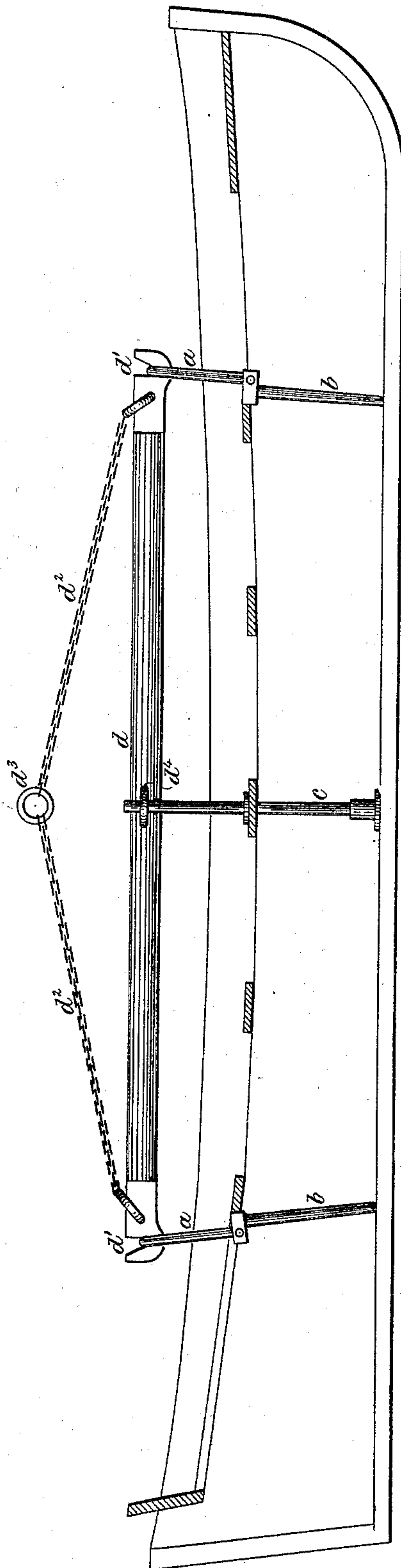


(No Model.)

T. S. HOSFORD.
BOAT LOWERING APPARATUS.

No. 426,449.

Patented Apr. 29, 1890.



Witnesses.
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UNITED STATES PATENT OFFICE.

THOMAS STROUD HOSFORD, OF HIGHFIELD, COUNTY OF SURREY, ENGLAND.

BOAT-LOWERING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 426,449, dated April 29, 1890.

Application filed February 21, 1890. Serial No. 341,368. (No model.)

To all whom it may concern:

Be it known that I, THOMAS STROUD HOSFORD, a subject of the Queen of Great Britain, residing at Highfield, Tulse Hill, in the county of Surrey, England, have invented certain new and useful Improvements in Boat-Lowering Apparatus, of which the following is a specification.

This invention has for its object improvements in boat-lowering apparatus.

At the present time it is usual to lower ship's boats from davits by means of tackles or falls connected with the boat at two points, one near the bow and the other near the stern of the boat. This arrangement, however, is not satisfactory and accidents occur in lowering boats into the water in consequence of the tackles or falls becoming jammed in lowering or one being disengaged while the other is set or held fast, or one tackle being payed out more rapidly than the other. I avoid these dangers by suspending the boat while lowering from one point only and that above the center of gravity of the boat, so that she takes the water on even keel. This I do by means of gear which prevents undue strain upon the boat and which automatically releases the boat as soon as she rises upon the water, or, in cases where it is preferred, the boat may be released by hand.

In order that my said invention may be fully understood and readily carried into effect, I will proceed to describe the drawing hereto annexed.

The drawing shows a longitudinal section of a boat fitted with lowering-gear in accordance with my invention.

$a\ a$ are two hooks, or it may be two U-form eyes jointed at the ends at the bow and stern thwarts of the boat, respectively. The joints are very securely connected with the keel of the boat by upright bolts $b\ b$.

c is a stanchion passing through the center thwart and entering a socket at the bottom of the boat. This stanchion can be readily unshipped. This is the whole of the lowering-gear, which remains with the boat when afloat.

d is a beam suspended from the davits. In order that the beam d may be as light as possible consistently with sufficient strength, I

prefer that it should be of steel and tubular. The beam has slots $d'\ d'$ at its ends which engage with the hooks $a\ a$.

$d^2\ d^2$ are chains upon the beam, which pass to a ring d^3 , placed as nearly as may be over the center of gravity of the suspended boat when on an even keel; but no great accuracy is required in this adjustment, as the trim can be adjusted by arranging the load in the boat.

d^4 is a ring fixed on the beam, and passing over the stanchion c . It serves to keep the gear steady. The boat may be lowered from davits by the ordinary means, either one fall or both being used and shackled to the ring d^3 . It is then immaterial whether if both falls be used they be eased out at the same rate or if one be let go before the other, for then the boat only draws a little ahead or astern and does not fall off until she is floated. As soon, however, as the water removes all strain from the lowering-gear, the beam d drops out of the hooks $a\ a$ and the boat is released. The hooks $a\ a$, as soon as they are free, fall down out of the way. Both ends of the beam escape simultaneously from the hooks; but even if this should not be so no harm can result. Simply the beam will be tilted and the hooks become free.

While the boat is suspended she may, if necessary, be controlled by bow and stern lines tended by hands on board the ship. This, however, will only be needed in rough weather.

The boat may be lifted to the davits no longer required afloat by shipping the hooks into the slots, and in rough weather putting a mousing on the hooks, which is to be removed on the boat being secured to the davits. She is then ready for lowering again.

If automatic liberation of the boat when afloat be not required, a disengaging-hook may be substituted for the ring d^3 , and it may be thrown off by a man in the boat as soon as the tackles become slack in consequence of the boat being floated. The chains d^2 in this case may either pass to a beam d , as shown, or the beam may be dispensed with, the chains then passing to eyes fixed in the stanchions in the boat.

What I claim is—

1. The combination, in boat-lowering gear,

of hooks a upon the boat, a beam d , hooks
 d' d' at the ends of the beam, engaging with
the hooks a , and a ring d^3 , connected with
the beam over the center of gravity of the
5 boat and receiving the tackle or tackles by
which the boat is lowered.

2. The combination, in a boat-lowering gear,
of a ring d^3 over the center of gravity of the
boat and receiving the tackle or tackles by
10 which the boat is lowered, and chains d^2 d^2

above the keel and passing from the ring d^3
to points of attachment, near the bow and
stern of the boat, and liberating-gear for cast-
ing off the tackles when the boat is floated.

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