L. & P. K. Dederick,

Horse Power,

No. 36,142, Patented Aug. 12, 1862.

Fig: 1.

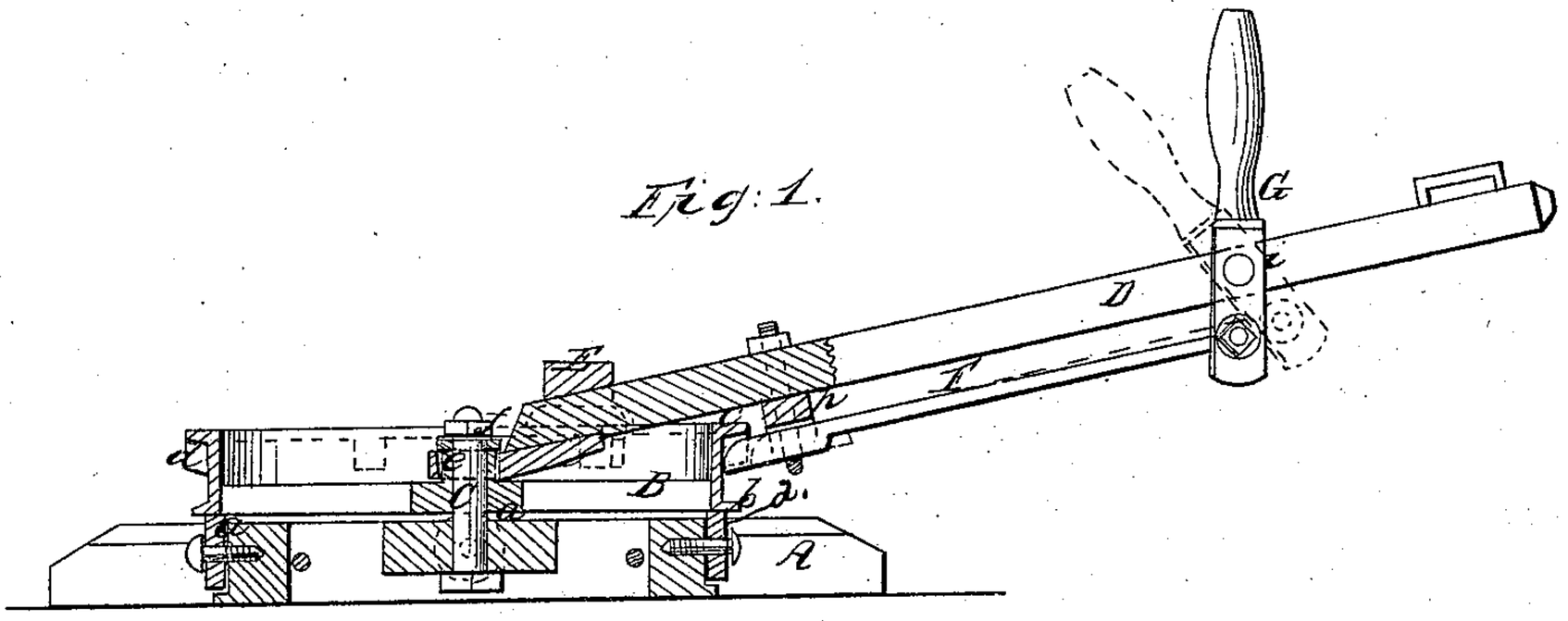
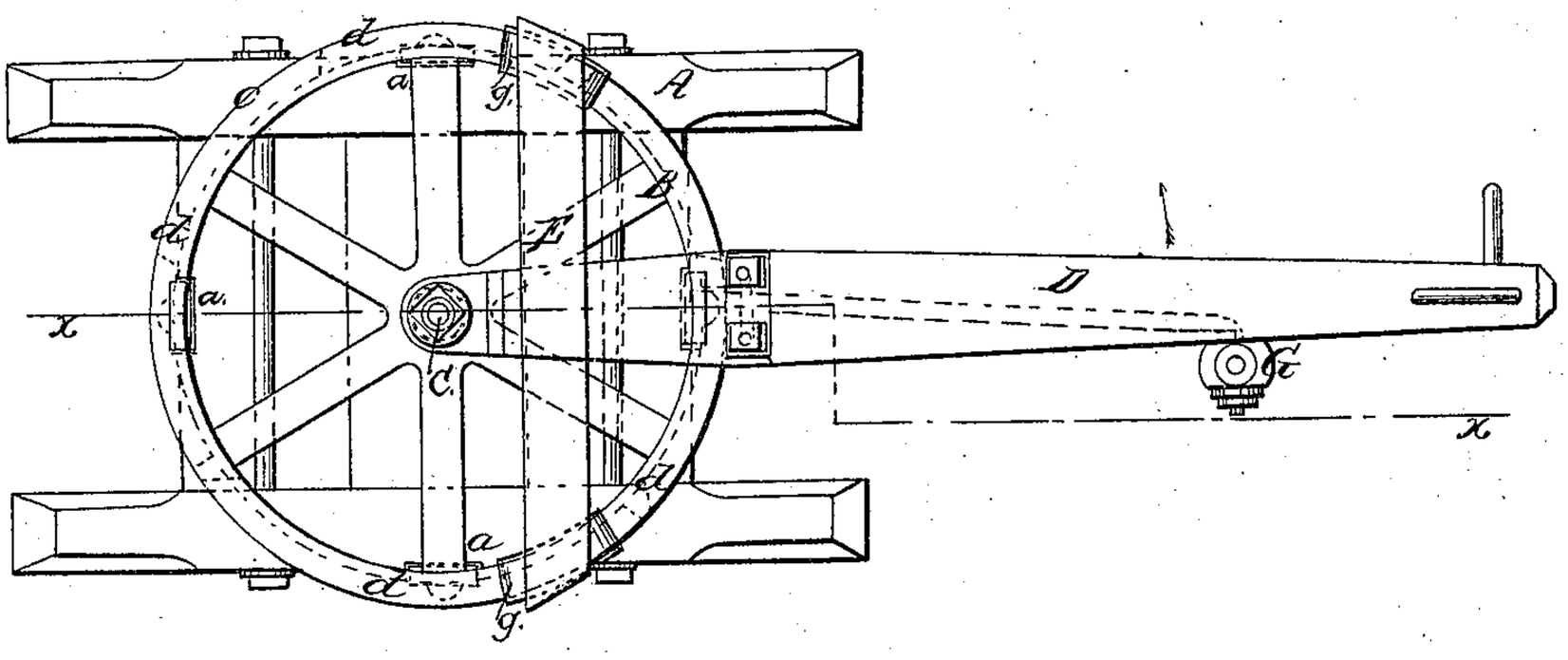


