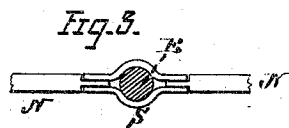
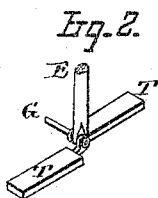
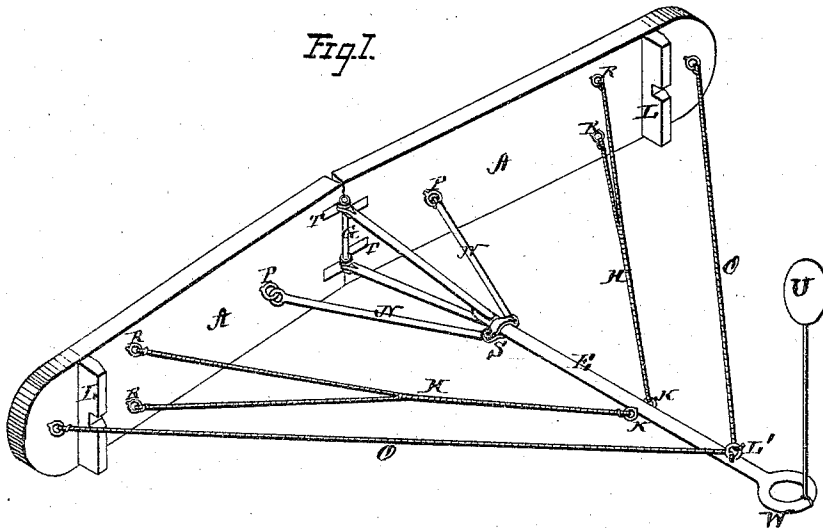


J. C. BEALS.
Marine Drags.

No. 143,318.

Patented September 30, 1873.



Witness:

Gas C. Hutchinson
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Inventor.

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Attorneys.

UNITED STATES PATENT OFFICE.

JOHN C. BEALS, OF SEARSPORT, MAINE.

IMPROVEMENT IN MARINE DRAGS.

Specification forming part of Letters Patent No. **143,318**, dated September 30, 1873; application filed September 15, 1873.

To all whom it may concern:

Be it known that I, JOHN C. BEALS, of Searsport, in the county of Waldo and in the State of Maine, have invented certain new and useful Improvements in Ship's Drag; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a device called a "ship's drag," composed of a central shank of metal, to which are attached wings, one or more, made of stout plank or other suitable material, by rods or braces, and a series of ropes or guys to keep it in proper position and to operate it with when in use. Its object is for the purpose of working a disabled ship at sea in case of loss of rudder or other cause.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of my ship's drag, and Figs. 2 and 3 are detached views of certain parts thereof.

E is the shank, which may be constructed of iron or other metal. At its outer end is a ring, W, for attaching the hawser or rope which connects it with the ship. The shank forks at the other end, and is fastened by hinges T to wings or blades A, the rod G passing through the hinge-pieces on the wings and through eyes in the ends of the fork, so as to hinge the whole together. N N are braces, hinged at their inner ends to a sliding collar, S, on the shank E, their outer ends being loosely attached to the eyebolts or shackles P P on the wings A A. These braces keep the wings A at the same angle with the shank E, on which the collar S moves freely up and down when the wings are opened or closed.

In the ship's drag, as shown in the drawings, the wings A are made of stout plank bolted together edgewise. They may, however, be made of metal, rubber, or canvas, or of any other material suitable for the purpose.

L is a cross-piece on each wing A, near its outer end. These are in bearings to support

the wing-pieces when shut together. H H are guy-ropes or lines which run from the shackles K, on each side of the shank E, to the eyebolts R on the wings. These guys bear the strain which comes upon the wings A from resistance of the water when the drag is in operation. O O are tripping-lines to draw the wings together. These are attached at their ends to eyebolts at or near the ends of the wings, and pass through the shackle L/ near the end of the shank, and connect with a line on board the ship.

The edges of the wings may be weighted to insure their proper position when in the water.

To operate my device it is cast overboard, and the rope attached to the shank payed out to a proper distance from the ship and securely fastened. In preventing a ship from drifting to leeward the drag is cast over from the bow of the vessel, where the rope attached to it is made fast; the tripping-line is loosed, and the wings open, checking the drift of the vessel to leeward and bringing her head to the wind, thereby preventing her from getting into the trough of the sea. When used to steer with it is fastened by the rope to the deck near the stern, a spar being projected from each quarter, and the drag veered from one side to the other with pulleys or tackles.

The buoy U attached to the ring W keeps the shank in a horizontal position while in the water.

When it is desired to haul the drag aboard the vessel, by pulling upon the trip-line O the wings A A are folded up against the shank E, and in this form it can be readily drawn from the water and snugly stored on deck without taking but little space, where it will be at all times ready for use.

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

The folding wings A A, hinged braces N N, collar S, shank E, and trip-rope O, all combined and adapted to operate as a marine drag, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of September, 1872.

JOHN C. BEALS.

Witnesses:

C. L. EVERT,

W. T. C. RUNNELLS.