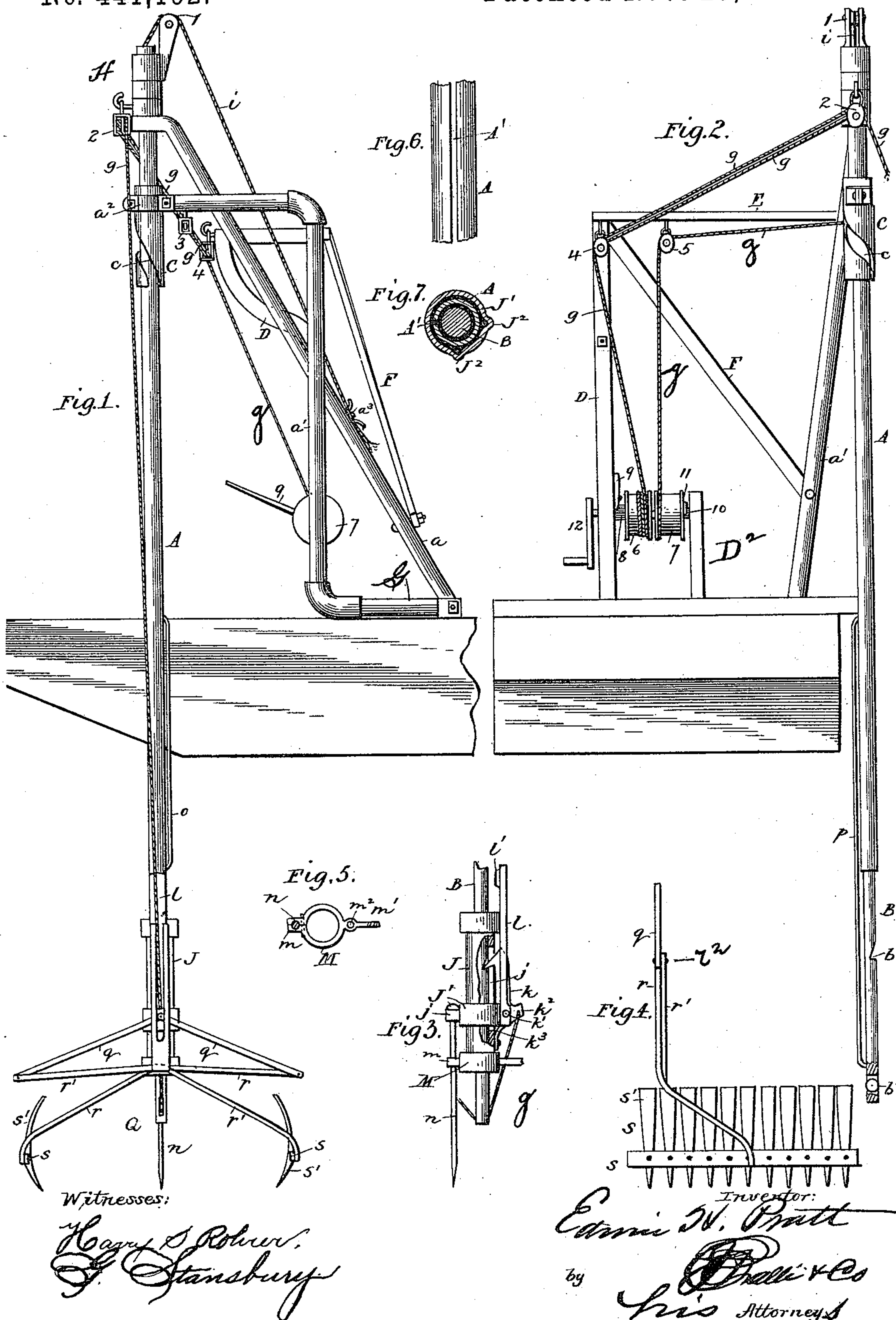


(No Model.)

E. H. PRATT.  
APPARATUS FOR OPERATING OYSTER TONGS.

No. 441,192.

Patented Nov. 25, 1890.





# UNITED STATES PATENT OFFICE.

EDWIN H. PRATT, OF WARSAW, VIRGINIA.

## APPARATUS FOR OPERATING OYSTER-TONGS.

SPECIFICATION forming part of Letters Patent No. 441,192, dated November 25, 1890.

Application filed January 23, 1890. Serial No. 337,827. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN H. PRATT, a citizen of the United States, residing at Warsaw, in the county of Richmond and State of Virginia, have invented certain new and useful Improvements in Apparatus for Operating Oyster-Tongs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to apparatus for operating oyster-tongs; and its objects are, first, to simplify their manipulation as well below as above the surface of the water; second, to increase the effective radius of said tongs; third, to open and close said tongs, alike above and below the water-surface, from the boat; fourth, to release said oysters from the tongs readily, and, fifth, to accomplish these ends with structural simplicity and economy. I attain these aims by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation of an apparatus for operating oyster-tongs embodying the essential elements of my invention. Fig. 2 is a front view thereof. Fig. 3 is a detail view of the traveler. Fig. 4 is a detail view of the tongs. Fig. 5 is a detail of the sleeve. Fig. 6 is a detail view of the main shaft, and Fig. 7 is a transverse section of Fig. 3 when elevated.

The same designations indicate corresponding parts in the several views.

