

(No Model.)

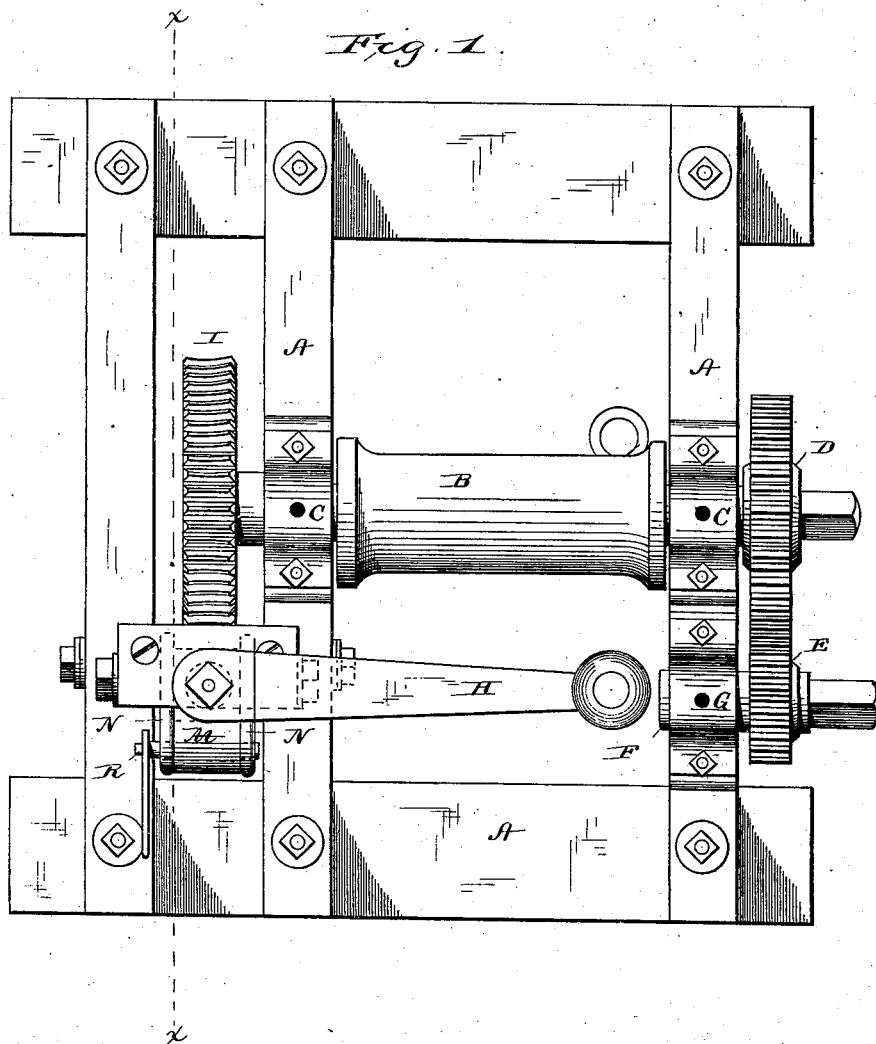
2 Sheets—Sheet 1.

T. MAXON.

WINDLASS.

No. 260,307.

Patented June 27, 1882.



Witnesses.

Edwin L. Jewell.

H. Aubrey Gaulmin.

Inventor.

Thomas Maxon.

By C. M. Alexander
Attorney

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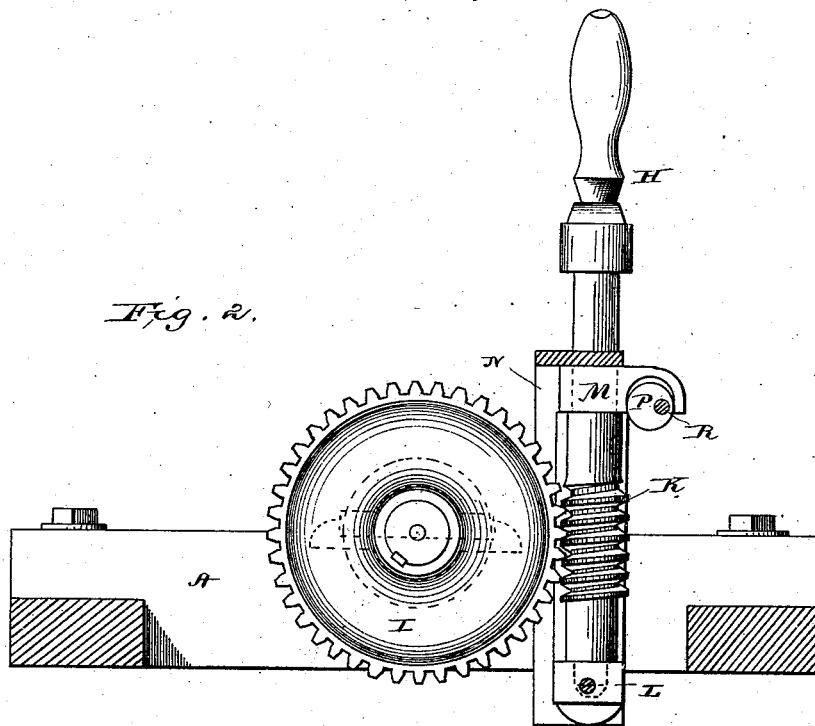
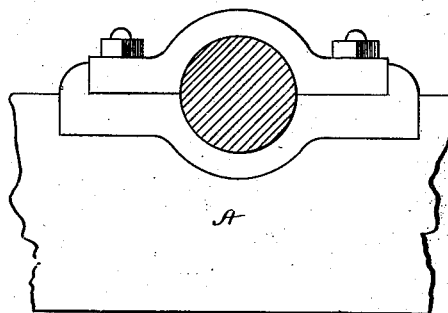


