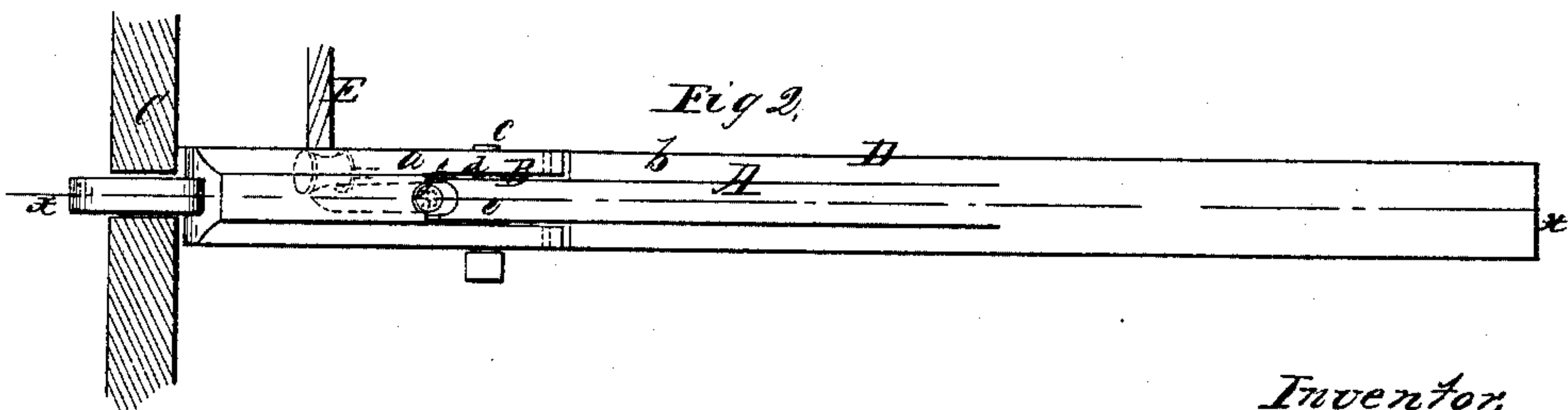
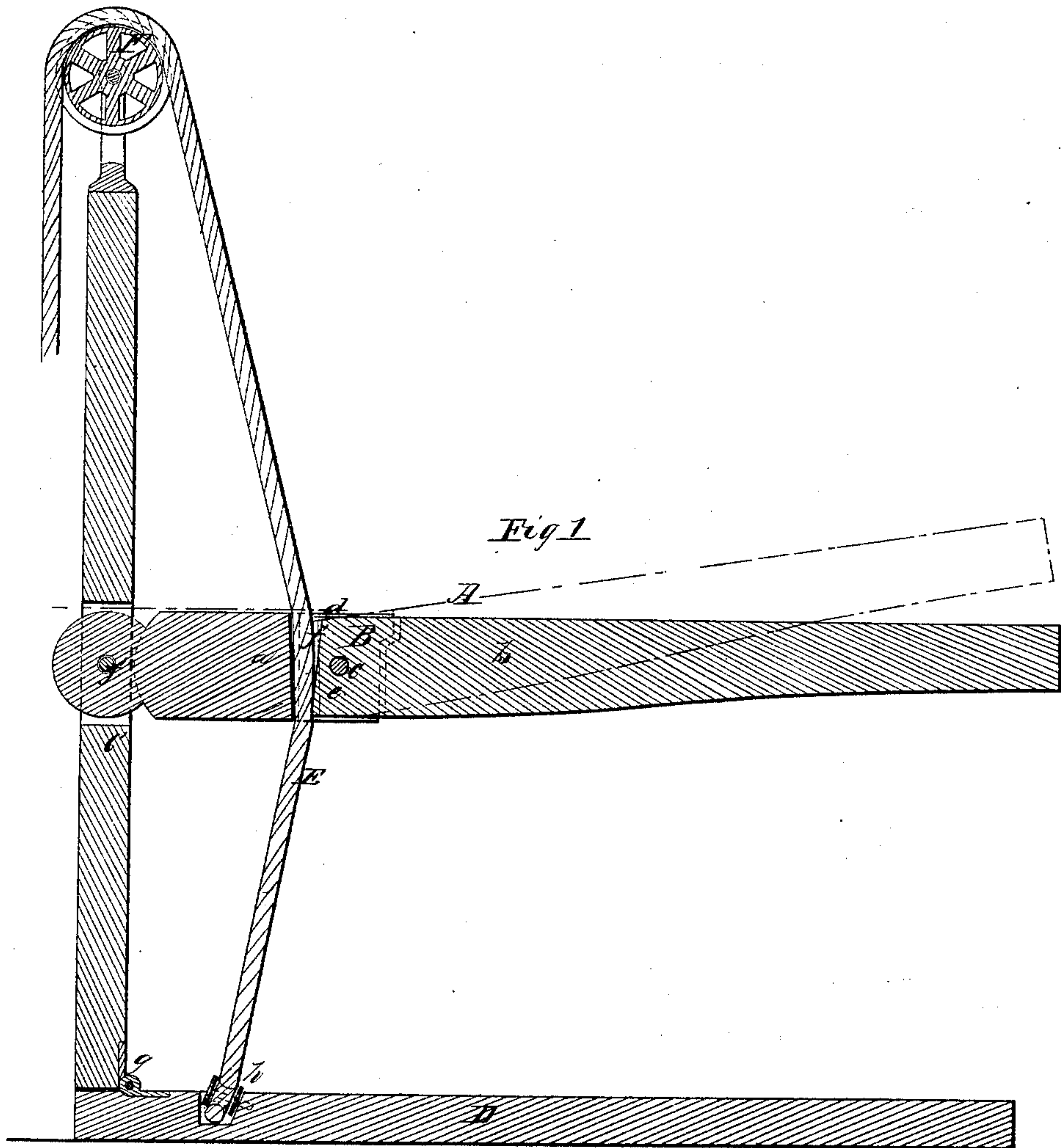


