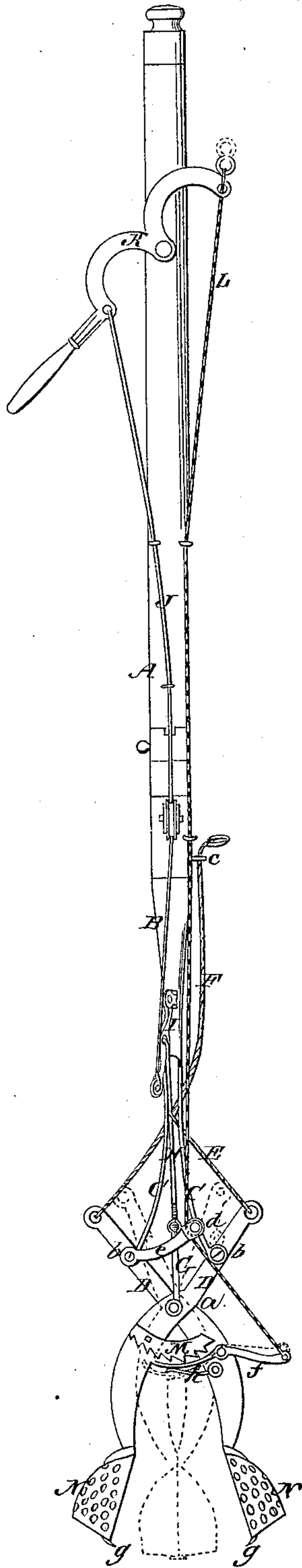


T. Sheehan,

Oyster Tongs

N^o 19516.

Patented Mar 2, 1858.



UNITED STATES PATENT OFFICE.

THOMAS SHEEHAN, OF DUNKIRK, NEW YORK.

IMPROVEMENT IN SUBMARINE GRAPPLES.

Specification forming part of Letters Patent No. 19,516, dated March 2, 1858.

To all whom it may concern:

Be it known that I, THOMAS SHEEHAN, of Dunkirk, in the county of Chautauqua and State of New York, have invented a new and Improved Submarine Grapple; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, said drawing being an elevation of my improvement.

This invention relates to an improvement in implements which are employed for grasping submerged articles or articles or substances at the bottom of rivers, wells, &c., and raising them to the surface.

The object of the invention is to produce an implement over which the operator may have perfect control, the jaws being allowed to be distended to a greater or less degree, as may be desired, and also permitted to close forcibly or gradually at any depth the implement is capable of being used.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the handle of the implement, which may be constructed of wood in pieces of suitable length and jointed together, any number of joints or pieces being used, according to the depth of the water.

To the end of the handle A a metallic socket, B, is firmly attached, the outer end of the socket extending some distance beyond the handle, and being divaricated or divided into two parts, each part being sufficiently thin, or of such a thickness as to form a spring, C, of requisite strength.

To the outer end of each spring C a lever, D, is pivoted, as shown at *b*. These levers are of slightly-curved form, and are connected by a rivet, *a*, the pivots *b* being between the rivet *a* and the inner ends of the levers.

To the inner end of each lever D the ends of a cord or chain, E, are attached, and this cord is attached at its center to a cord or chain, F, which passes through eyes *e* attached to the handle A. This cord or chain F may extend the whole length of the handle.

To the rivet *a* a loop, G, is attached. This loop has a cord or chain, H, secured to it,

which cord or chain is attached to a lever, I, on the handle A. The outer end of lever I has a cord or chain, J, attached to it, which extends along through guides on the handle and is attached to one end of a lever, K. The opposite end of this lever has a cord or chain, L, attached to it, which passes through guides on the handle and around a pulley, *d*, at the end of an arm, *e*, attached to the end of one of the springs C.

The end of the cord or chain L is attached to the outer end of a pawl, *f*, which is pivoted to one end of the levers D and fits into a curved or segment rack, M, which is attached permanently to the opposite lever D.

To the outer end of each lever D a jaw, N, is attached. These jaws are constructed of metal of dish form, perforated and provided with claws *g* at their outer edges.

The operation is as follows: By drawing upward the lever K by hand the cord or chain J will actuate the lever I, and this lever will, by means of the chain H, distend the levers D and jaws N, the chain H drawing or acting upon the rivet *a*.

The jaws may be distended so as to be any required distance apart by means of the pawl *f*, which is kept in contact with the teeth of the segment rack M by means of a spring, *h*. When the jaws are distended the required distance apart the implement is lowered into the water, and when the jaws are over the article to be grasped the cord L is operated by hand, so as to liberate the pawl *h* from the rack M, and the jaws will be forced toward each other by the springs C C, the jaws grasping the article or substance between them.

In case the article to be grasped and raised is very weighty the implement may be assisted by applying the power to the cord F, which will relieve the handle of undue strain.

In case the article to be grasped is such that it would be injured by the forcible closing of the jaws the jaws may be made to close gradually by controlling the movement of lever K with the hand.

By having the jaws kept in a distended state by means of the pawl and segment rack, as shown, the jaws may be distended a greater or less distance according to the size of the

article or articles to be grasped, and consequently time will not be expended in drawing up articles larger than the articles sought.

I am aware that jaws have been previously applied to springs, and various plans have been devised for retaining the jaws in a distended state and liberating them when desired; and I therefore do not claim, broadly, such device irrespective of the peculiar means employed, as herein shown; but,

Having thus described my invention, what

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

The employment or use of the segment rack M and pawl h, applied to the levers D D of the jaws, and actuated by means of the levers K I and cords or chains J H L, substantially as and for the purpose set forth.

THOMAS SHEEHAN.

Witnesses:

L. B. BROWN,

GEO. P. SAUNDERS.