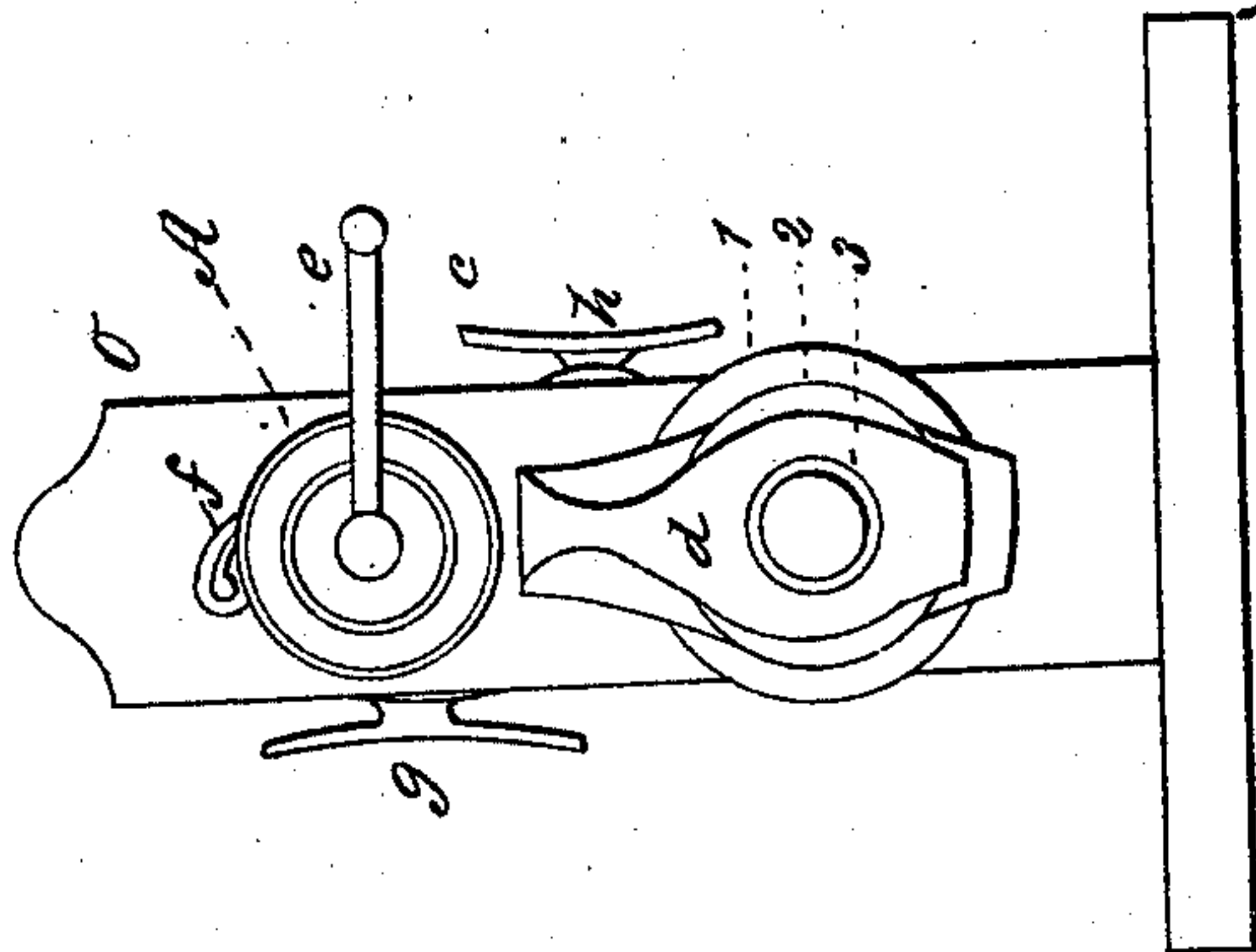
