

Elevator

N^o 70,387.

Patented Nov 5, 1867.

Fig. 2.

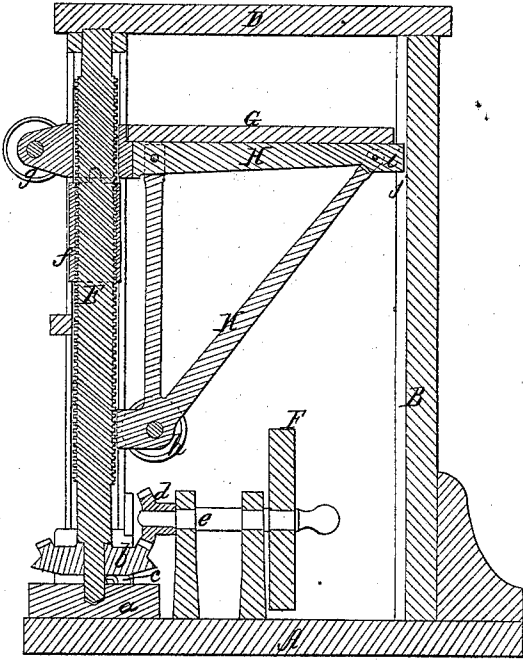


Fig. 1.

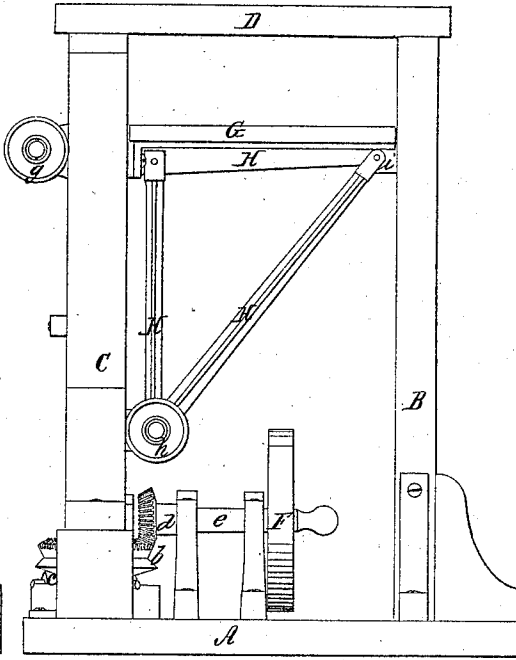
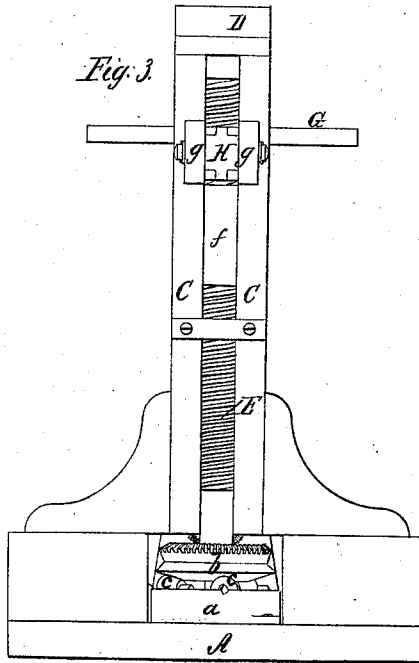


Fig. 3.



Witnesses;

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EDWARD H. ASHCROFT, OF LYNN, MASSACHUSETTS.

Letters Patent No. 70,387, dated November 5, 1867.

IMPROVEMENT IN ELEVATORS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, EDWARD H. ASHCROFT, of the city of Lynn, county of Essex, in the State of Massachusetts, have invented a new and improved "Elevator;" and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which like parts are indicated by like letters in the several figures.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation. In the drawings—

Figure 1 shows an elevation of my machine.

Figure 2, a central vertical section through the same; and

Figure 3, an end view.

A represents the foundation or bottom of the frame, to which are secured uprights B and C, suitably braced at their lower ends. D is a cross-piece, connecting the uprights at their top, making altogether a strong, stable framework. The upright C is composed of two pieces, between which works a screw, E, the lower end of which rests in a metal bed-plate, *a*. Above this, and on the screw, is a bevel gear-wheel, *b*, and between this wheel and the bed-plate are balls or friction-rollers, *c*. The bevel-wheel *b* is secured to screw E, and it gears into another one, *d*, on a shaft, *e*, to which motion may be given through a pulley, F, or in any other obvious mechanical way. G is a platform which rests upon a sleeve or female screw upon the screw E. The platform proper is supported by a metallic braced frame, H. This at the top encircles the screw E, and at its extreme outer end carries two friction-rollers, *g g*, which bear upon the frame-pieces *c c*. The horizontal arm of H rests upon the nut *f*, at the top of the latter. The other end of H, that is, at *i*, works in a guide-slot, *j*, in upright B. At the lower end of H, where the diagonal arm meets the vertical one, I also have two friction-pulleys, *h h*, bearing on the inside of frame-pieces C C, the same as do *g g* on the outside. It is obvious what useful purposes these sets of friction-rollers serve. The top of the screw has a proper and secure guide at the top of the frame.

The operation is as follows: Motion being communicated to pulley F by another friction-pulley, or in any other way, the shaft *e* is revolved, and with it the bevel-wheels *d* and *b*, and with the latter the screw E revolves, and, according to the direction in which it revolves, the sleeve or nut *f* runs up or down, carrying with it the platform G. The nut *f* may be dispensed with by making a screw in the outer end of H, where it encircles the screw E. I prefer, however, the nut. It may also be attached to H.

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

The combination of the frame H, with its friction-rollers *h* and *g*, and the screw E, constructed and operating in the manner substantially as shown and described, and for the purpose set forth.

E. H. ASHCROFT.

Witnesses:

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