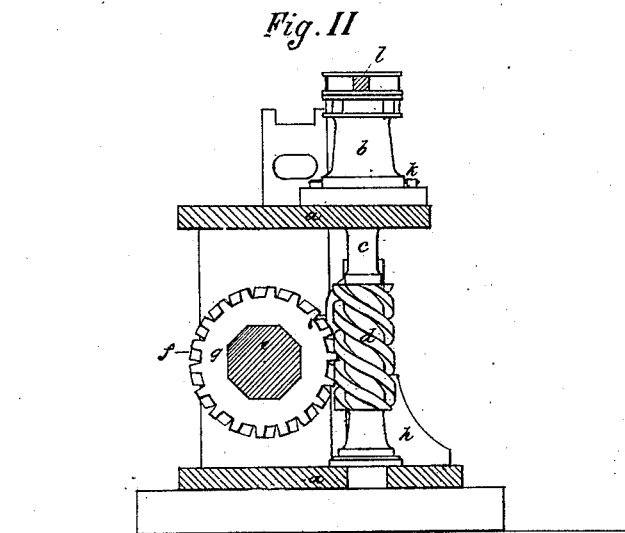
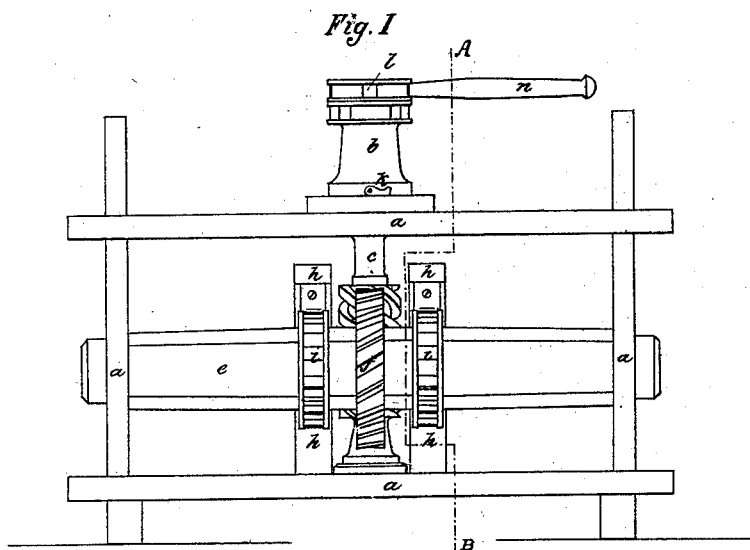


*C. C. Jordan,*

*Windlass.*

*No. 112,148.*

*Patented Feb. 28. 1871.*



Witnesses  
*Newton Cranford*  
*J. H. Pearson*

Inventor  
*C. C. Jordan* by  
*H. W. Reader & Co.*  
attys.

# United States Patent Office.

CHRISTOPHER COATSWORTH JORDESON, OF MONTREAL, CANADA.

Letters Patent No. 112,148, dated February 28, 1871.

## IMPROVEMENT IN SHIPS' WINDLASSES.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, CHRISTOPHER COATSWORTH JORDESON, of the city of Montreal, in the district of Montreal, in the Province of Quebec, master mariner, have invented new and useful "Improvements on Revolving Screw-Windlass;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to annexed drawing, where—

Figure I represents a front elevation of the windlass.

Figure II represents a sectional elevation on line A B, Fig. I.

This invention relates to that class of windlasses which is provided with a vertical screw-shaft, engaging with a toothed horizontal shaft, the former being connected with the windlass proper, and the latter being employed for holding the chain which is wound upon it; and consists in certain details of construction, which shall be fully described hereinafter.

In the drawing hereunto annexed similar letters of reference indicate like parts.

Letter *a* is any ordinary or suitable frame-work, for holding the various parts of the machine in their respective positions.

*b* represents a capstan, which, in its general construction, is of ordinary form.

It is, however, provided with a central opening, which incloses the shaft *c*, upon which latter it revolves freely in either direction.

To check its movement at any desired position pawls, *k*, are provided, the lower ends of which engage with a circular-toothed plate.

Upon the top of shaft *c* is also located a circular disk, provided with proper handspike-holes, which disk is rigidly attached to shaft *c*.

The latter extends downward beneath the disk upon which the capstan rests, and on its lower part a screw, *d*, is formed, as shown in the drawing.

Although a three-threaded screw is therein delineated, I do not confine myself to any particular pitch or any number of threads, it being sufficient to state that they will be in proportion to the amount of leverage required.

I would also remark that the thread of the screw

shown in the drawing is that known by the name of a "box-screw," but, if preferred, a "V-screw" may be used.

The shaft *c* is situated a suitable distance from the barrel of the windlass *e*, for the thread of the screw *d* to intermesh with the teeth *f* of the wheel *g*, properly configured for that purpose; and, if desired, more than one tooth of the wheel *g* may be in gear with the thread or threads of the screw *d*.

The apparatus above described is provided with the ordinary pawl or resistance-posts *h*, and set of pawls biting into suitable toothed wheels *i i* for that purpose.

It is evident that the power of this machine may be increased to almost an unlimited extent by diminishing the pitch of the thread on the shaft *c*, and increasing the diameter or the number of teeth *f* on the wheel *g*, or by repeating the invention, in the same manner, as a compound lever, to give additional power.

The windlass *b* is also provided with the ordinary pawls *k* and with any suitable openings, *l*, for the reception of a corresponding number of handspikes, *n*, by which it is operated.

It will be observed that the capstan *b* can be revolved independently of the shaft *c*.

This capstan is designed for light work, while the other portions of the devices described are designed for heavier work. They can, of course, be used independently of each other.

I do not claim a windlass provided with a vertical screw-shaft which engages with a horizontal toothed shaft; but,

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the capstan *b*, constructed as described, with the shaft *c*, having the screw *d*, when operating as described, for the purpose set forth.

Montreal, 21st day of September, A. D. 1870.

CHRISTOPHER COATSWORTH JORDESON.

Witnesses:

CHARLES LEGGE,  
W. EASTON.