(No Model.)

J. F. BARRETT.

WINDLASS.

No. 524,520. Patented Aug. 14, 1894.

Fig. IV.

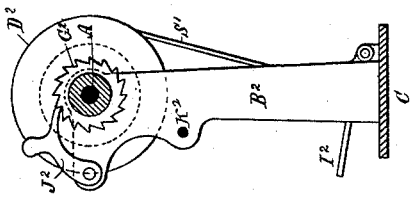


Fig. III.

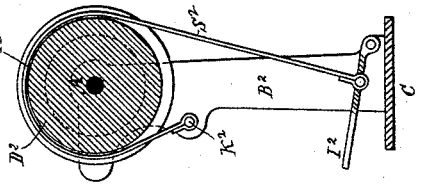


Fig. II.

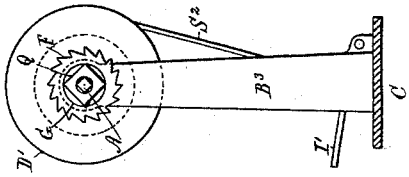


Fig. V.

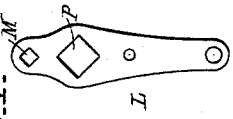
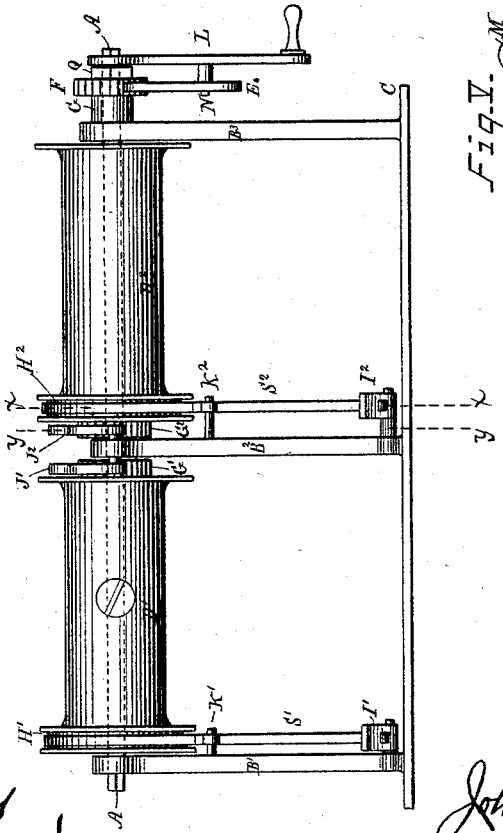


Fig. I.



WITNESSES:

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WINDLASS.

SPECIFICATION forming part of Letters Patent No. 524,520, dated August 14, 1894.

Application filed December 5, 1892. Serial No. 454,083. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. BARRETT, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Windlasses, of which the following is a specification.

My invention relates to improvements in windlasses; and the objects of my improvement are to provide a windlass for the purpose, among others, of hoisting and lowering sails, &c., on boats, vessels, &c., and keeping the halyards clear and free from fouling, thereby greatly lessening the manual labor to be exerted in hoisting and lowering sails, &c. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure I, represents a side view of the windlass. Fig. II, represents an end view omitting the crank. Fig. III, represents a vertical cross section on the line *x*, *x*, Fig. I. Fig. IV, represents a like section on the line *y*, *y*, Fig. I. Fig. V, represents a detail view of the crank.

Similar letters refer to similar parts throughout the several views.

The shaft A, and its standards or legs B′, B^2, B^3, and the bed plate C, constitute the frame work of the windlass.

The roller D′ is firmly secured to the shaft A so as to turn therewith, and to this roller is attached a ratchet wheel G′ engaging with the stop pawl J′; there is also a circumferential groove H′ in the roller D′ to receive a brake strap S′ running from the pin K′ on standard B′ over and through said groove to the pedal I′ on the standard B′.

The roller D^2 is loose and revolves independently upon the shaft A, and to this roller is attached a ratchet wheel G^2 engaging with a stop pawl J^2; there is also a groove H^2 in the roller D^2 to receive a brake strap S^2, running from the pin K^2 on the standard B^2 over and through said recess H^2 to the pedal I^2 on standard B^2. The hub G of the loose roller D^2, carries a ratchet wheel F for the purpose of revolving said roller D^2 in unison with the fixed roller D′ and releasing it at will, which is accomplished by placing the feed pawl E, which is attached to the crank L, by means of pins N, in said ratchet wheel. Said hub of the loose roller D^2 projects through the standard B^3, in which it has a bearing.

Both ends of the shaft A are geared and fitted to a hole or perforation M in the crank L, for the purpose of revolving the fixed roller D′.

In case one man operates the windlass, he places the crank on the end of the shaft nearest standard B^3 and places the pawl E in ratchet F, and turns both rollers by main force of the crank until the throat of the sail is in its proper place; he then releases loose roller D^2, by removing the pawl E from the ratchet F and continues revolving fixed roller D′ until the peak of the sail is in its proper place, where it is held by the action of the pawl J′ on the ratchet wheel G′.

If two men operate the windlass, the crank L, is placed on the hub of roller D^2 marked Q, and another crank placed on the end of shaft A nearest standard B′ and both men revolve their respective cranks until the sail is in its proper place.

To lower the sail he first releases fixed roller D′ by removing the pawl J′ from the ratchet wheel G′ and then releases the loose roller D^2, by removing the stop pawl J^2 from the ratchet G^2. In case the sail runs down too fast, it can be governed by the brakes S′, S^2 in the grooves H′ and H^2 of the rollers, by pressing the pedals I′ and I^2, both of which pedals may be connected together, if desired, by means of a bar.

The bed plate C is, in practice, fastened to the deck of the boat.

The end of the crank L, has two holes or perforations; the one marked M is fitted to the squared ends of shaft A, and the one marked P, is fitted to the squared ends of the hub of the loose roller D^2.

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

In a windlass, the combination of the shaft with squared ends, the fixed roller and loose roller thereon, the squared hub of the loose

roller, the ratchet-wheel and stop-pawl to each roller, the secondary ratchet-wheel to the loose roller, a brake to each roller, the crank with two squared holes one adapted to either end of the shaft and the other adapted to said hub of the loose roller, and the feed-pawl on the crank, for engaging the secondary ratchet-wheel, all substantially as and for the purpose herein described.

JOHN F. BARRETT.

Witnesses:
CHARLES G. COE,
CHAS WAHLERS.