

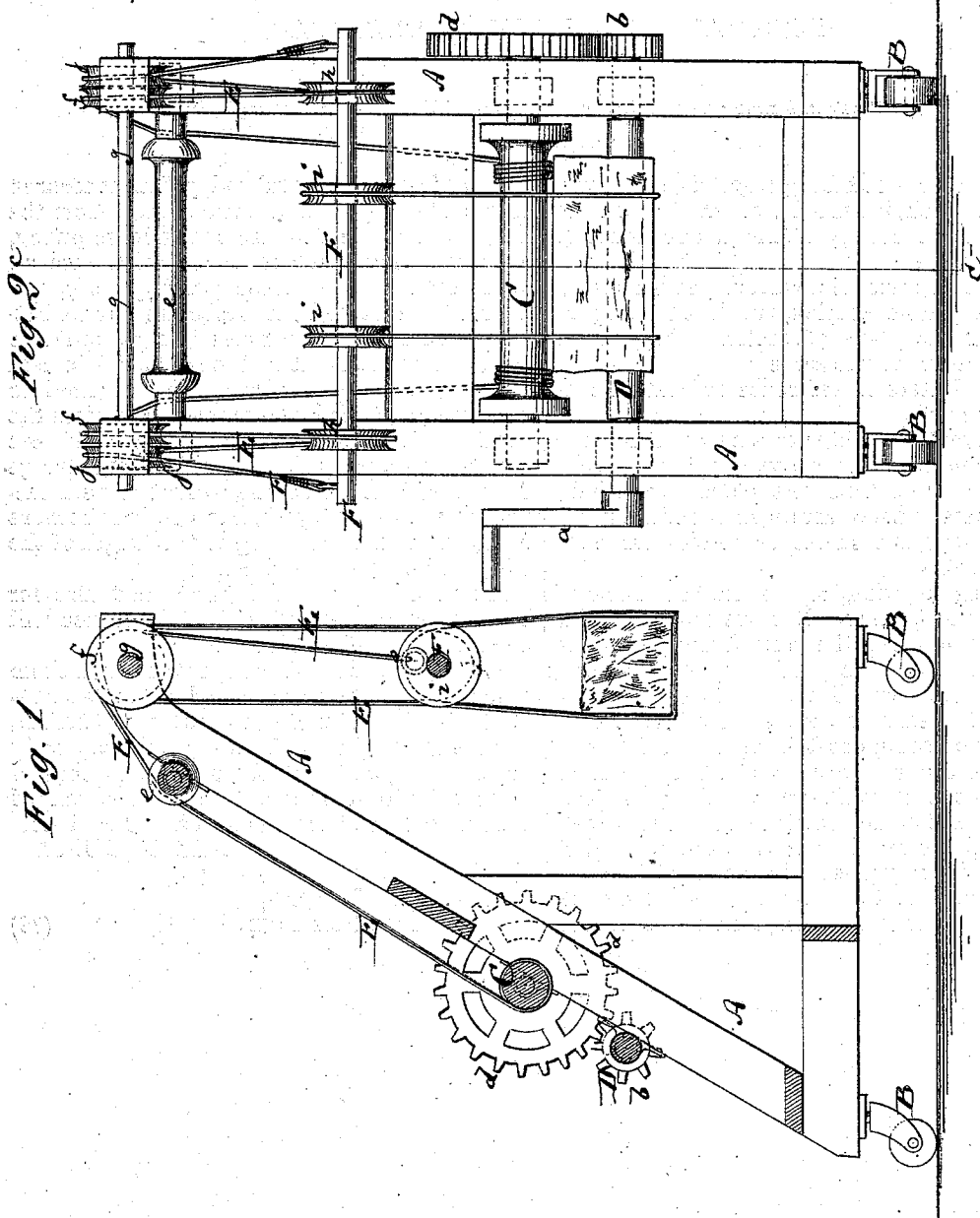
(79.)

A. M. TOMB.

Improvement in Double Derricks.

No. 122,416.

Patented Jan. 2, 1872.



Witnesses:

A. W. Amqvist
Charles McArdle

Inventor:

A. M. Tomb
PER *Wm. L. Muff*
Attorneys.

UNITED STATES PATENT OFFICE.

ASA M. TOMB, OF OWEGO, NEW YORK, ASSIGNOR TO HIMSELF AND CHARLES M. HAYWOOD, OF SAME PLACE.

IMPROVEMENT IN DOUBLE DERRICKS.

Specification forming part of Letters Patent No. 122,416, dated January 2, 1872.

Specification describing a certain Improved Double Derrick, invented by ASA M. TOMB, of Owego, in the county of Tioga and State of New York.

Figure 1 represents a vertical section of my improved double derrick, the line *c c*, Fig. 2, indicating the plane of section. Fig. 2 is a front elevation of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new machine for hoisting and lowering heavy weights and conveying the same from one place to another; and consists in a new arrangement of hoisting-ropes, pulleys, and shafts, as hereinafter more fully described.

A, in the drawing, represents the frame of my improved derrick. B B are caster-wheels, which support it on the ground and permit its convenient and speedy conveyance from one locality to another. C is a windlass, hung horizontally in bearings secured to the frame A. D is the operating shaft, hung to the frame A parallel to the windlass. *a* is a crank-handle affixed to the shaft D, and *b* a pinion on the same, the pinion meshing into a toothed wheel, *d*, which is mounted upon the windlass. E E are the elevating ropes. Each of them has one end attached to the windlass, and is thence carried over a friction-roller, *e*, and over a loose

pulley, *f*, on a horizontal rod, *g*, that is secured to the upper part of the frame A. From the pulley *f* the rope E passes over a loose pulley, *h*, on a suspended shaft, F, and thence up again over another loose pulley, *j*, on *g*, and back to the shaft F, to which its end is fastened. Thus, the two ropes being applied to the ends of the shaft F, the said shaft is held suspended. The windlass, when turned to wind up or unwind the ropes E E, causes the shaft F to be raised or lowered. Two or more loose pulleys, *i i*, on F, serve to hold the strings or chains from which the weight is held suspended. The pulleys *i i* can be brought more or less far apart according to the length of the thing to be hoisted and conveyed.

In stone-quarries and yards, and also for building and other purposes, this derrick will be of considerable value.

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

The combination of the windlass C, shaft D, and ropes E E, with the loose pulleys *f* and *j* on the rod *g*, and with the suspended shaft F having the loose pulleys *h* and *i*, all arranged substantially as herein shown and described.

ASA M. TOMB.

Witnesses:

HENRY L. BEAN,
NELLIE RAYMOND.

(79)