W. M. WOOD, Jr.

Boat-Detaching Apparatus.

No. 133,692. Patented Dec. 3, 1872.

*Fig. 1.*

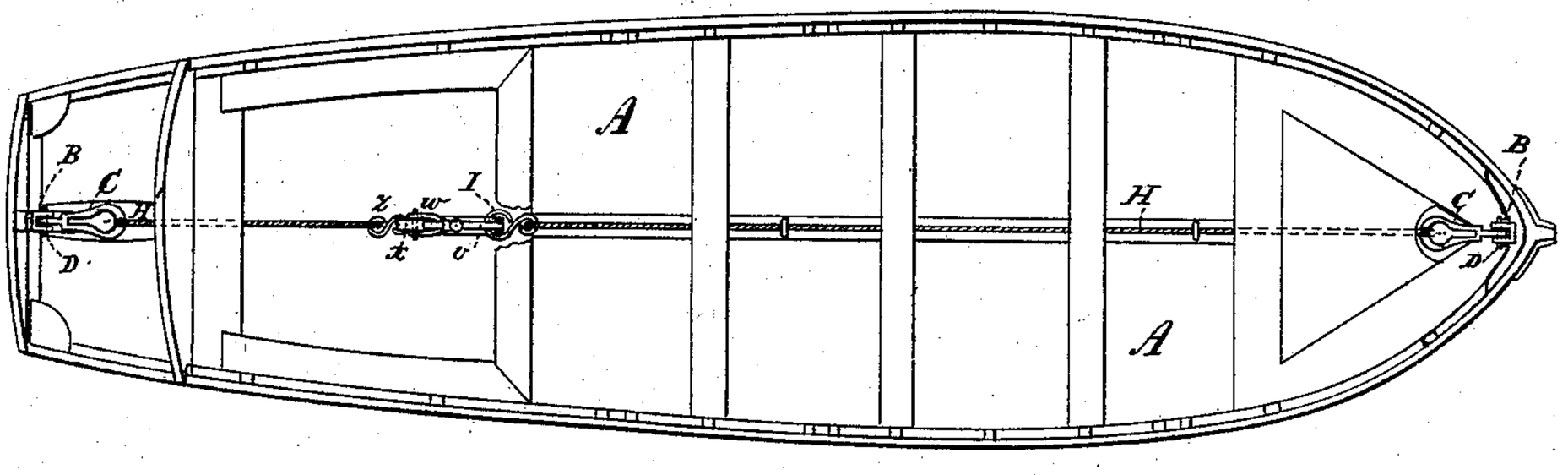
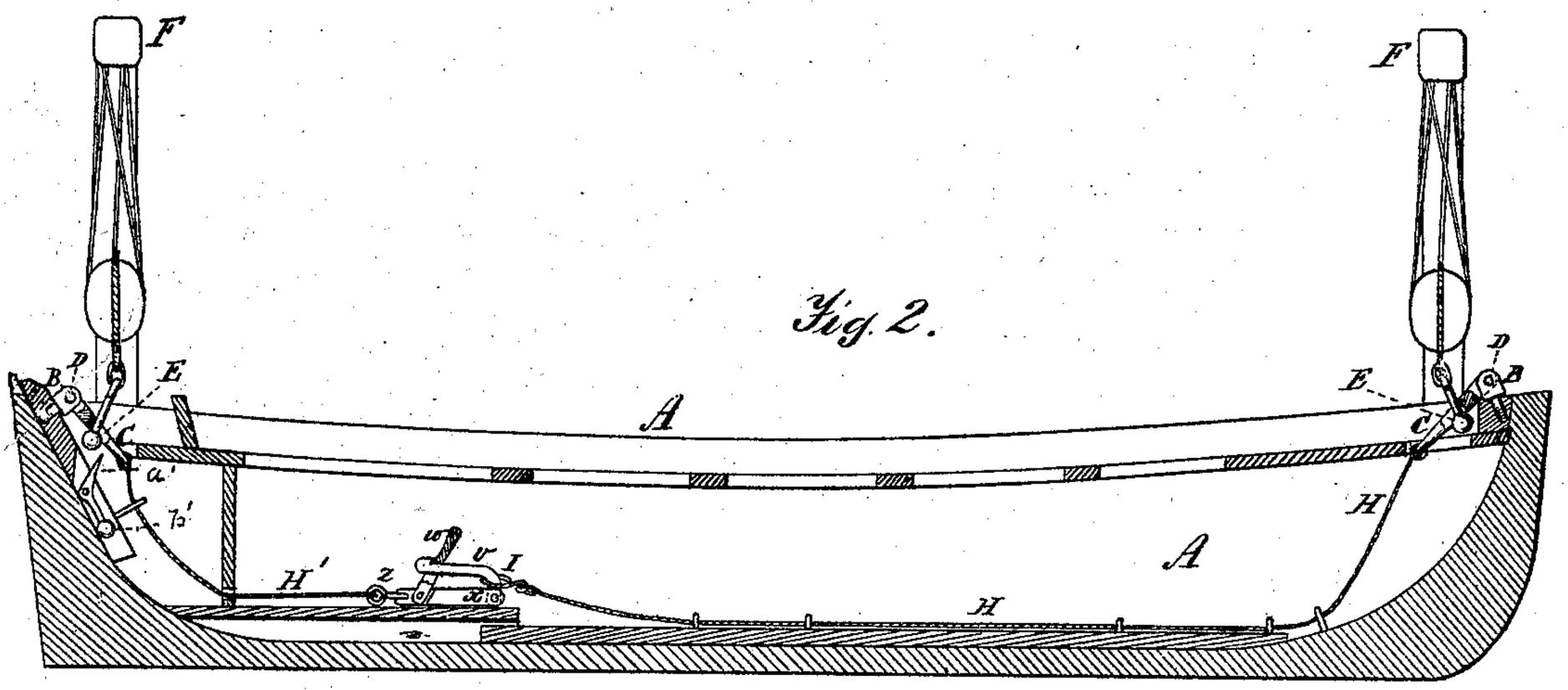



*Fig. 2.*




*Witnesses.*

A. Ruppert.

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*Inventor.*

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by his attys.