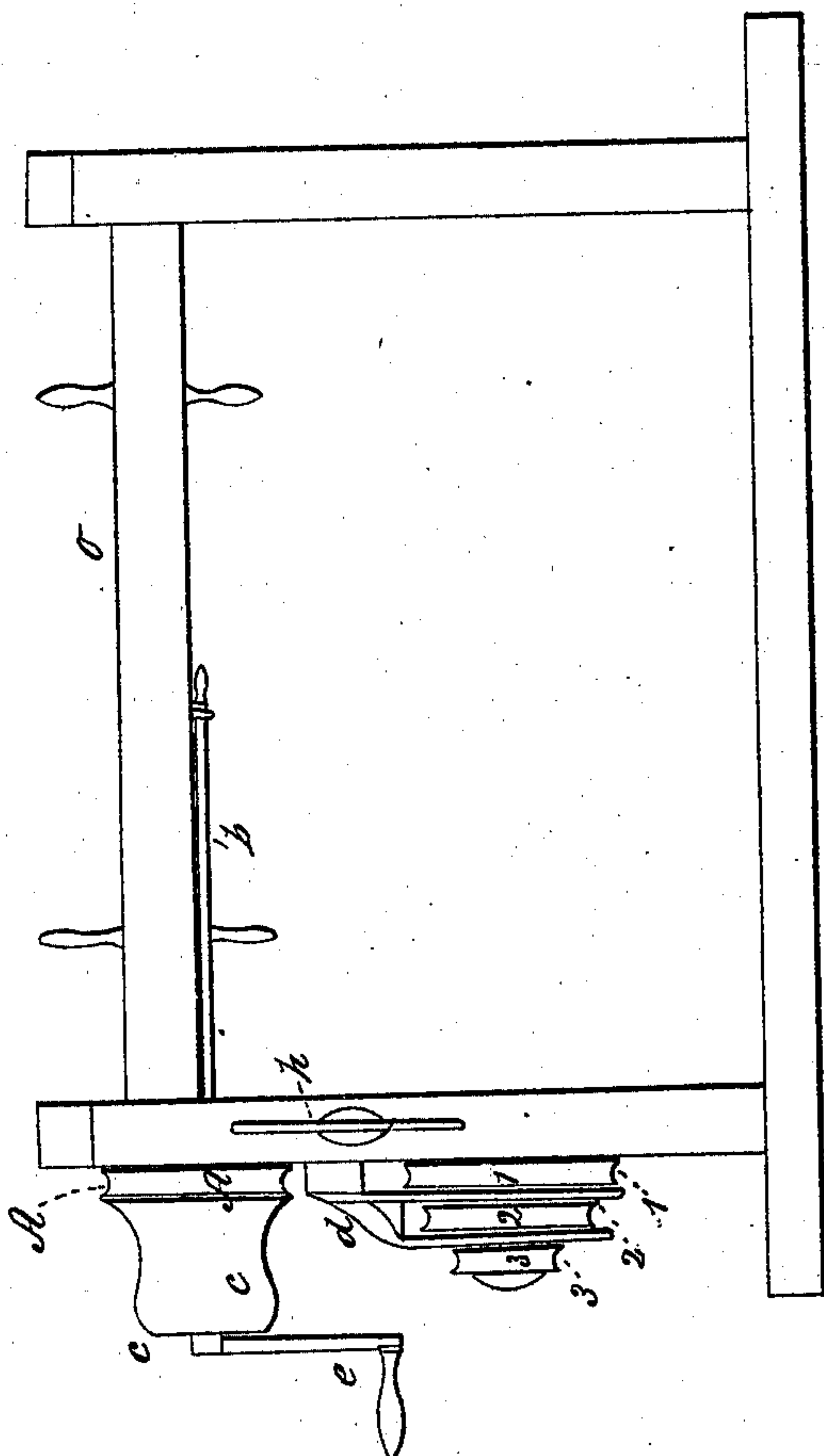


