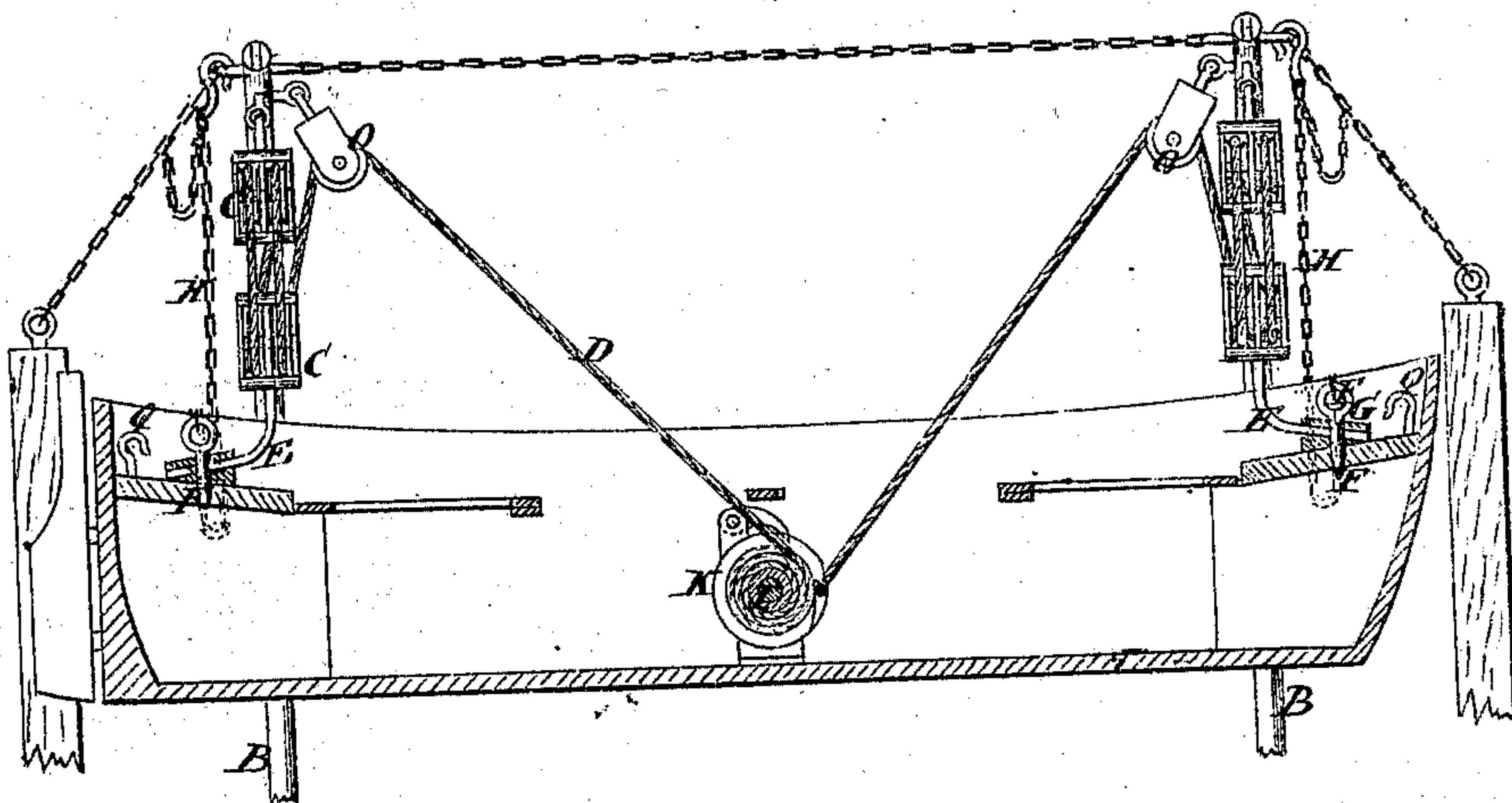
