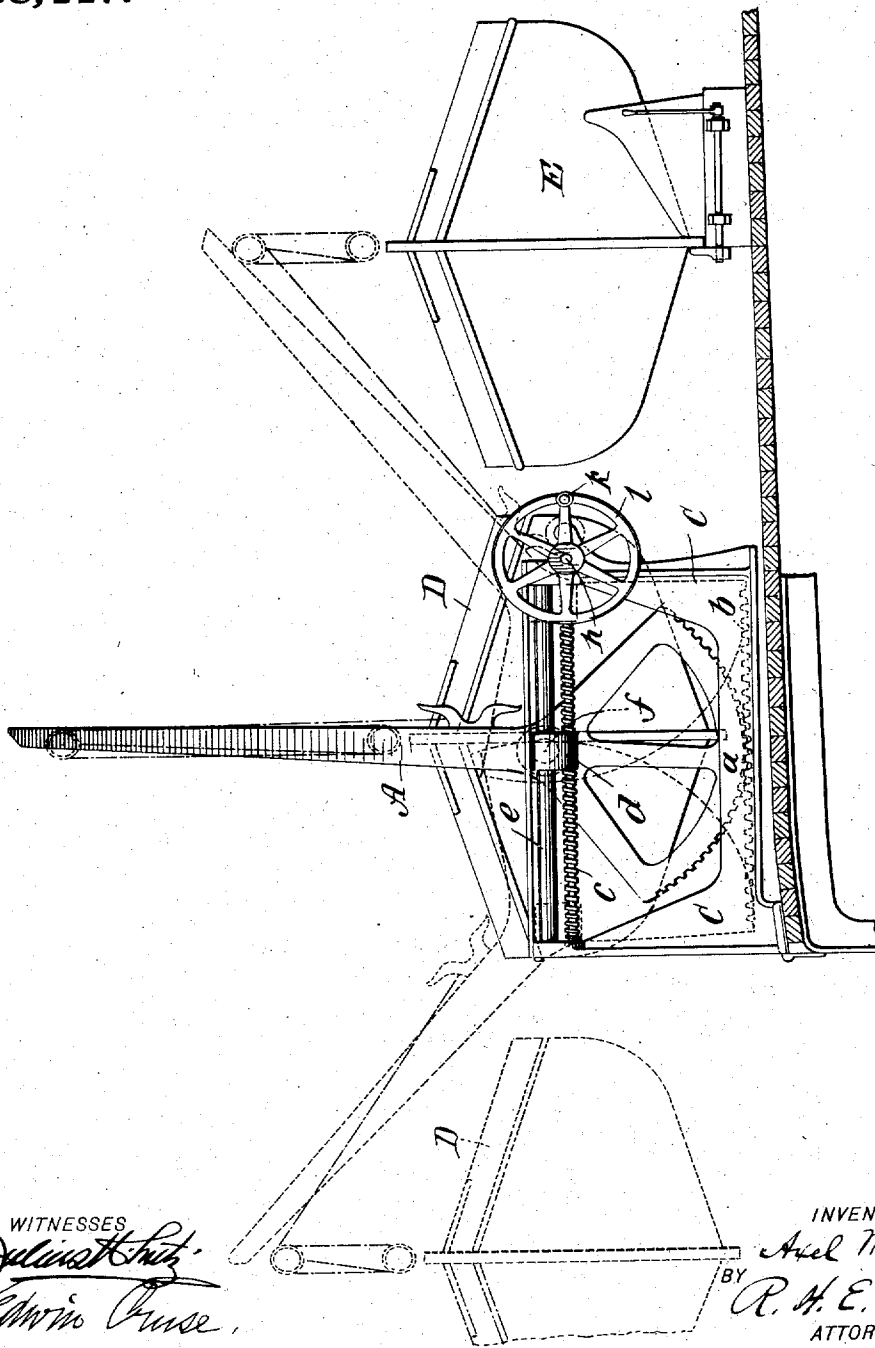


A. WELIN.
DAVIT FOR HOISTING AND LOWERING BOATS.
APPLICATION FILED DEC. 2, 1907.

938,447.

Patented Oct. 26, 1909.



WITNESSES
Julius H. Smith
Edwin Chase

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UNITED STATES PATENT OFFICE.

AXEL WELIN, OF LONDON, ENGLAND, ASSIGNOR TO WELIN QUADRANT DAVIT, A CORPORATION OF NEW YORK.

DAVIT FOR HOISTING AND LOWERING BOATS.

938,447.

Specification of Letters Patent.

Patented Oct. 26, 1909.

Application filed December 2, 1907. Serial No. 404,808.