*J. Bryant,*  
*Windlass,*  
*No 16,965,*  
*Patented Apr. 7, 1857.*

*Fig. 2*



*Fig. 1*



# UNITED STATES PATENT OFFICE.

JOEL BRYANT, OF BROOKLYN, NEW YORK.

## HOISTING-WINCH FOR SHIPBOARD.

Specification forming part of Letters Patent No. 16,965, dated April 7, 1857; Reissued September 21, 1858, No. 601.

*To all whom it may concern:*

Be it known that I, JOEL BRYANT, of Brooklyn, in Kings county, State of New York, have invented a new and improved mode of constructing windlasses, in connection with a frame or gallows-bitts, with a combination of mechanical forces, forming a convenient and powerful purchase for hoisting the sails of vessels or their cargoes from the hold and for such like purposes; and I hereby declare that the following is a full and correct description of the same, to wit:

The nature of my invention consists in constructing windlasses or winches with a sheave or pulley on the axle—and inside or back of the boss or head of the said windlasses, and operating in connection with other sheaves, operated by the said windlass or the tackle connecting therewith, for forming a combination of mechanical forces for a purchase for hoisting the sails of vessels, or their cargo, and, for all similar or such like purposes.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation,—reference being made to the accompanying drawings, and to the figures and letters marked thereon—forming a part of this specification.

I construct my windlasses—of which Figure 1, is a perspective view, and Fig. 2, a side view—in connection with a frame or gallows bitts (*o*), and with a sheave or pulley (*A*), set and running on the axle (*b*), of the said windlass (Figs. 1, and 2), and back of its head or boss (*c*), and operating in connection with the sheaves (1, 2, and 3,) in the block (*d*), or its equivalent, as also with the head or boss (*c*), of the said windlass (Figs. 1, and 2), which is turned or operated by the crank (*e*), and held by the ratchet wheel and its pawl (*f*), set in the said frame or gallows bitts (*o*), of the said windlass (Figs. 1, and 2,) and back of the said sheave or pulley *A*. The sheave 3, on the outside of the block (*d*), is mainly intended to aid in holding the fall of the tackle or halyards when the said windless (Figs. 1, and 2,) is in operation for hoisting.

The cleats (*g*, and *h*), on the frame or gallows bitts (*o*), are for the purpose of receiving and making fast the tackle or halyards after the sails are hoisted,—which may be done without removing the tackle or halyards from the said windlass or any part of same,—thereby affording a very great convenience for hoisting—lowering, or securing the halyards or tackle, and this convenience for hoisting, or lowering the sails, and securing the halyards without the necessity of removing the fall from the windlass will be duly appreciated by those who have had experience in such matters, and especially for vessels sailing on rivers (as on the Hudson River for instance, with the wind blowing fresh from certain points of the compass,) where it is often necessary to be almost constantly hoisting and lowering the sails. The advantages afforded by my windlass in this respect, as also in many other respects which might be mentioned, cannot be afforded by any other windlass now known or used. It will also be seen that by having the arrangement herein described, on each side of the frame or gallows bitts, that the “throat” and “peak halyards” may both be hoisted, or lowered at one and the same time, and with far greater ease and convenience than by any other windlass known. In short, this arrangement of mechanical forces, and the combination formed as above described—simply by setting or running a sheave or pulley on the axle of the windlass as aforesaid, (and through the instrumentality of which the combination of forces as above described is made,) has no equivalent, for the purposes for which it is intended; and its advantages—its convenience, and its utility will be at once apparent to all who are acquainted with such matters.

Of course I do not claim the invention of windlasses or winches for hoisting the sails of vessels, or for any other purpose; neither do I claim any of the parts separately or disconnected from each other; but

What I do claim as my invention, and desire to secure by Letters Patent is as follows:—

I claim the construction and use of wind-



lasses or winches, having a sheave, pulley, or wheel, set on the axle of the said windlasses or winches, back of their boss or head, and connecting and operating with other sheaves  
5 or pulleys operated by the said windlasses or winches or by the tackle connecting therewith—for hoisting the sails of vessels, and

for such like purposes—substantially as herein described and set forth.

JOEL BRYANT.

Witnesses:

A. H. BIGELOW,  
MELVILLE BRYANT.

[FIRST PRINTED 1912.]