From the early practice of diving for oysters to the present custom of dredging and tonging them numerous devices have progressively been employed in the evolution of the art. The apparatus now used is, however, open to the objection either of cumbersome-ness, a disproportionate expenditure of requisite power, undue initial expense in purchasing such devices, or excessive relative cost of maintaining them in pristine vigor. I have therefore devised an apparatus intended to combine facility of operation with comparative economy in cost of production and maintenance.

Adjusted on an ordinary oyster-boat is a horizontal frame-bar G, in whose respective ends the standards  $a$   $a'$  are secured, the former of which terminates upwardly at the shaft A in a collar that encircles it, and the latter terminating likewise at the shaft A, (slightly below,) and secured thereto by the annulus  $a^2$ , which surrounds the sleeve C, that has a spiral groove  $c$ . The shaft A, being hollow, permits the telescopic reciprocation of the concentric shaft B, which is provided with a notch  $b$  to engage the operating-trigger  $k$ , a pulley  $b'$ , around which the rope  $g$  travels, and a parallel rib  $p$ , which guides the shaft B in the slot  $A'$  of the shaft A.

D is the post, wherein one end of the shaft 8, having two winding-drums 6 7 and a lever 9 and crank 12, is mounted, the other end 10 being secured in the standard  $D^2$ . The dog 11 serves to lock the winding-drums together, when desired, so as to cause their synchronous rotation. A bracket  $D'$  is also secured to the post D, whereto a double pulley 4 is secured, through which the cord  $g$  passes twice, the lower end winding on the drum 6, and the upper end whereof, after traversing the pulley 2, suspended from the sleeve H on the shaft A, passes down one end of the shaft A, as shown in Fig. 3, through eyes  $k^2$   $m^2$  of extension  $m$ , through pulley  $b$ , up the other end of the shaft A, through pulley 5 to drum 7. A cross-arm E connects the post D to the pole  $a'$ , and the brace F is connected to post D and pole  $a'$ . A cord  $i$ , secured to the pole  $a$  by a cleat  $a^3$ , passes over pulley I, attached to the sleeve H, and passes down the hollow shaft A until it meets the shaft B, to which it is fastened, whereby its play is regulated. The shaft B is encircled at its base by a traveler J, having a sleeve  $J'$ , whereto a rod  $l$  is attached, having a terminal lug  $l'$ , adapted to engage the slot  $c$ , as shown in Fig. 1, in sleeve C, whereby the tongs are rotated. Secured to the same sleeve  $J'$  is a trigger  $k$ , mounted pivotally on the pin  $k'$ , which engages normally the notch  $b$  in the shaft B, being held in place by spring  $k^3$ . Below the sleeve J is a counterpart sleeve M, having a perforated extension  $m$ , through which the headed pin  $n$  passes, it being maintained in place by a corresponding projection  $j$  on the sleeve J, and serves to pin the device to



the oyster-bed, thus facilitating the gathering operation. A rib *o* is attached to the shaft A, performing a similar function as rib *p*—that is, to guide the traveler J according  
 5 as it is shifted antipodally by the groove *c* in sleeve C. The tongs Q consist of two arms *q*, attached to the cord *g* at their junction, and secured at their other ends to the horizontal arms *r r'*, held by the pin *r<sup>2</sup>*, as shown in Fig.  
 10 4, to which plates *s* are attached by rivets or pins, wherefrom the teeth *s'* are suspended. If desired, a guy-line may be secured to the bottom of shaft B, the other end whereof may  
 15 be fastened in the bow of the boat, whereby tidal changes will not affect the operation of the device.

The operation is as follows: The tongs are lowered to the oyster-bed by unwinding the drum 6. The pin *n*, entering the bed, holds  
 20 the tongs pivotally thereto. The drums 6 7 are then wound, which serves to bring the tongs together, grasping all intermediate oysters. As the tongs are raised they will be automatically rotated, so as to bring them  
 25 over the boat, by the engagement of lug *l'* with the slot or groove *c*. Then the oysters are released, as shown, and the operation repeated.

Having thus fully described my improvements, what I claim is—

1. In an oyster-tonging apparatus, in combination with suitable supports and actuating

mechanism, a depending tubular arm, a reciprocating shaft within the same, a spirally-slotted sleeve surrounding the upper part of  
 35 said depending arm, a sleeve at the lower extremity of said arm and to which the tongs are operatively secured, and a lever pivoted on said sleeve and having a lug thereon for engagement with the slot in the upper sleeve  
 40 when the arm and its shaft are raised, whereby they are rotated to discharge the contents of the tongs on a vessel's deck.

2. In an oyster-tonging apparatus, in combination with a rotary depending arm and a  
 45 shaft telescoping therein, a sleeve on the lower end of said arm, hanks on said sleeve having an impaling-pin secured thereto, a trigger secured to the same for engagement with a slotted sleeve on the upper part of  
 50 said arm, the shaft having a pulley at its lower extremity, over which the draw-rope passes, and hoisting mechanism for the arm and its shaft.

3. Oyster-tongs having thereon a vertical  
 55 pin which engages the tongs with the oyster-bed and prevents the said tongs from dragging.

In testimony whereof I affix my signature in presence of two witnesses.

EDWIN H. PRATT.

Witnesses:

D. M. CRIDLER,  
 J. H. MCCORMICK.