J. L. DICKENSON.

SHIPS' WINDLASS.

No. 183,546. Patented Oct. 24, 1876.

Fig. 1

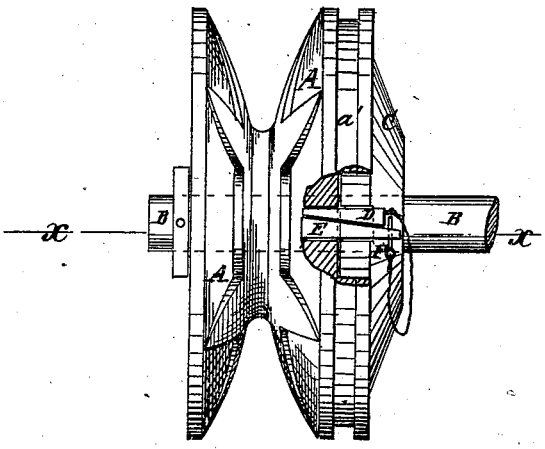


Fig. 2

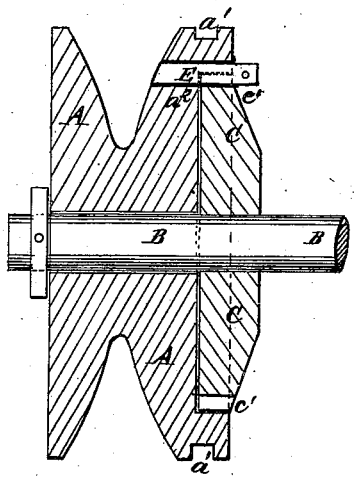
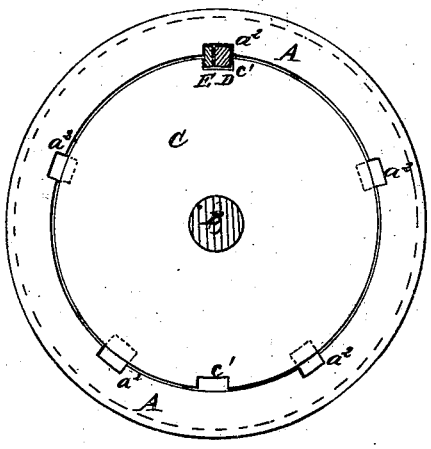


Fig. 3



WITNESSES:

A. W. Almqvist

John Goethals

INVENTOR:

J. L. Dickenson

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOSEPH L. DICKENSON, OF HEMPSTEAD, NEW YORK.

IMPROVEMENT IN SHIPS' WINDLASSES.

Specification forming part of Letters Patent No. **183,546**, dated October 24, 1876; application filed October 2, 1876.

To all whom it may concern:

Be it known that I, JOSEPH L. DICKENSON, of Hempstead, in the county of Queens and State of New York, have invented a new and useful Improvement in Ships' Windlass, of which the following is a specification:

Figure 1 is a side view of the chain-wheel of a ship's windlass, part being broken away to show the construction. Fig. 2 is a cross-section of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a side view of the same, the shaft being shown in section.

Similar letters of reference indicate corresponding parts.

The object of this invention is to improve the construction of a ship's windlass in such a way that should it become necessary to let go the anchor after being raised from the bottom, it may be done instantly and without the possibility of failure.

The invention consists in the plug, made in two parts, with their adjacent sides beveled in opposite directions, in combination with the wheels of a ship's windlass, as hereinafter fully described.

A is the chain-wheel, which revolves loosely upon the shaft B, and upon one part of which is formed a groove, a^1, to receive the brake-strap. In the inner side of the wheel A is formed a circular recess, to receive the wheel C, rigidly attached to, or formed upon, the shaft B. In the wheel A are formed a number of square holes, a^2, in such positions as to be half within and half without the edge or shoulder of the recess in the side of said wheel A. In the edge of the wheel C are formed a number of square notches, c', of half the size of the square holes a^2 of the wheel A, so that when one of the notches c' comes opposite one of the holes a^2 of the chain-wheel A, the said hole a^2 may be fully uncovered, and may receive a plug to rigidly connect the said wheels A C, and cause them to move together.

Heretofore a square plug has been used for connecting the wheels A C, which, when the windlass is under strain, can only be driven out by striking its inner end with a crow-bar, sometimes a dozen blows, more or less, being necessary before the plug can be driven out. This uncertainty and the possible delay makes it dangerous to use this windlass; as, for example, should the anchor be raised from the bottom when the vessel is exposed to a current, and should it become necessary to again let go the anchor, the possible delay in removing the plug might allow the vessel to be driven on shore, or against another vessel.

To guard against this danger I make the plug in two parts, D E, which, upon their adjacent sides, are beveled, inclined, or tapered in opposite directions, as shown in Fig. 1.

The parts D E may be guarded against working loose from the pressure upon them by inserting a pin, F, through a hole in the projecting smaller end of the part E, to rest against the larger end of the part D, as shown in Fig. 1.

With this construction, by drawing or knocking out the pin F, and striking the smaller end of the said part E a single blow with a hammer or other instrument, the said part of the plug will be loosened or knocked out, and the other part may be removed, the wheel A being held from revolving by the brake, so that the wheels A C may be released from each other and the anchor let go in an instant.

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

The plug D E, made in two parts, with their adjacent sides beveled in opposite directions, in combination with the wheels A C of a ship's windlass, substantially as herein shown and described.

JOSEPH L. DICKENSON.

Witnesses:

JAMES T. GRAHAM,

ALEX. F. ROBERTS.