*J. Heaton,*

*Elevator.*

*N<sup>o</sup> 34,958.*

*Patented Apr. 15, 1862.*



*Witnesses:*  
*G. W. Reed*  
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# UNITED STATES PATENT OFFICE.

JOHN HEATON, OF FLUSHING, NEW YORK.

## IMPROVEMENT IN RAISING OR LIFTING WEIGHTS.

Specification forming part of Letters Patent No. 34,958, dated April 15, 1862.

*To all whom it may concern:*

Be it known that I, JOHN HEATON, of Flushing, in the county of Queens and State of New York, have invented a new and useful Improvement or Device for Raising or Lifting Weights, and which I term a "Lever-Clamp;" and I 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 side sectional view of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a horizontal section of the same, taken in the line *y y*, Fig. 1.

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

The object of this invention is to obtain a simple and economical device to assist in raising and lifting weights, one which may be readily applied to its work, be portable and adapted for general or common use among mechanics, farmers, &c., and where the cumbersome and expensive machines constructed for such purpose would be impracticable.

To this end the invention consists in the employment or use of a jointed lever arranged in such a manner as to form a self-adjusting clamp and operate on a rope which passes over a pulley attached to a folding frame, substantially as hereinafter fully shown and described.

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

A represents a lever which is formed of two parts *a b*, connected by a joint B. This joint is formed by a pintle *c*, which passes through a mortise *d* in the outer end of the part *a* of the lever, and also through a tenon *e* on the inner part *b* of the lever, which tenon is fitted in the mortise *d*. The end of the tenon *e* does not abut against the inner end of the mortise *d*, a space *f* being allowed between them, and the end of the tenon *e* is made somewhat beveling, its lower end being nearer the back end of the mortise *d* than its upper end, as shown clearly in Fig. 1. The two parts of the lever A are allowed to work freely on the pintle *c*, and the outer part of *a*

is fitted in an upright C, and may be secured therein by a fulcrum-pin *f'*, if desired. In small implements the fulcrum-pin may be dispensed with. The lower end of the upright C is attached by a hinge or joint *g* with a base-plate D, which rests upon the ground or floor.

E is a rope, which passes through the space *f* in the joint of the lever A, over a pulley F at the upper part of the upright C, and under a pulley *h* on the base-plate D.

The implement is used as follows: The weight to be raised or lifted is attached to the end of the rope E, which passes over pulley F, and the outer end of the part *b* of the lever is grasped by the operator with one hand, while the other grasps the end of the rope which passes under the pulley *h*. The lever A is raised and lowered by the operator, and each time the lever descends the rope is clamped in the joint of the lever in consequence of the lower part of the tenon *e* pressing the rope against the back end of the mortise *d*. The lever A, in consequence of thus clamping the rope, admits of the latter being operated upon by leverage-power. The slack of the rope is taken up by the operator at the termination of each downward movement of the lever A, and the rope and weight are held or retained by the operator with one hand, while the lever is raised by the other to obtain a succeeding hold on the rope, the lever slipping freely over the rope while being raised in consequence of the lower end of the tenon *e* being drawn out from the lower part of the back end of the mortise *d* as the lever is elevated. (See red outline in Fig. 1.) Thus by this simple device weights may be raised or lifted with great facility.

The device when not in use may be compactly folded by detaching the lever A from the upright C and then folding the upright C and base-plate D together. The parts may be readily adjusted in proper position for use when required, and the upright C may, if necessary, be braced in any proper manner from the base-plate D.

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

1. The lever A, formed of two parts *a b*, connected by a joint B, arranged, as shown, to admit of a rope E passing through it and to clamp the rope as the lever descends and to release the rope and slip over it as the lever is raised, for the purpose specified.

2. The combination of the lever A, rope E,

upright C, and base-plate D, all constructed and arranged for joint operation, as and for the purpose set forth.

JOHN HEATON.

Witnesses:

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