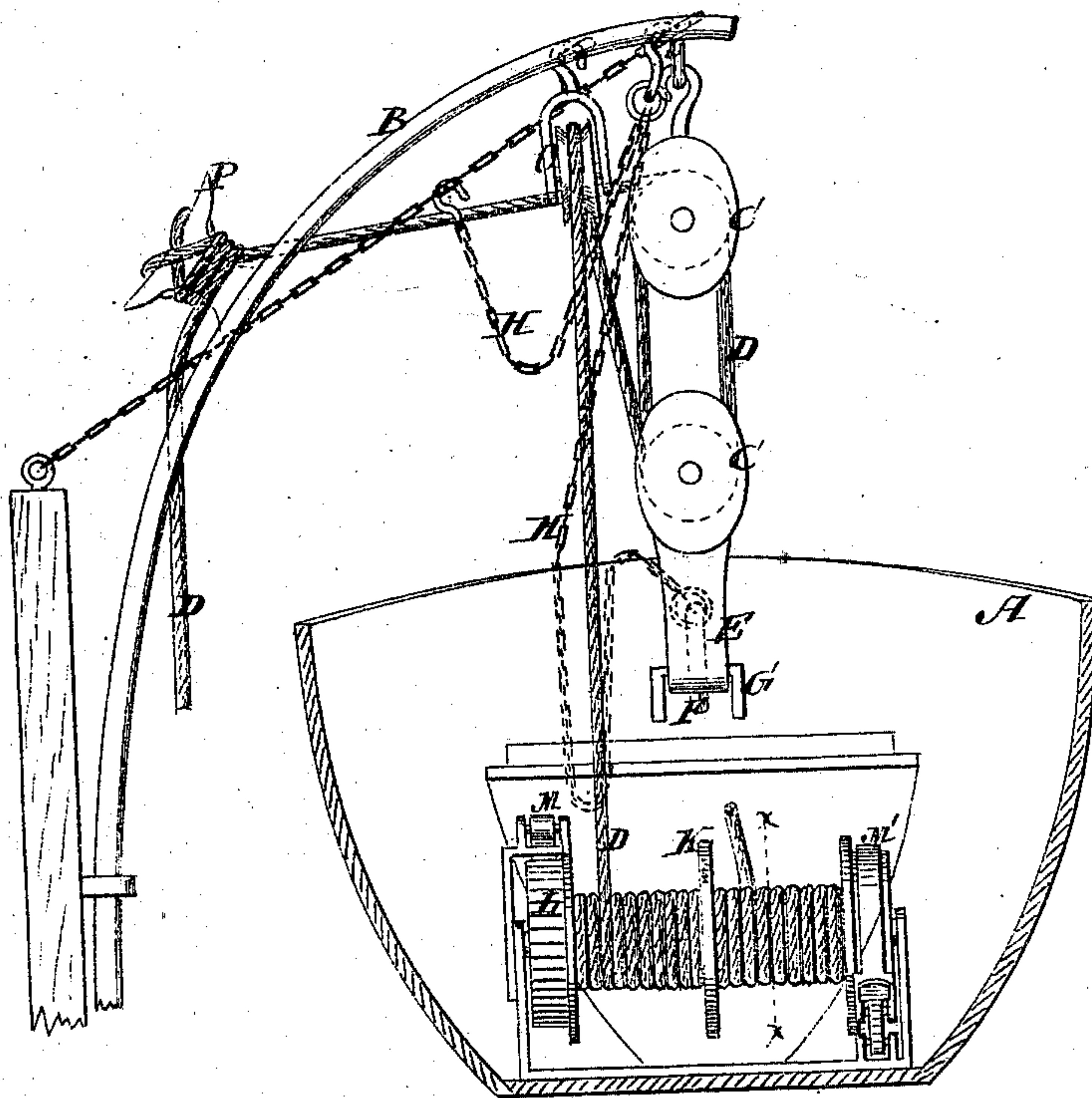


