J. KNOWLSON, Jr.

Rope-Drums for Windlasses.

No. 150,765. Patented May 12, 1874.

Fig: 1

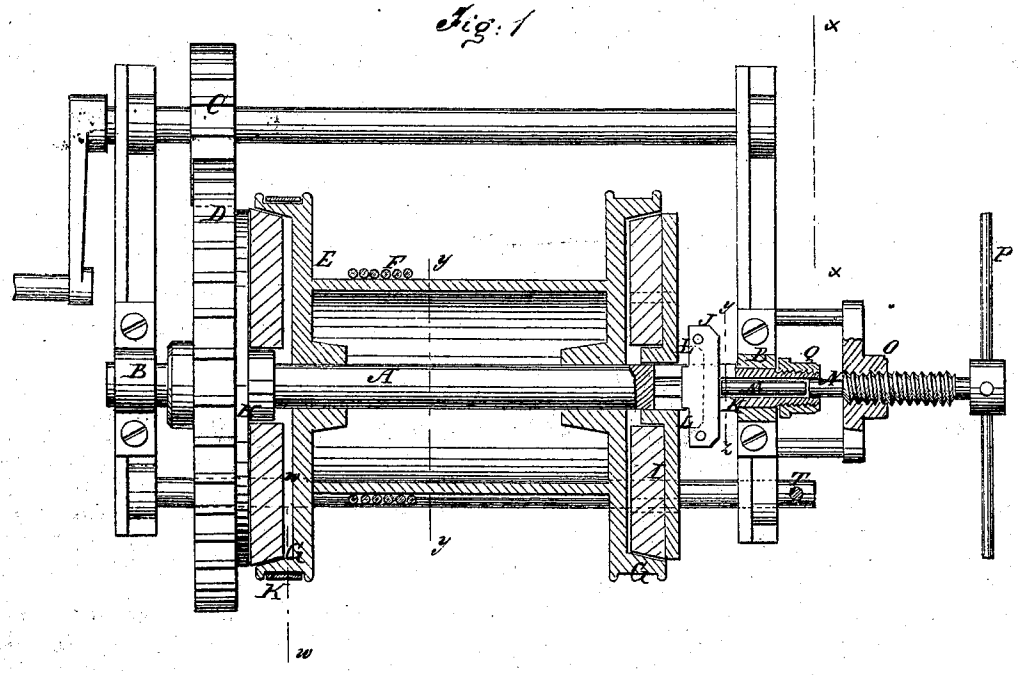


Fig: 2.

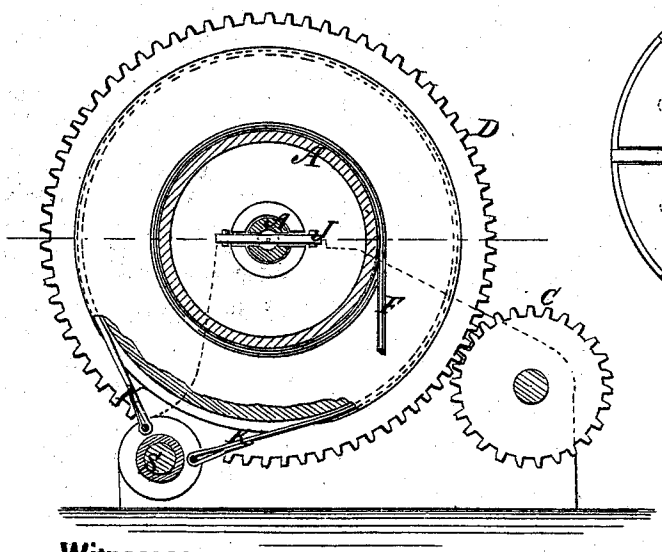
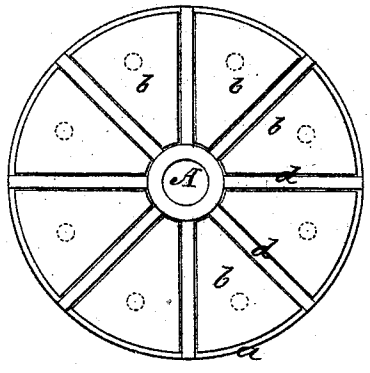


Fig: 3



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN KNOWLSON, JR., OF TROY, NEW YORK.

IMPROVEMENT IN ROPE-DRUMS FOR WINDLASSES.

Specification forming part of Letters Patent No. **150,765**, dated May 12, 1874; application filed March 7, 1874.

To all whom it may concern:

Be it known that I, JOHN KNOWLSON, Jr., of Troy, Rensselaer county and State of New York, have invented a new and Improved Hoisting-Drum, of which the following is a specification:

The invention will first be fully described, and then pointed out in the claim.

Figure 1 is a longitudinal sectional elevation of my improved hoisting-drum. Fig. 2 is a transverse section on the lines *x x*, *y y*, *z z*, and *w w*; and Fig. 3 is a side elevation of one of the friction-disks.

A is a shaft, which is mounted in bearings B, and is continuously revolved by the wheels C and D, which are operated by driving-power in any suitable way. E is the drum for the rope F. It is provided with a conical friction-flange, G, at each end, and arranged loosely on the shaft, so that the latter can turn without it; also so that it can slide lengthwise to some extent. H represents the friction-disk, which is keyed fast to the shaft. I is the movable one. It is prevented from turning on the shaft by the key J, which works in a slot, K, through the shaft, and engages in slots L in the hub of the disk. This key is pushed forward against the disk by the rod M in a central hole in the shaft A, and the rod is pushed forward by the screw pin N, working in the stationary nut O, and turned by the arms P. The endwise thrust on the shaft is sustained by the collar of the nut Q, screwing on said shaft against the bearing B. K is the friction-strap for stopping and holding the drum. It is worked by the shaft S and lever T.

For clutching the drum to the shaft the screw-pin N is turned so as to press the disk I against the drum, and the latter against disk H, and for releasing it the screw is reversed.

In order to have wood surfaces for the friction-disks, and yet have them strong and durable, I make flanged metal plates *a*, for supporting the wood surfaces and bolt on wood pieces *b*, between the flanges, as clearly represented in Fig. 3.

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

The combination, with the movable disk-clutch I, turning with shaft A, of the bracket-nut O, the screw having the end-pin N, the nut Q, sleeve K, and key J, having pin or rod M, as and for the purpose described.

JOHN KNOWLSON, JR.

Witnesses:
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