

(No Model.)

J. T. HAINES.  
PORTABLE ELEVATOR.

No. 387,512.

Patented Aug. 7, 1888.

Fig. 1.

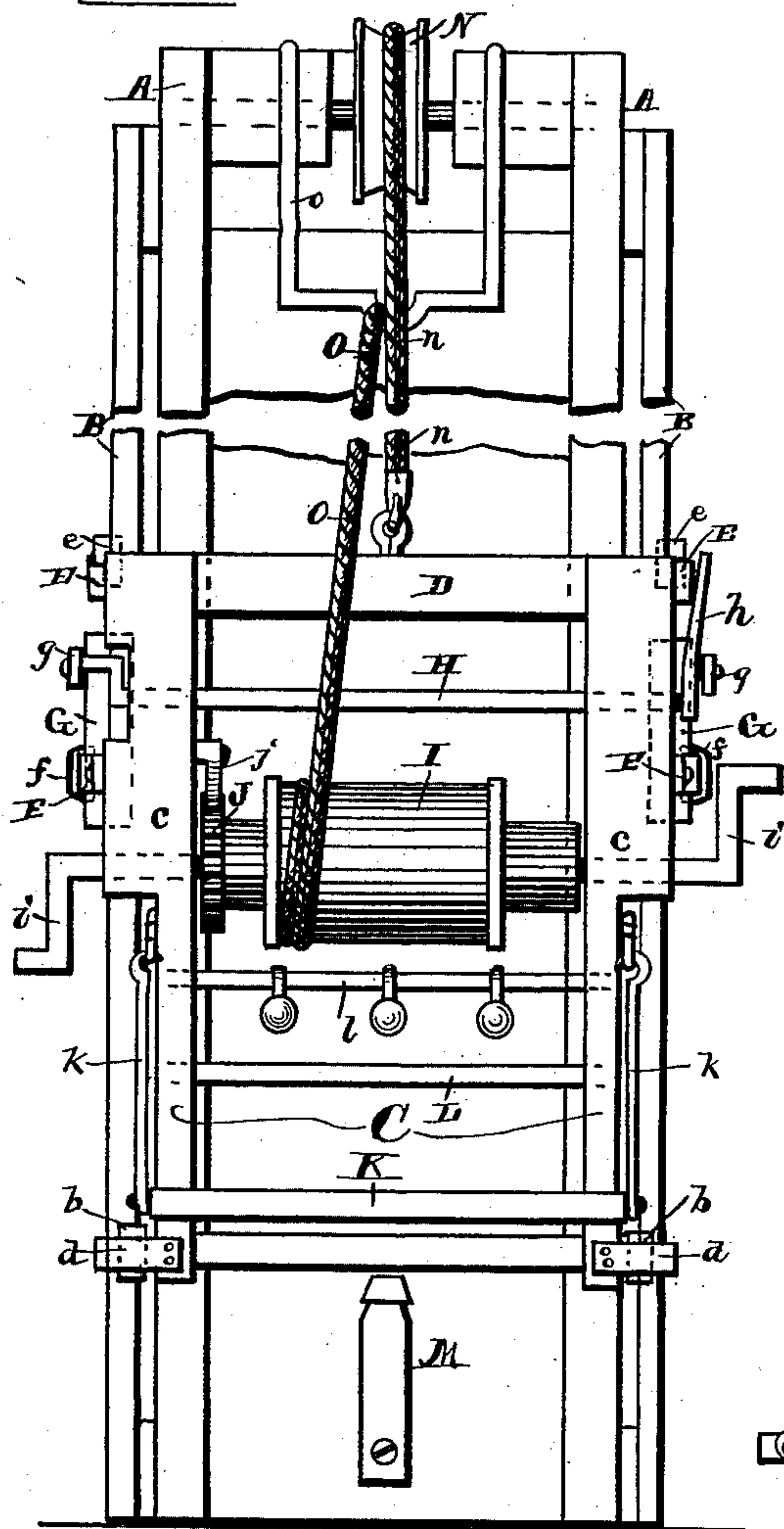
