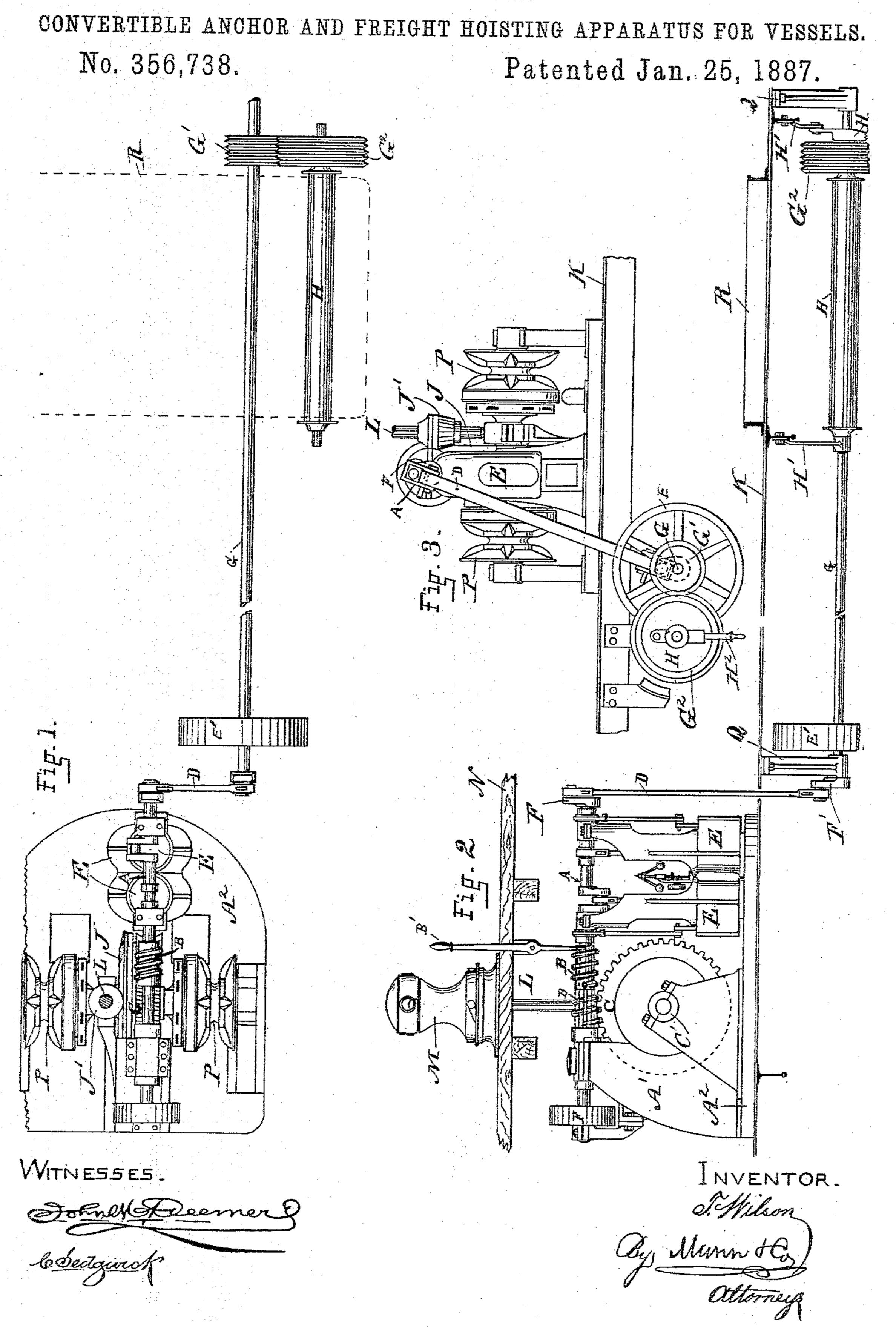
T. WILSON.



## United States Patent Office.

## THOMAS WILSON, OF CLEVELAND, OHIO.

CONVERTIBLE ANCHOR AND FREIGHT HOISTING APPARATUS FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 356,738, dated January 25, 1887.

Application filed October 16, 1886. Serial No. 216,410. (No model.)

To all whom it may concern:

Be it known that I, Thomas Wilson, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Convertible Anchor and Freight Hoisting Apparatus for Vessels, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of an anchor-hoist and capstan-engine, showing the connected freight-hoisting mechanism out of hangers, the capstan-shaft being shown in section and the deck-hatchway indicated in dotted lines. Fig. 2 is a side elevation of the same and the capstan attached, showing the upper and lower decks in sectional elevation; and Fig. 3 is an end elevation without the capstan and showing the lower deck in section.

The invention will first be described in connection with the drawings, and then pointed

A represents a crank-shaft journaled in suitable bearings in the main frame A', mounted upon the base A', which latter rests upon the lower deck, K. The shaft A is revolved by two engines, E E, and upon it is placed the sliding clutch B, which is adapted to engage and disengage the worm-wheel C on shaft C'. Upon this shaft C' is also secured the beveled gear wheel J, which, through the beveled wheel J', imparts motion to the vertical capstan-shaft L, which turns the capstan M, situated upon the upper deck, N. Upon the shaft C' are also secured the chain pulleys or wheels P P, for operating the anchor chains.

To one end of the shaft A is secured the

crank F, which is connected in this instance 40 by the connecting-rod D to the crank F' of the shaft G, held below the deck K in suitable hangers, Q. Parallel with the shaft G, and below, but in line with the hatchway R, is held in suitable pivoted hangers, H'H', the hoisting-45 drum H, which is revolved from the shaft G by the friction-pulleys G'G², attached, respectively, to the shafts G and H.

When the drum H is to be operated, it is to be swung forward by the lever H², to bring 50 the friction-pulley G² into contact with the friction-pulley G'. When the lever H² is released the drum H and pulley G² will swing away from the pulley G', and the shaft G revolve independently of the drum. By sliding 55 the clutch B out of engagement with the wormwheel C the capstan mechanism will be thrown out of action, and by simply sliding the clutch forward by the lever B', or otherwise, the said mechanism may be readily put in motion again. 60

Upon the shaft G is secured the balance-wheel E'; but, in case other than a crank and connecting-rod connection between shaft A and shaft G be used, this may be omitted.

Having thus described my invention, what I 65 claim as new, and desire to secure by Letters Patent, is—

An anchor and freight hoisting apparatus, comprising the capstan mechanism and anchorhoist, the shaft A thereof, the engines E, clutch 70 B, connecting-rod D, and shaft G, arranged between decks, and the hoisting-drum H, arranged in line with the hatchways, substantially as described.

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Witnesses:

HARVEY D. GOULDER, A. H. THOMSON.