Cox and Cox

# UNITED STATES PATENT OFFICE.

WILLIAM M. WOOD, JR., OF UNITED STATES NAVY.

## IMPROVEMENT IN BOAT-DETACHING APPARATUS.

Specification forming part of Letters Patent No. **133,692**, dated December 3, 1872.

*To all whom it may concern:*

Be it known that I, WILLIAM M. WOOD, Jr., of the United States Navy, have invented a new and useful Improvement in Boat Attaching and Detaching Apparatus, of which the following is a specification:

### *Nature and Objects of the Invention.*

The invention relates to that class of boat attaching and detaching devices which employ links provided with slots which receive pendants provided with heads to prevent them slipping through the slots, the links being connected fore and aft by means of chains, or their equivalents, operated by trigger-bar and lever, as hereinafter specified. The object of the invention is to furnish a safe and convenient means of attaching or detaching a boat from falls or davits, the detaching function of the invention being entirely under the control of the person in the stern of the boat, and so arranged that the operation can be performed without requiring any of the occupants of the boat to leave their seats.

### *Description of the Accompanying Drawing.*

Figure 1 is a plan view of a boat with my apparatus attached. Fig. 2 is a side view of the same, one side of the boat being removed.

### *General Description.*

A in the accompanying drawing is the boat, to the stem and stern posts of which are secured the slotted bolts B, into which fit the base of the links C, pivoting on the key-bolts D. The links C are so constructed that their apertures are circular and large enough at the end opposite the part where the link is attached to the bolt B to allow the head of the pendant E to pass through it. The rest of the aperture is contracted to a straight-edged parallel-sided slot, of such dimension as to receive the neck of the pendant E, but too small to admit of the head of the pendant passing through. The pendant E consists of a piece of metal having a head at its lower extremity, a neck above, and is secured, by a link passing through an eye in its upper extremity, to the under side of the lower block of the fall, which is attached above to the davit F. The head of the pendant should be of such size as to pass readily through the larger part of the aperture in the link C. The neck should be of such form and size as to pass readily into the smaller part of the aperture in the link C. To the front or upper part of the bow-link C is secured one end of a chain, H, or wire rope, or other similar device, which passes down the inside of the stem-post through staples, along the upper part of the keel, and at its other end is provided with a link, I. A second chain, H′, is secured at one end to the stern-link C, and attached to the stern-post similarly to the chain H, its other end being provided with an eye to receive the link *z*, which is secured through an aperture in the aft end of the bar *x*, here reduced to a tongue, upon which is pivoted the slotted lever *w*. The forward end of the bar *x* is provided with a slot, in which is pivoted the lower end of the curved lever or trigger *v*, which is provided at its other end and upon its upper edge with a catch, so that when the trigger *v* is thrown backward the lever *w* may be thrown forward, its slot passing over the catch, thus locking the trigger *v* down. The relative lengths of the chains H H′ should be such that when the trigger is locked the chains will be drawn taut. The trigger *v* and lever *w* move on the bar in the same vertical plane. The link I may be secured to the trigger *v* by a small cord to prevent these parts becoming too widely separated. The parts H H′ should be of some flexible material which will stand a strain without materially elongating. Attached to the bow and stern posts, immediately under the links C, is a device designed to prevent the pendant E from unshipping when attached. It consists of a tongue, *a′*, which, when in its natural position, is inclined upward at less than a right angle, and which is pivoted so as to be controlled by a counterpoise, *b′*. (See Fig. 2.) When the pendant E is attached the point of the tongue *a′* prevents its unshipping, at the same time presenting no obstacle to the ready passage of the pendant in the opposite direction.

### *Operation.*

To attach the boat, draw aft the link I, passing it over the trigger *v;* force the trigger backward; move forward the lever *w* until the slotted part thereof passes over the notch in the trigger *v;* allow the trigger to rise until the notch comes against the upper side of the slot, thus

locking the trigger; pass the heads of the pendants E through the bow and stern links C; slip the necks of the pendants back into the slotted portion of the links; haul taut on the falls. This brings the heads of the pendants against the under side of the slotted parts of the links C. These being held in a horizontal position by the opposing forces of the chains H H′ and the weight of the boat upon the fall, the head of the pendant E cannot slip through the slot in the link C; hence the boat is attached.

To detach the boat, when attached as aforesaid, draw aft the lever *x* so as to clear the trigger *v*, which swings forward, thus parting the connection of the chains H H′ as the link I slips forward over the open trigger *v*. The links C are thus freed from the force holding them down, and accordingly rise. The heads of the pendants E immediately pass from the slots in the links C, slipping through the same, thus detaching the boat.

*Claims.*

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

1. The combination of the pendants E, links C, chains H H′, with the bar *x*, lever *w*, trigger *v*, and link I, substantially as and for the uses and purposes shown and described.

2. The combination of the pendants E, links C, and chains H H′, as and for the uses and purposes substantially as shown and described.

In testimony that I claim the foregoing improvement in boat attaching and detaching apparatus, as above described, I have hereunto set my hand and seal this 25th day of March, 1872.

W. M. WOOD, JR. [L. S.]

Witnesses:
WM. WHITEHEAD,
J. P. J. AUGUR.