

A. FICHT.
LIFTING-MACHINE.

No. 178,620.

Patented June 13, 1876.

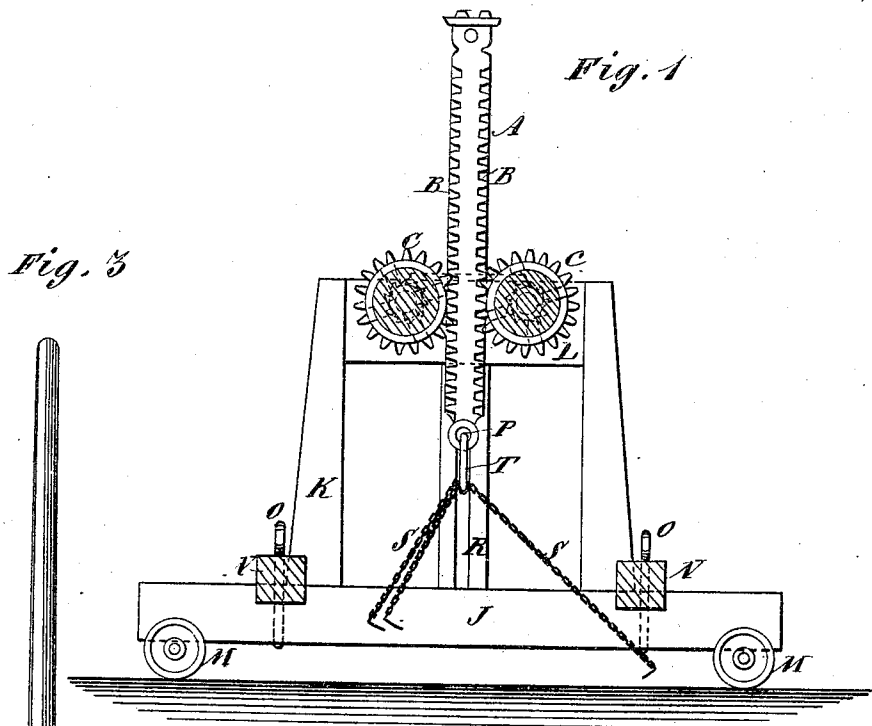


Fig. 3

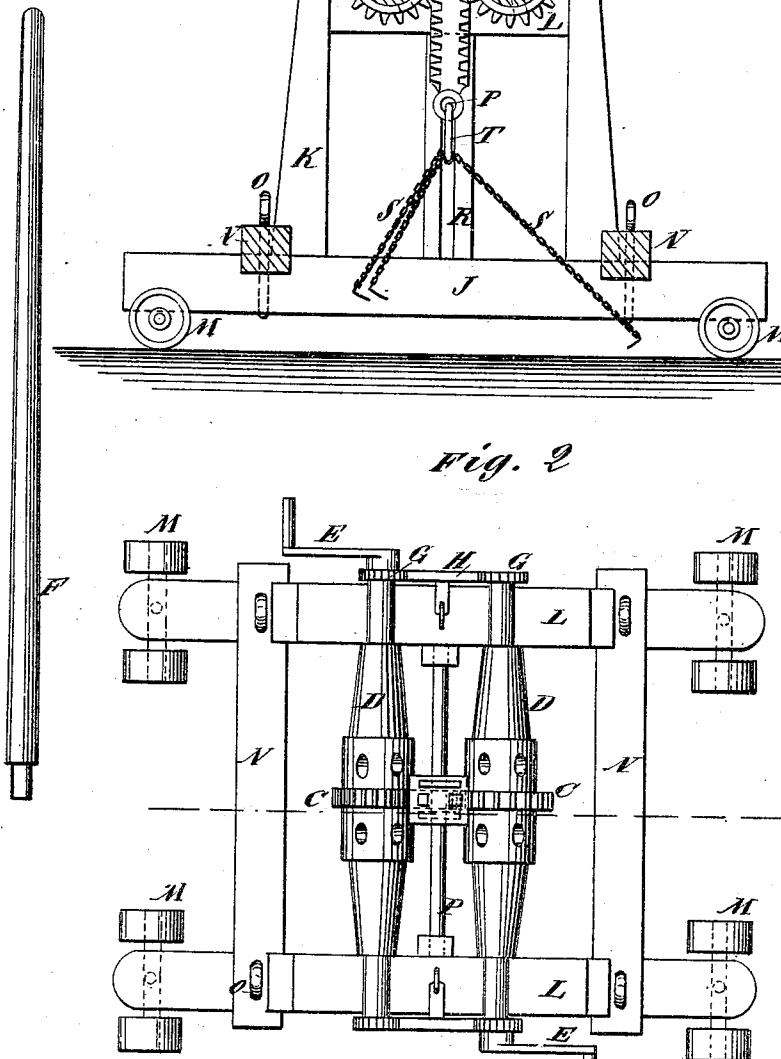


Fig. 2

WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

AUGUST FICHT, OF BELLASYLVA, PENNSYLVANIA.

IMPROVEMENT IN LIFTING-MACHINES.

Specification forming part of Letters Patent No. **178,620**, dated June 13, 1876; application filed May 16, 1876.

To all whom it may concern:

Be it known that I, AUGUST FICHT, of Bellasylda, county of Wyoming, and State of Pennsylvania, have invented a new and Improved Lifting-Machine, of which the following is a specification:

My invention consists of a lifting-bar, toothed on opposite sides, between guide-ribs, for keeping it in gear with a couple of toothed wheels on a pair of shafts mounted on the top of a frame, and having cranks or levers to work them, and they have ratchet-wheels provided with pawls to retain the weight at any height. My invention also consists of the supporting-frame for the rollers, for working the lifting-bar, contrived in two readily-detachable parts, to facilitate the application of the machine to a stump or other object to be lifted.

Figure 1 is a sectional elevation of my improved machine, taken on the line *x x*, Fig. 2. Fig. 2 is a plan view, and Fig. 3 is a detail of lever for working the machine.

A is the bar, which has cogs on opposite sides, between ribs B, along the ends of the teeth, to keep it in gear with the wheels C for working it, said wheels being on shafts D, which are turned by cranks E or levers F, and which have ratchets G and pawls H, to hold the load. The ratchets swing over on the pivots I when the lifting-bar is to be let down. The frame is composed of two parts, made of sills J, posts K, and beams L, each mounted on trucks M, and detachably connected by the cross-beams N, which are boxed to sills J and posts K, and detachably fast-

ened by pins O, so that the end parts of the frame may be separated to adjust the machine around a stump or other heavy object readily. The lower end of the lifting-bar has a guide-rod, P, going through it, and extending to the guides R, to prevent the lifting-bar from drawing sidewise by the load. The chains S are, for hitching to the load, coupled onto this rod by links T. This machine is calculated to be easy to manage, and is adapted for lifting with great power. The top of the lifting-bar is adapted for lifting under a building and the like. It will be noticed that after the weight is raised it can be moved anywhere by the machine.

I am aware of the existence of a railroad-jack having a vertically-sliding rack or lifting bar, which is operated by a vibrating rack-bar and pinion-wheels. I disclaim all broadness of invention, and confine myself to details of construction and arrangement.

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

1. The combination of the double rack-bar A, having side ribs B and guide-rod P, with the shaft D, pinions C, and slotted guides R of the frame, as and for the purpose set forth.

2. The combination of the bottom truck-frame with the detachable top frame, supporting the operating devices, as herein set forth.

AUGUST FICHT.

Witnesses:

C. W. ENGELMANN,
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