C. QUARITIUS.  
Improvement in Boat Detaching Apparatus.  
No. 124,511. Patented March 12, 1872.

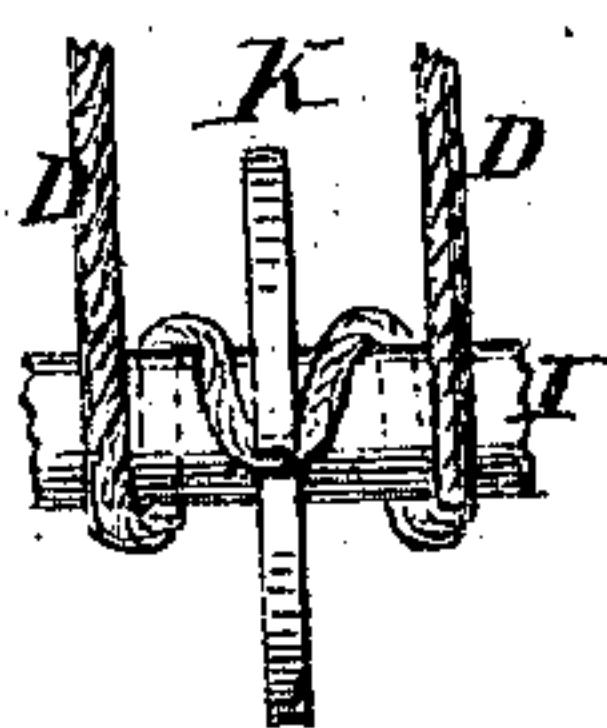
*Fig. 1.*



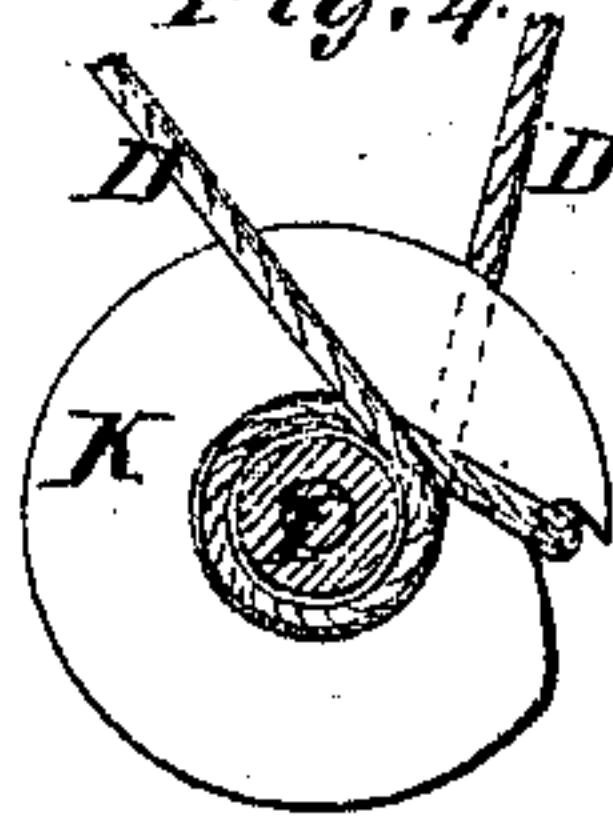
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:

*E. Wolff.*  
*Geo. W. Mabee*

PER

Inventor:

*C. Quaritius*

*Munroe*

Attorneys.



# UNITED STATES PATENT OFFICE

CHRISTIAN QUARITIUS, OF CANARSIE, NEW YORK.

## IMPROVEMENT IN BOAT-DETACHING APPARATUS.

Specification forming part of Letters Patent No. 124,511, dated March 12, 1872.