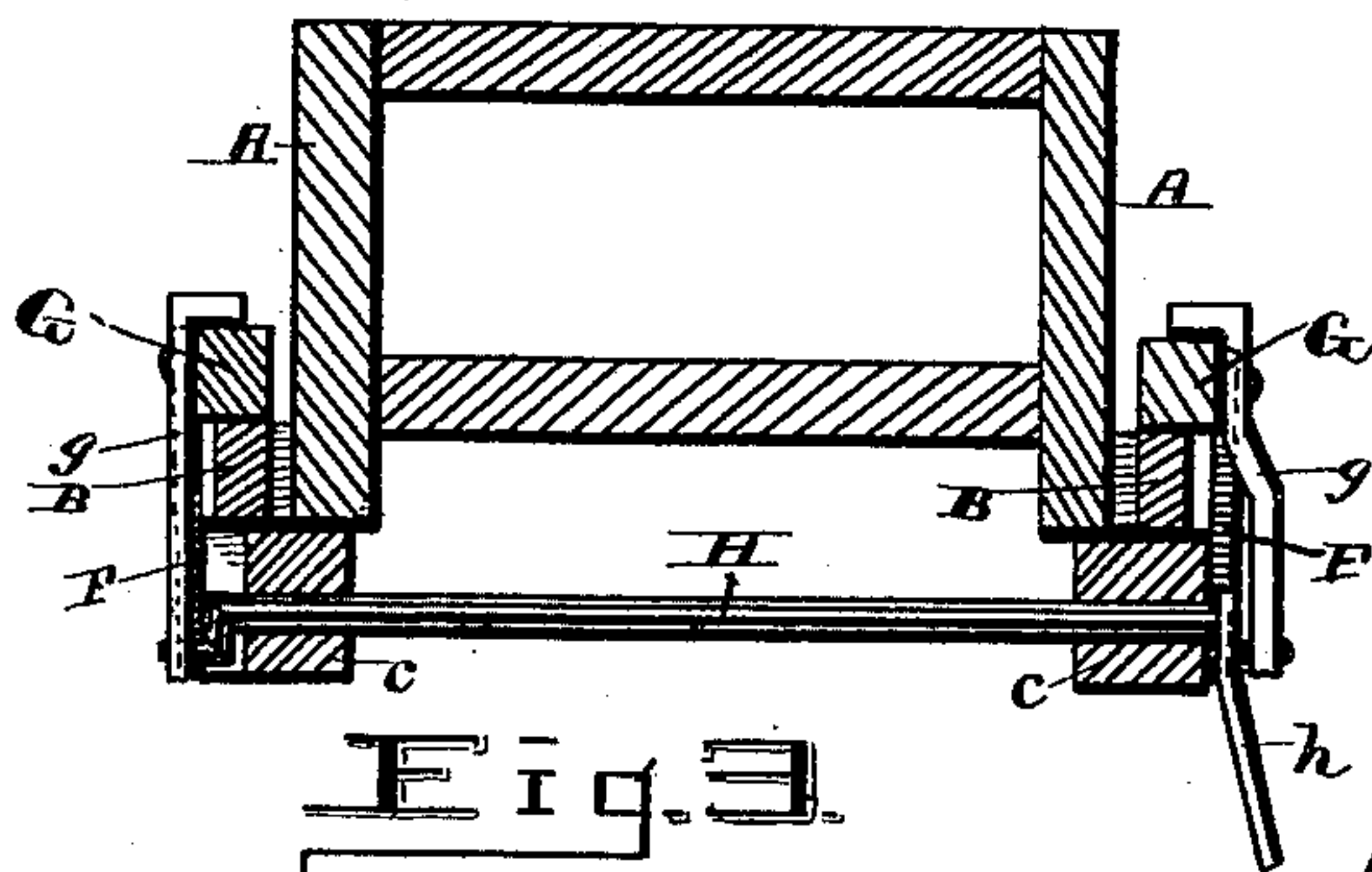
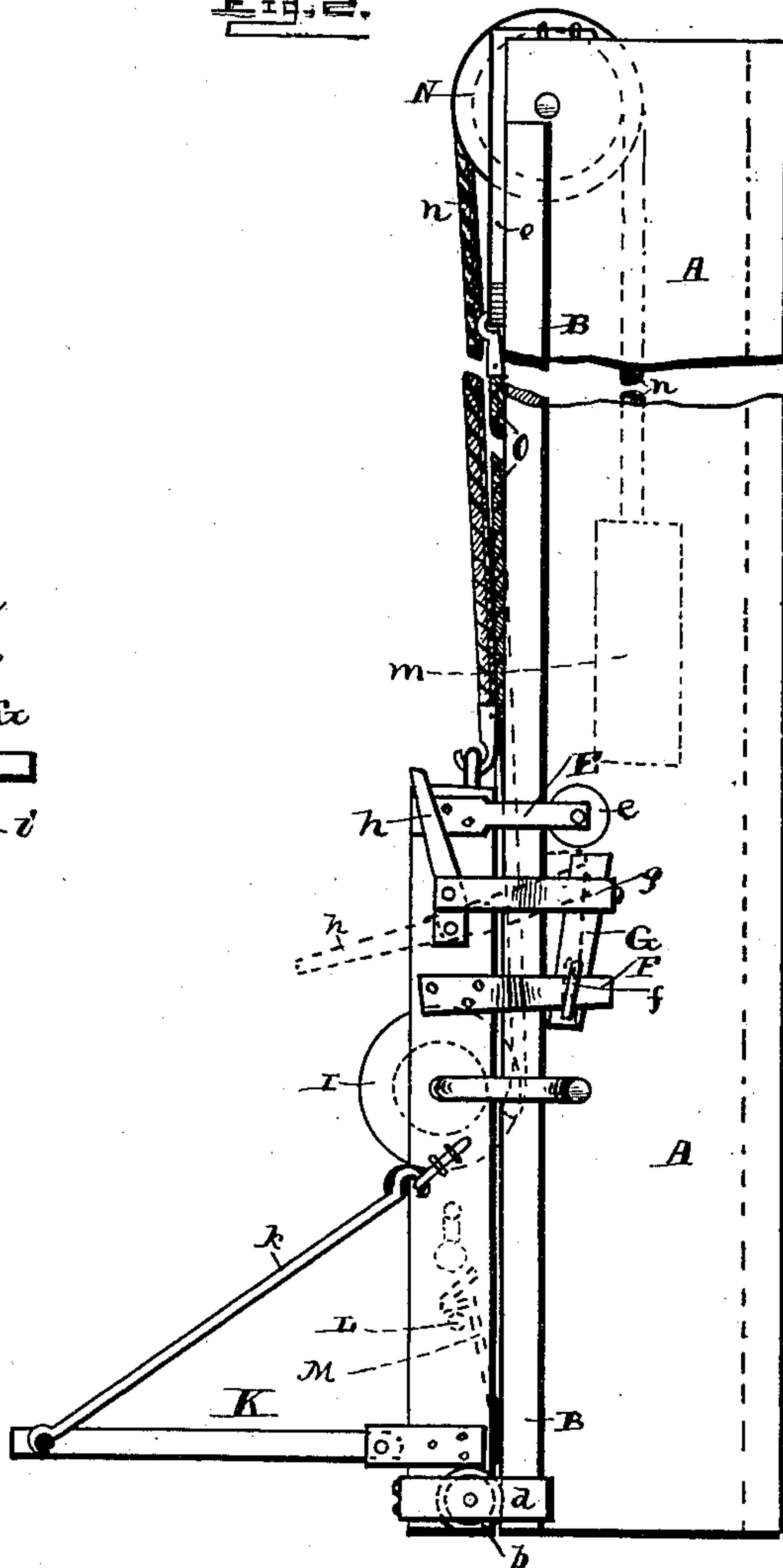