Fig: 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

L. DEDERICK AND P. K. DEDERICK, OF ALBANY, NEW YORK.

IMPROVEMENT IN HORSE-POWER WINDLASSES.

Specification forming part of Letters Patent No. **36,142**, dated August 12, 1862.

To all whom it may concern:

Be it known that we, L. DEDERICK and P. K. DEDERICK, both of Albany, in the county of Albany and State of New York, have invented a new and Improved Horse-Power Windlass; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical central section of our invention, taken in the line *x x*, Fig. 1. Fig. 2 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

The object of this invention is to obtain a horse-power windlass of simple construction, which will admit of the article or machine which is operated upon by the horse-power being released from the latter at any moment at the will of the attendant.

The invention is designed to be applied to the lifting of weights and the operating of presses, such as have their followers arranged to work from the bottom of the press-box upward, whereby the weights may be lowered at any speed and the follower allowed to fall when necessary without backing the horse.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

A represents a rectangular frame, on which a horizontal wheel, B, is placed, said wheel being fitted loosely on a vertical stationary shaft, C, secured centrally in the frame A, as shown in Fig. 1. The frame A has friction-rollers *a* attached to it, on which the wheel B rests, the lower edge of the latter being provided with a flange, *b*, as shown in Fig. 1. The upper edge of the wheel B is also provided with a flange, *c*, which projects outward, and is provided at its under side with lugs *d* at suitable and equal distances apart, as indicated by the dotted lines in Fig. 2.

D is a sweep, the inner end of which is fitted loosely on the upper part of the hub *e* of the wheel, and secured thereon by a nut, *f*. This sweep has a cross-bar, E, attached to it near its inner end, said bar being provided with shoes *g g*, one at each end, which are directly over the upper flange, *c*, of the wheel, as shown in Fig. 2.

To the under side of the sweep D there is fitted a slide, F, the inner part of which works in a suitable guide, *h*, the outer end being attached to a lever, G, which is connected to the sweep D by a fulcrum-pin, *i*.

The operation is as follows: The article to be hoisted or operated upon is connected to the wheel B by a rope or chain, and the sweep D is connected to the wheel B by shoving the slide F inward through the medium of the lever G, the slide F serving as a pawl in consequence of its inner end coming in contact with one of the lugs *d*. The sweep D being drawn around by the horse, the rope or chain is wound upon the wheel B, and the article thereby hoisted or elevated, and when it is to be lowered the slide F is thrown outward from the wheel B, so as to release the latter from the sweep, and the elevated article will fall by its own gravity. The speed of the falling article is graduated by the attendant pressing down upon the outer part of the sweep, which causes the shoes *g* to bear upon the upper surface of the wheel B, and with greater or less friction, according to the pressure on the sweep. In hoisting articles—such, for instance, as coal—from vessels it will be seen that the filled bucket may be lowered without backing the horse, and in operating presses which have their followers arranged to work from the bottom of the press-box upward the follower, when fully elevated, may, like the coal-bucket, be lowered without backing the horse and the speed of the descent graduated as desired.

The slide F, besides serving as a pawl to connect the sweep D with the wheel B, also serves, in consequence of its inner end being under the upper flange, *c*, of said wheel, to prevent the sweep from rising or being thrown upward out of proper position—a contingency liable to occur if the horse be suddenly stopped.

The invention, it will be seen, is exceedingly simple and efficient, may be constructed at a very moderate cost, and contains no parts liable to get out of repair or become deranged by use.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the wheel B, sweep D, and slide F, or its equivalent, arranged as shown, to admit of the connecting of the wheel

to the sweep and the detaching of the former from the latter, for the purpose herein set forth.

2. The cross-bar E, attached to the sweep D and provided with shoes *g g*, arranged relatively with the wheel B, to serve, in connection with the sweep, as a brake for the latter, as set forth.

3. The slide F, attached to sweep D, and the lugs *d* and flange *c* on the wheel B, arranged as shown, to admit of a ready connection between the sweep and wheel and to keep the former in proper position with the latter, as set forth.

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