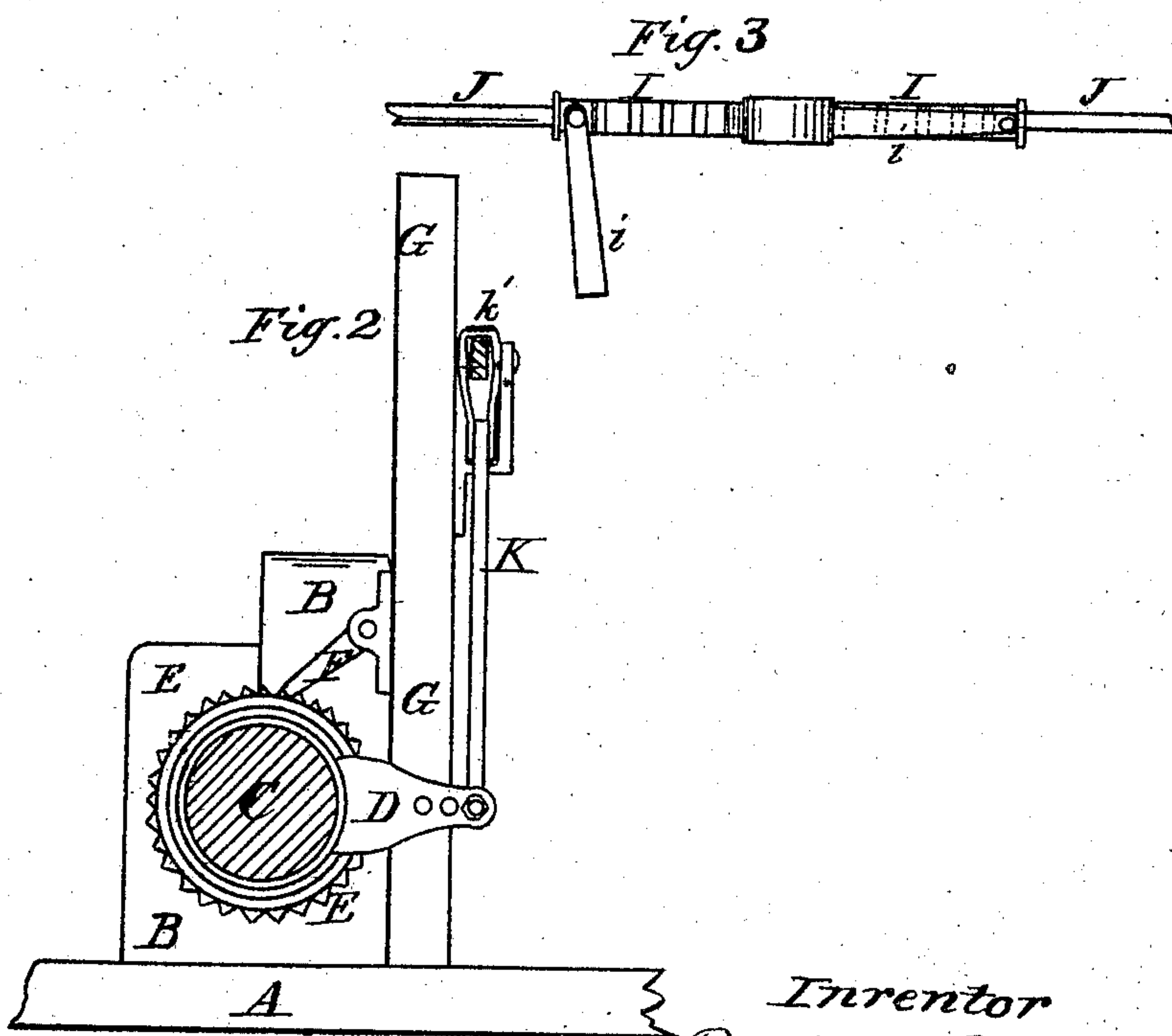
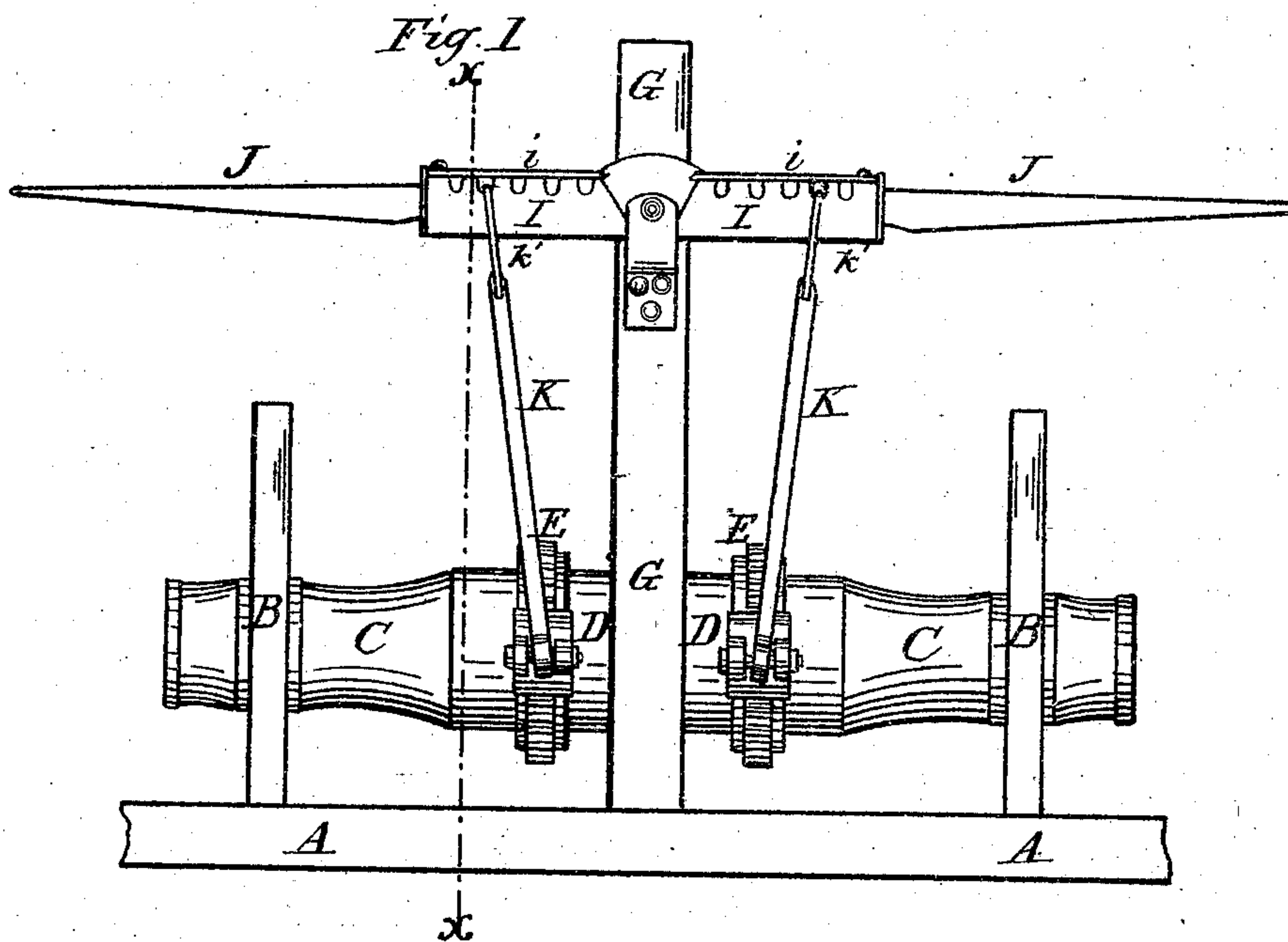