Fig. 3.



Witnesses,
Edwin L. Yemell.
H. Aubrey Toulmin

Inventor,
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By C. M. Alexander.
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UNITED STATES PATENT OFFICE.

THOMAS MAXON, OF DAYTON, OHIO, ASSIGNOR OF ONE-HALF TO JAMES W. CARPENTER, OF SAME PLACE.

WINDLASS.

SPECIFICATION forming part of Letters Patent No. 260,307, dated June 27, 1882.

Application filed April 19, 1882. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MAXON, of Dayton, in the county of Montgomery, and in the State of Ohio, have invented certain new and useful Improvements in Windlasses; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to certain improvements in windlasses; and it has for its objects to provide certain improved means whereby power may be applied to the drum, as more fully hereinafter specified. These objects I accomplish by the apparatus and mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a top view of the improved windlass; Fig. 2, a sectional view taken on the line *xx* of Fig. 1; and Fig. 3 a detached view, showing the method of constructing the bearings or journal-boxes of the respective shafts of the apparatus.

The letter A indicates the frame of the apparatus, which may be constructed of heavy timbers or other material possessing the requisite solidity and strength.

B indicates the drum of the windlass, which is constructed as usual, and is provided with journals having bearings C. The journals project at each end beyond their bearings, and one is provided with a gear-wheel, D, which intermeshes with a pinion, E, which is mounted on a short shaft, F, journaled in a bearing, G.

The ends of the shafts above mentioned are squared for the reception of a crank, H, by means of which they may be operated. The shaft of the drum has at one end a gear-wheel, I, which intermeshes with a worm, K, the lower end of which is journaled in a swiveled bearing, L, the upper portion of the worm being journaled in a sliding bearing, M, adapted to move between lugs N in such manner as to advance the worm to the gear-wheel or withdraw it, in order to throw the said wheel into or out of gear as occasion requires. The said bearing is operated by means of an eccentric, P, mounted on a short shaft, R, journaled in bearings in the lugs before mentioned, the

shaft being turned by a suitable key provided for the purpose.

The key or crank is adapted to fit the squared ends or extensions of the respective shafts before mentioned, so that different speeds or powers may be applied to the drum, as may be required. For instance, where it is required to work quickly upon light weights, the crank may be applied directly to the drum-shaft. When heavier work is required the crank may be applied to the pinion-shaft, and for very heavy work it may be applied to the worm-shafts. It will be seen that by this construction an apparatus that will do the work and will be equivalent to three separate machines is obtained.

The bearings for the respective journals are constructed, as indicated in Fig. 3, with abutments at the ends of the lower section, the upper section setting between said abutments, the two sections being bolted together, as usual. The abutments, it is evident, will obviate the tendency of the parts to separate when subjected to a heavy strain. The screw is provided with a squared end for the crank H.

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

1. In combination with the drum and the cog-gearing, the worm-screw journaled in movable bearings, and the eccentric by which it is thrown into and out of gear, substantially as specified.

2. In a windlass, the drum and its shaft, provided with a rectangular extension, a cog-wheel, D, and a gear-wheel, I, an auxiliary shaft having a pinion, E, and a rectangular extension, and a worm journaled in movable bearings, the said worm having a rectangular extension, whereby various speeds and powers may be applied to the drum by changing the crank from shaft to shaft, substantially as specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 27th day of March, 1882.

THOMAS MAXON.

Witnesses:

C. H. RAYMOND,
J. H. MAHONEY.