To all whom it may concern:

Be it known that I, AXEL WELIN, a subject of the King of Sweden, and a resident of London, England, have invented certain new and useful Improvements in Davits for Hoisting and Lowering Boats, of which the following is a specification.

This invention relates to davits for hoisting and lowering boats and is an improvement on, or rather a carrying forward of the inventions disclosed in prior Letters Patent Nos. 680,823 and 711,947, granted to me on August 20, 1901 and October 22, 1902.

It is frequently the case that boats are arranged in rows on the deck of a ship, one inboard the other. The outer boats are usually in position to be lifted by the davits and swung outboard for lowering, and then the boats in the inner row are run on rails to the position recently occupied by the outer boats. The presence of rails on the deck is often objectionable, and by the use of my present invention to the boats in either row can be picked up and swung outboard by the same davits and the rails be thus dispensed with.

The accompanying drawing illustrates in elevation a preferred embodiment of my invention.

A indicates the davit having its lower end in the form of a toothed sector or quadrant *a*, the teeth of which are adapted to mesh with those of a rack *b*. As shown, the sector extends to a substantially equal extent on both sides of the longitudinal axis of the arm.

C indicates a supporting frame which will be rigidly secured to the deck of the vessel and a worm *c* is supported in said frame to have rotary movement only. This worm passes through a threaded nut *d* which is guided on a rod *e* also carried by the frame and is pivotally connected to the davit arm at its junction with the sector, as indicated at *f*, and the center of the pivot is the center from which the arc of the sector is struck. The normal position of the davit is shown in full lines in the drawing where it will be seen that the davit arm is substantially vertical and that the middle teeth of the toothed sector are engaged with the middle teeth of the rack and the nut *d* is about midway the length of the worm *c*, and it will readily

be seen that by rotating the worm *c* in one direction or the other the davit arm may be moved in either direction to an equal degree of inclination from the vertical, as indicated in dotted lines.

Two boats are indicated by D and E, the latter being inboard of D. When the davit is in its vertical position it can be connected to boat D and by rotating the worm in the proper direction the boat D can be swung outboard as indicated in dotted lines on the left of the figure, and after the boat D has been lowered and detached from the davit the latter can then be swung to the position indicated by dotted lines on the right of the figure and be connected to boat E, when the latter may then be swung outboard the same as D was and lowered.

Any means may be employed to rotate the worm *c* but preferably I employ a shaft *h* supported at a right angle to the worm and provided with a wheel *i* at its outer end which has a crank handle *k*. Motion will be transmitted from the shaft *h* to the worm *c* by any suitable gearing such as bevel gears. I have not illustrated these gears as the construction is well known and my invention is not limited to any particular mechanism for rotating the worm *c*.

Having described my invention, I claim:

1. In a davit for hoisting and lowering boats, the combination of a davit arm having a toothed sector at its lower end, a rack on which the sector may roll, and means for moving the davit arm to substantially an equal degree of inclination from the vertical in both directions.

2. In a davit for hoisting and lowering boats, the combination of a davit arm having a toothed sector at its lower end extending to substantially an equal degree on both sides of the axial line of said arm, a rack upon which the sector may roll, and means for moving said arm to an inclination from the vertical in both directions.

3. In a davit for hoisting and lowering boats, the combination of a davit arm having a toothed sector at its lower end extending to substantially an equal degree on both sides of the axial line of the arm, a rack upon which the sector may roll, a worm supported to rotate without longitudinal movement, a threaded nut pivotally con-

nected to the davit arm at its junction with the sector and through which the worm passes, and means for rotating the worm in either direction to move the said arm to an
5 inclination from the vertical.

4. In a davit for hoisting and lowering boats, the combination of a davit arm having at its lower end a sector intersected by the arm, a surface upon which said sector
10 may roll, and means for moving said arm

to an inclination from the vertical in both directions.

In witness whereof, I have signed my name to the foregoing specification in the presence of two subscribing witnesses.

AXEL WELIN.

Witnesses:

GEORGE H. SCHRODER,
EDWIN CRUSE.

Correction in Letters Patent No. 938,447.

It is hereby certified that Letters Patent No. 938,447, granted October 26, 1909, upon the application of Axel Welin, of London, England, for an improvement in "Davits for Hoisting and Lowering Boats," were erroneously issued to "Welin Quadrant Davit, a corporation of New York," as owner of said invention; whereas said Letters Patent should have been issued to *Welin Davit and Lans & De Groot Co., Consolidated, a corporation of New York*, as assignee of the entire interest in said patent, as shown by the record of assignments in this office; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 30th day of November, A. D., 1909.

[SEAL.]

E. B. MOORE,
Commissioner of Patents.

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