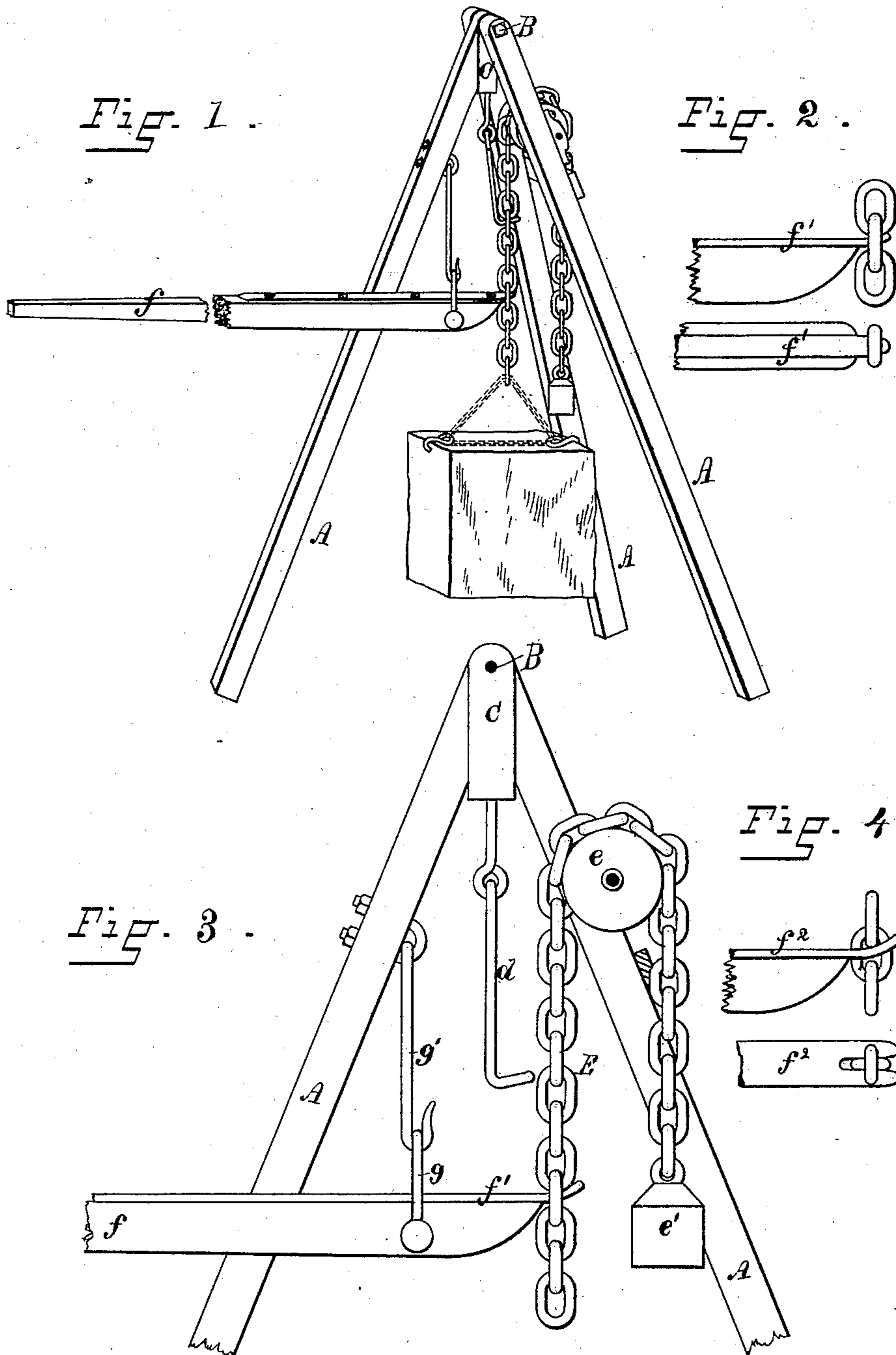


(No Model.)

I. H. YEAW.
DERRICK.

No. 285,721.

Patented Sept. 25, 1883.



WITNESSES:

Wm. L. Croft
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INVENTOR:

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UNITED STATES PATENT OFFICE.

ISAAC H. YEAU, OF HOPE, RHODE ISLAND, ASSIGNOR OF ONE-HALF TO
JOSEPH KNIGHT, OF SAME PLACE.

DERRICK.

SPECIFICATION forming part of Letters Patent No. 285,721, dated September 25, 1883.

Application filed June 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, ISAAC H. YEAU, of Hope, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Derricks; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

10 This invention has reference to an improvement in derricks used for raising heavy weights and for pulling the stumps of trees.

It consists in the peculiar construction of the derrick and the application of the lever
15 directly on the chain, as will be more fully set forth hereinafter.

Figure 1 is a perspective view of my improved derrick. Fig. 2 is a side and top view of the end of the operating-lever. Fig. 3 is
20 a side view of the derrick, showing one of the standards removed. Fig. 4 is a side and a top view of a modification of the end of the operating-lever.

In the drawings, A A A are the three standards or legs of the derrick. B is the bolt by which the upper ends of the standards A A are united. C is a block, secured also by the bolt B, and from which the hook *d* is suspended. E is the hoisting-chain, which passes over
30 the wild-cat or sheave *e*. One end of the chain is secured to the weight to be raised—represented in Fig. 1 as a stone—and the other end is provided with the weight *e'*. *f* is the operating-lever; the end of which is formed into
35 either the tongue *f'*, which enters the links in the chain E, or the fork *f''*, which can be entered between the links of the chain E, as is shown in Figs. 2 and 4, respectively. The lever *f'* is supported by the loop *g* from the hook
40 *g'* near the chain E, so that the long lever *f* forms a powerful leverage, and any strain exerted on the free end of the operating-lever *f* is greatly multiplied and exerted with great force on the chain E, so that heavy weights
45 may be raised with ease, step by step, by successively inserting the end *f'* or *f''* into the chain and raising the same with the weight.

The operation of my improved derrick is as follows, viz: The stone or the stump being secured to the chain E, which is passed over the
5 wild-cat *e*, so that the weight *e'* will take up all slack, the tongue or forked end of the lever *f* is now inserted in the chain, when the free end is raised to its greatest height. The free end of the lever *f* is now depressed, and the
6 stone, stump, or other article raised. The hook *d* is now entered in the chain to support the weight, the tongue or forked end of the lever *f* is withdrawn, the free end raised, the
7 tongue or forked end inserted in the chain, and the stone or stump is again raised by depressing the free end of the lever *f*.

The wild-cat *e* may be provided with a ratchet-wheel and pawl, so that the hook *d* need not be entered each time the weight is raised unless the weight is too great to be supported by
8 the wild-cat and ratchet.

The construction of the derrick is so simple, and the strains come so directly on the operating-lever and hook *d*, that when these are
7 made strong enough the derrick is not liable to get out of order. It can be constructed by any country blacksmith and operated by the roughest farm-hands.

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

1. In a derrick, the combination, with the standards A A A, the block C, and bolt B, of the chain E, the wild-cat *e*, weight *e'*, the lever *f*, loop *g*, and hook *g'*, constructed to raise
8 weights by successively entering the lever *f* into the chain and raising the same, as described.

2. The combination, with the standards A A A, the block C, and bolt B, of the chain E, the operating-lever *f*, supported on a suspended fulcrum, as described, and constructed to raise the chain E, and the hook *d*, constructed to hold the chain when raised, as described.

ISAAC H. YEAU.

Witnesses:

J. A. MILLER, Jr.,
M. F. BLIGH.