Specification describing a new and useful Improvement in Safety Life-Boat Lowering and Detaching Apparatus, invented by CHRISTIAN QUARITIUS, of Canarsie, in the county of Kings and State of New York.

My invention consists of a detachable connection of the hoisting and lowering pulley-block tackle with the boat and stop-chains in connection with the detaching bolts for pulling them out when the boat strikes the water, or just before, and a drum with a friction-brake in the boat, whereon the bight of the "fall" rope between the pulley-tackle is wound for paying off therefrom sufficient rope, under the control of one in the boat, to let it down by the friction-brake, all as hereinafter described.

Figure 1 is a longitudinal sectional elevation of a suspended boat, and an elevation of the tackle. Fig. 2 is transverse section of the boat. Fig. 3 is a partial elevation of the drum for the "fall" rope; and Fig. 4 is a section of the same on the line *xx* of Fig. 2.

A is the boat, B the davits, C the pulley-block, D the fall rope, E the bars, and F the pins by which the lower pulley-blocks are detachably-connected to the boat by means of mortised blocks or pickets G. H represents the stop-chains for pulling out the pins to disconnect the pulley-blocks when the boat falls upon the water. I represents the drum in the boat for paying out the fall rope to let the boat down. K is a notched disk thereon for engaging the fall rope so that it will readily disconnect with the drum at the proper time. L is a ratchet-wheel, and M a pawl for holding the fall rope till all is ready for lowering, and N is a friction-brake to regulate the descent of the boat. Instead of having a separate fall rope for each set of pulley-blocks, with one end attached to the lower block, as in the ordinary arrangements, I have one long rope, extending through the lower blocks and guide-pulleys O, from one set of blocks to the other, to be doubled between said blocks and wound on the drum L when the boat is held up by the stop-chains H, so that said rope may be slackened off for letting the boat down after the

chains have been removed and the boat is again suspended by the rope, said rope being made fast to the belaying-pins P, as shown in Fig. 2, at which time the stop-chains are shortened up also, as shown in Fig. 2, so as to pull out the pins just previous to the arrival of the boat upon the surface of the water.

The boat is first hoisted up by the rope and pulleys, the lower blocks being connected to the boat by the bars E and pins F, the stop-chains being let down sufficiently therefor; then the stop-chains are hooked on to the hooks Q and the rope D slackened up to let the boat be suspended by them, to release said rope so that it may be hooked on to the drum I between the pulley-blocks, as shown in Fig. 3. It is then wound thereon, being drawn through both sets of blocks until a sufficient amount has been taken on for letting the boat down; the ratchet-wheel and pawl then hold the drum with the rope on it, so that by pulling up the rope at the ends the boat is lifted off the chains. Then said rope is made fast to the pins P, and the boat is wholly suspended thereon, allowing the stop-chains to be shifted and adjusted as shown in Fig. 2, to detach the boat when it falls. When all is ready, as shown in Fig. 2, the pawl is lifted from the ratchet-wheel by one in the boat. The rope then unwinds from the drum, and lets the boat down fast or slow, according to the will of the operator, who regulates it by the brake, and soon after the blocks become detached, as before described, the rope will escape from the drum and all will be free. It will be seen that this arrangement has the advantage of being entirely under the control of the person in the boat, and the rope pays out alike for both ends, of necessity, so that there is no danger of either end falling before the other. Also, that the complete detachment of the boat is insured.

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

1. The hoisting-rope D, extended from one set of pulleys to the other, through guide-pulleys O, and combined with a drum, I, in the

boat to be lowered, said drum being provided with a tripping holding-device and a friction-brake, all substantially as specified.

2. The bar E, pin F, pockets G, and stop-chains H, combined with the pulley-tackle and the boat, and constituting a detachable connection of said blocks with said boat, all substantially as specified.

The above specification of my invention signed by me this 6th day of December, 1871.

CHRISTIAN QUARITIUS.

Witnesses:

GEO. W. MABEE,

T. B. MOSHER.