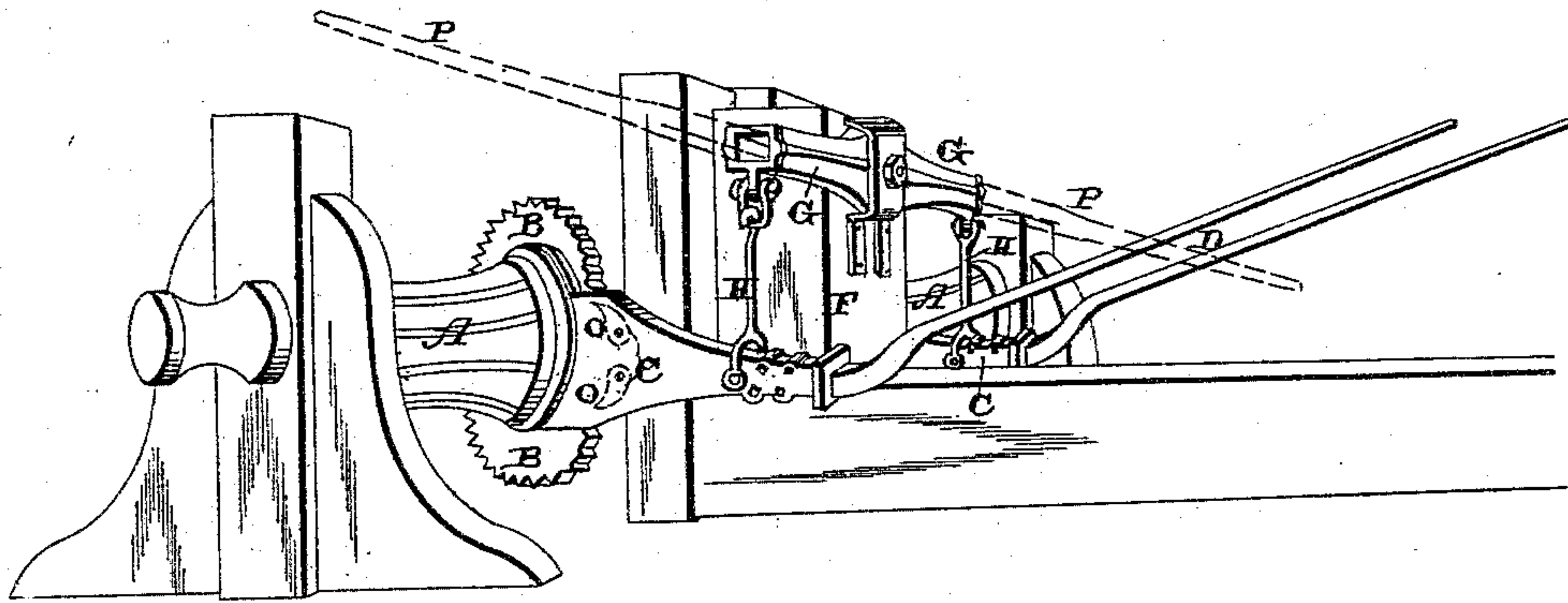


(No Model.)

A. VOSS.
WINDLASS.

No. 401,316.

Patented Apr. 9, 1889.



Witnesses
Edmund P. Ellis,
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Inventor:
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per
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att'y

UNITED STATES PATENT OFFICE.

ADOLPH VOSS, OF GLOUCESTER, MASSACHUSETTS.

WINDLASS.

SPECIFICATION forming part of Letters Patent No. 401,316, dated April 9, 1889.

Application filed September 10, 1888. Serial No. 285,006. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH VOSS, of Gloucester, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Windlasses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in windlasses; and it consists in the combination, with the windlass, of the levers which carry the dogs, a lever extending at an angle to the two levers which carry the dogs, and which is connected to these dog-carrying levers by means of suitable connecting-bars, whereby two different sets of levers can be applied to the windlass at the same time, as will be more fully described hereinafter.

The object of my invention is to place a lever at right angles to those two levers which carry the dogs and connecting the three levers together, each lever being provided with sockets to receive the hand-levers, whereby the amount of power applied to a windlass for raising an anchor can be just doubled.

The accompanying drawing represents a perspective view of a windlass, which embodies my invention.

A represents an ordinary windlass, such as is used on board of ships for raising anchors, and which is provided with the usual ratchets, B, and the operating-levers C, which are swiveled upon the windlass and which are provided with the dogs O, for engaging with the ratchet in the usual manner. These dogs O are thrown into gear with the wheel B, one at a time, according to the direction in which it is desired the wheel shall be turned. When one dog is brought into operation for the purpose of causing the windlass to turn in one direction, the other dog is moved back out of operation. The outer ends of these levers C are provided with sockets, to which the removable hand-levers D are applied in work-

ing the windlass, and which are adapted to be removed when no longer needed. Mounted upon a suitable post or standard, F, and extending at right angles to the two levers C, is a third lever, G, which is provided with a socket at each end to receive a removable hand-lever, P, and which lever is connected at its ends to the outer ends of the levers C by means of the connecting-rods H. The hand-levers applied to opposite ends of the lever G extend outward at right angles to the hand-levers D, and hence four sets of men can be utilized in operating the windlass and raising the anchor. Heretofore windlasses have been supplied with only a single operating-lever, which is connected to the two swiveled parts which carry the dogs, or with two separate and distinct levers C, which have no connection with each other. My invention differs from these, in using two sets of levers, which are placed at an angle to each other and connected together, so that when power is applied to any one of the levers all of them will be operated at the same time, or four gangs of men can be made to operate together in operating the windlass for the purpose of raising the anchor.

By the addition of the hand-levers D not only are the two levers C connected together, but just double the amount of power can be applied to the windlass in case of necessity.

Having thus described my invention, I claim—

The combination of the windlass, the levers C, connected therewith and provided with dogs O, the lever G, placed at an angle to the levers C and connected thereto, and the hand-levers P, which are applied to the ends of the levers C G, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

ADOLPH VOSS.

Witnesses:

GEORGE STEELE, Jr.,
HOWARD E. GAFFNEY.