P. Evarts.

Windlass.

N^o 74524

Patented Feb. 18, 1868.



Witnesses
W. C. Ashkettle
J. A. Fraser

Inventor
Porter Evarts
per Munn & Co
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United States Patent Office.

PORTER EVARTS, OF MADISON, CONNECTICUT.

Letters Patent No. 74,524, dated February 18, 1868.

IMPROVEMENT IN 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, PORTER EVARTS, of Madison, in the county of New Haven, and State of Connecticut, have invented a new and useful Improvement in Apparatus for Working Windlasses; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a rear view of a ship's windlass, illustrating my improvement.

Figure 2 is a vertical section of the same, taken through the line *x x*, fig. 1.

Figure 3 is a detail top view of the lever.

Similar letters of reference indicate corresponding parts.

My improvement has for its object to so improve the construction of the apparatus for working a ship's or other windlass, that the operator can instantaneously adjust it to obtain increased power or increased speed, as he may desire; and it consists in the manner in which the pawl-pitmen are adjustably connected to the working lever, as hereinafter more fully described.

A is the deck or floor upon which the windlass is placed, and to which it is secured. B are the bearings or supports in which the journals of the shaft or drum C of the windlass work. D are the cases in which the driving-pawls are pivoted, and which slide in circular grooves formed in the sides of the ratchet-wheels E, attached to the shaft or drum C. F is the holding-pawl, which is pivoted to the post or standard G, and which takes hold of a ratchet-wheel attached to the central part of the drum or shaft C. I is the lever-socket, which is pivoted to the upper part of the post or standard G, and in which the hand-bars or levers J, by which the windlass is operated, are placed. K are connecting-bars, the lower ends of which are pivoted to the pawl-cases D. The upper ends of the bars K have loops *K'* formed upon or attached to them, through which the ends of the lever-socket I are passed. The upper sides of the arms of the socket I, or of the hand-levers J, have notches formed in them, as shown in figs. 1 and 3.

By this construction, by moving the looped ends of the connecting-bars K inwards towards the pivoting-point of the socket I, the short-arm of the levers will be shortened, so as greatly to increase the power of the machine; and, by moving the looped ends of the connecting-bars K outward, or into the outer notches of the socket I, the speed of the windlass will be greatly increased, the short arms of the lever being lengthened. The peculiar manner in which the connection between the bars K and lever-socket I is formed enables the looped ends of said bars K to be shifted, to obtain increased power or increased speed almost instantaneously, and the said shifting can be done with equal facility whether it be light or dark. If desired, the notched part of the socket I may be covered with a pivoted cover, *i*, which prevents ropes or other things from getting into the notches of said socket, to clog or prevent the free working or movement of the loops *k*. The cap or cover *i* also tends to keep the loops *k'* in place when the apparatus is working, but the weight of the parts is usually sufficient for this purpose.

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

The adjustably-connected bars K to the working-lever I J, by means of loops *k'*, formed upon the upper ends of said bars K, and notches formed in the upper side of the working-lever I J, substantially as herein shown and described, and for the purpose set forth.

The above specification of my invention signed by me, this 31st day of December, 1867.

PORTER EVARTS.

Witnesses:

WM. F. McNAMARA,
JAMES T. GRAHAM.