Fig. 2.



Witnesses.  
P. L. Brooks.  
A. E. Dowell.

Fig. 3.

Inventor,  
J. T. Haines.  
By his Attorney W. Alexander.



# UNITED STATES PATENT OFFICE.

JOSEPH T. HAINES, OF BALBEC, INDIANA.

## PORTABLE ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 387,512, dated August 7, 1888.

Application filed February 16, 1888. Serial No. 264,295. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH T. HAINES, of Balbec, in the county of Jay and State of Indiana, have invented certain new and useful  
5 Improvements in Portable Elevators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon,  
10 which form part of this specification, in which—

Figure 1 is a broken front view of my elevator. Fig. 2 is a side view of the same. Fig. 3 is a cross-section of the same in the line of  
15 shaft H.

This invention relates to improvements in portable or stationary elevators, and its object is to provide a simple and easily constructed and operated elevator, as will be fully  
20 understood from the following description, taken in connection with the accompanying drawings, and particularly pointed out in the appended claims.

Referring by letter to the drawings, A A designate two vertical parallel standards which are rigidly braced together, and a a are boards secured between standards A A at front and rear, forming a boxing in which plays a weight,  
25 m, hereinafter referred to.

BB designate guide-rails secured to the outer opposite edges of standards A A, which also serve as tracks for the elevator-carriage.

C designates the carriage, composed of side bars, c c, and connecting end bars, D D, rigidly united. To the lower ends of bars c c are  
35 secured the angular clips d d, which embrace and engage the inner face of rails B B, to prevent the carriage lifting or swinging off said rails, and b b designate friction-rollers mounted in the clips d d and in the side bars, c c.  
40

E E are clips or arms secured to the upper ends of side bars, c c, and carrying on their inner ends the rollers e e, which engage the inner face of rails B B and prevent the carriage disengaging therefrom.  
45

F F are straps or bars on bars c c, below arms E, upon which are loosely mounted by staples f f brake-blocks G G. One of these blocks is pivotally connected by a link, g,  
50 with the crank-arm h of a shaft, H, journaled transversely in bars c c of the carriage, and having its opposite end cranked and similarly

connected with the other brake-block, so that when arm h is properly actuated both brake-blocks will be caused to bind track-rails B B  
55 or disengage therefrom, as is evident.

I indicates a drum mounted on a shaft, i, journaled in bars c c, and having crank-handles at its ends, as shown. J designates a ratchet-wheel on this shaft or drum I, which  
60 is engaged by a dog, j, on adjoining bar c for locking the drum in any position.

K is the platform of the carriage, which is hinged upon side bars, c c, at its inner corners by proper straps, and k k are brace-support-  
65 ing rods pivoted at one end to bars c c, and loosely engaged with the outer corners of platform K, so that they can be disengaged therefrom and the platform folded against the framework of the carriage.  
70

L l represent transverse rods secured between bars c c, the former at bottom and in position to engage with a catch, M, when the carriage is lowered, and keep the carriage  
75 down until the catch is disengaged. Upon rod l may be hung removable weights for balancing the carriage.

N is a grooved pulley mounted on a shaft fixed at the upper end of standards A A, and over this pulley passes a rope, n, one end of  
80 which is secured to the upper cross-bar of the carriage, and the other end is attached to a weight, m, which weight is sufficiently heavy to balance the carriage, or somewhat overbalance it, so that it can be run up and down on  
85 its track without much effort of the operator. The weights on rod l may be employed to counterbalance the weight m.

O is a rope secured at one end to a stirrup, o, hung between the upper ends of standards  
90 A, below the pulley N, and the other end of rope O is attached to drum I, so that by rotating said drum the rope is wound and the elevator-carriage raised. The elevator-carriage can be stopped and held at any point of its  
95 movement by means of the brake mechanism described, or by the use of the ratchet and dog on the drum-shaft.

It will be observed that the entire device can be constructed and transported from place  
100 to place, rendering it especially useful as a builder's portable elevator, or it can be built permanently in any position desired. In use the operator stands upon the platform and by



rotating drum I winds rope O and causes the elevator-carriage to ascend. When the elevator is to be portable, the standards A and track-rails B may be constructed in interlocking sections, so that they can be readily taken apart for transportation.

Having described my invention, what I claim is—

1. The elevator comprising the vertical guide-rails, the carriage C, mounted on said rails and having a hinged platform, K, supporting-rods therefor, the rope, drum, and equipoising-weight on rope *n*, and pulley N, and the brake mechanism engaging the guide-rails and adapted to stop and hold the carriage, all constructed and arranged substantially in the manner and for the purpose described.

2. The combination of the guide-rails and the elevator-carriage with the cranked rod H, the arm *h*, the movable brake-blocks G G, and

the links *g g*, respectively, connecting said blocks with arm *h* and the cranked end of shaft H, all constructed and arranged substantially as and for the purpose described. 25

3. The herein-described elevator, comprising the guidetrack-rails, the carriage provided with friction-rollers, and clips mounted on said guides, the drum I, its cranked shaft, rope O, and the brake-blocks G G, cranked shaft H, arm *h*, and links *g g*, connecting blocks G respectively with the cranked end of shaft H and arm *h*, all constructed and arranged substantially in the manner and for the purpose described. 30 35

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSEPH T. HAINES.

Witnesses:

LINDLEY N. BLACKLEDGE,  
GEO. E. GRAVES.