G. H. PITTMAN.

Improvement in Hoisting-Machines.

No. 131,902. Patented Oct. 1, 1872.

Fig. 1.

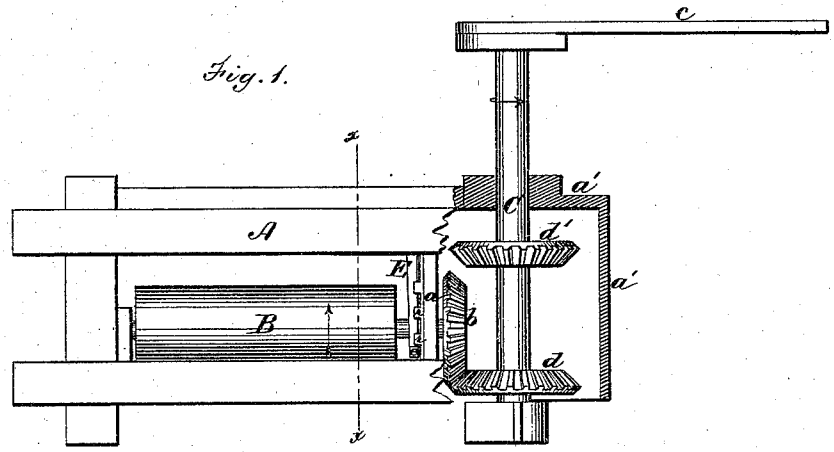


Fig. 2.

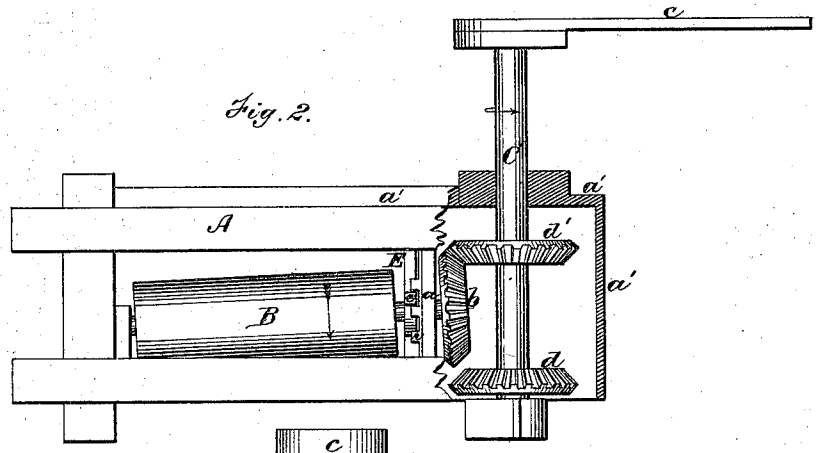
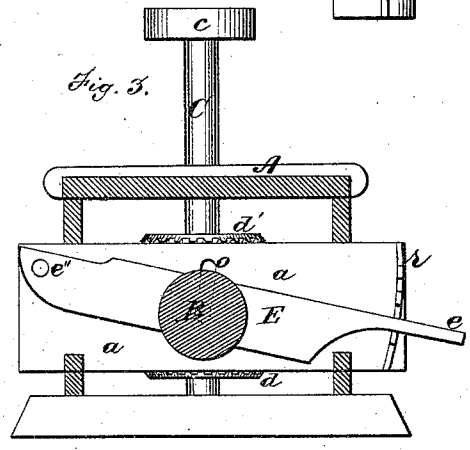


Fig. 3.



Witnesses.
C. F. Brown
H. F. Ellsworth

Inventor:
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By his Attys.
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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

GEORGE H. PITTMAN, OF McCONNELLSBURG, PENNSYLVANIA.

IMPROVEMENT IN HOISTING-MACHINES.

Specification forming part of Letters Patent No. **131,902**, dated October 1, 1872.

To all whom it may concern:

Be it known that I, GEORGE H. PITTMAN, of McConnellsburg, in the county of Fulton and State of Pennsylvania, have invented a new and Improved Hoisting-Machine; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a side elevation and partial section, the draft-roll being in gear with the lower wheel on the driving-shaft; Fig. 2 is a similar view representing the draft-roll in gear with the upper wheel; and Fig. 3 is a cross-section in line *x x* of Fig. 1.

Similar letters of reference in the accompanying drawing denote the same parts.

The object of this invention is to provide for public use an improved hoisting-machine of simple construction and convenient operation, in which the movement of the draft-roll or pulley may be reversed at pleasure, so as to raise or lower the weight at will without reversing or stopping the movement of the crank by which the power is applied.

To this end the invention consists in the improved combination of operating parts which I will now proceed to describe.

In the drawing, A is the frame of the machine, which may be of any suitable form and construction. B is the roller, pulley, or shaft which supports the rope or chain that raises and lowers the weight. *b* is a bevel-gear wheel on the end of said shaft; and C is a vertical shaft, turned by a crank, *e*, and carrying inside of the frame two horizontal bevel-wheels, *d d′*, arranged in such relation to the wheel *b* that the latter when lowered gears with the lower wheel *d* and rotates in the direction shown by the arrow in Fig. 1; when raised, gears with the upper wheel *d′* and rotates in the direction shown by the arrow in Fig. 2; and when held in a horizontal position is not in gear at all, and consequently ceases to rotate.

To place the movement of the shaft under the control of the operator, I make the journal-box nearest to the shaft C vertically adjustable by means of a hand-lever, E. This lever extends across the machine, being pivoted at *e′* to a stout cross-piece, *a*, attached to the frame, the opposite end of the lever projecting beyond the frame and cross-piece to form a convenient handle, *e*. The shaft or its elongated journal extends through the cross-piece *a* in a curved slot, *o*, provided to accommodate its movements. The top and end of the frame are covered, as shown at *a′*, and this cover, together with the cross-piece *a*, boxes in the gear-wheels and prevents them from injury by the weather, dust, &c. A rack, *r*, is affixed to the side of the partition or cross-piece *a*, which engages with the lever E to hold it at three points—viz., to bring the wheel *b* in gear with either of the horizontal wheels, or to hold it out of gear midway between them.

Having thus described my invention, what I claim as new is—

The improved hoisting-machine herein described, combining the frame A, the shafts B C, the crank *c*, the gear-wheels *b d d′*, the slotted cross-piece *a*, and the lever E, and rack *r*, substantially as described, for the purposes set forth.

GEORGE H. PITTMAN.

Witnesses:

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ABRAHAM W. FOX.