

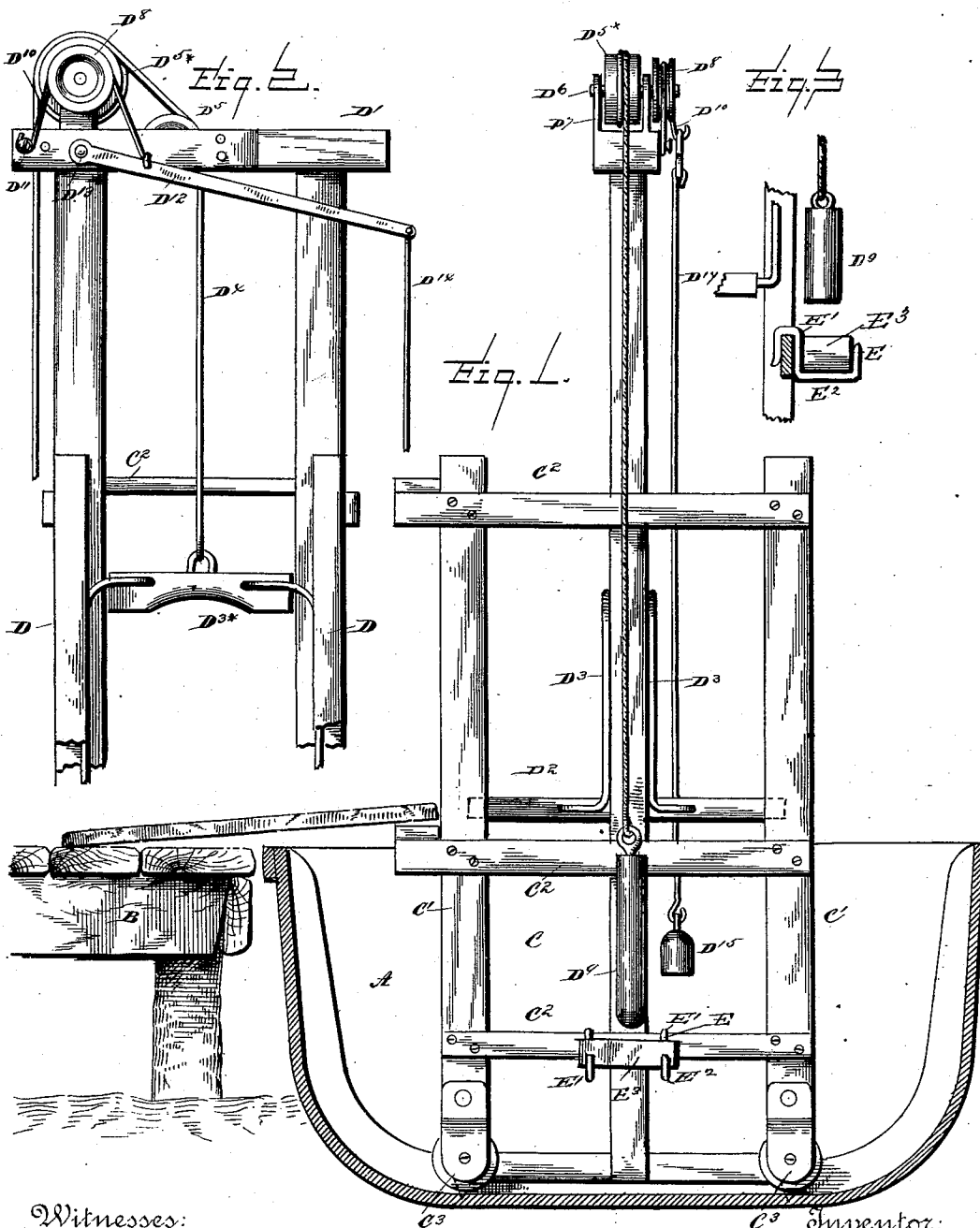
(No Model.)

A. C. NEWTON.

ELEVATOR.

No. 367,226.

Patented July 26, 1887.



Witnesses:

S. C. Hills,
W. S. Duwall

Inventor:

Andrew C. Newton

By

E. R. Stocking
Attorney.

UNITED STATES PATENT OFFICE.

ANDREW C. NEWTON, OF CRESCENT, NEW YORK.

ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 367,226, dated July 26, 1887.

Application filed April 13, 1887. Serial No. 234,683. (No model.)

To all whom it may concern:

Be it known that I, ANDREW C. NEWTON, a citizen of the United States, residing at Crescent, in the county of Saratoga and State of New York, have invented certain new and useful Improvements in Elevators, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to elevators, and is designed to lower cargoes from one point to another.

The main object of the invention is to provide an elevator for lowering brick from kilns, wharves, &c., to the ground or into the holds of vessels automatically, thus facilitating the work and reducing the number of men required to perform the same.

Other objects and advantages of the invention will hereinafter appear, and be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of an elevator constructed in accordance with my invention, the same being in position in a boat and adapted to receive its cargo from a wharf. Fig. 2 is a front elevation of the upper portion of the elevator, showing the means employed for governing the same; and Fig. 3 is a detail in section, herein-after described.

Similar letters of reference indicate like parts in all the figures of the drawings.

As the invention is designed particularly for use in lowering brick from kilns, &c., (though it may be put to other uses,) I will proceed to describe it in connection with and as adapted for this purpose.

It is well known that in removing brick from kilns men in gangs are stationed at different points—aloft, below, and midway therein—and the brick tossed from one to the other, thus passing along the line. Gangs are also employed in removing the brick after being deposited on the ground.

Referring more particularly to Fig. 1, A represents a boat in which the brick are to be lowered, and B a wharf, the two being connected and made accessible by an ordinary gang-plank.

C represents the frame-work of the elevator, and it comprises uprights C', connected by suitable tie-bars, C², forming a rectangular

frame, the lower ends of said uprights being provided with suitable casters, C³, whereby the frame may be transported to convenient points. Midway the posts C', oppositely arranged and forming guides, are the elevator-beams D, which are of suitable height and connected at their top by means of a connecting-beam, D'. (See Fig. 2.)

Interposed between the guiding-beams D is the elevator car or platform D², which is provided with oppositely-arranged guiding-arms D³ at each side, which are adapted to embrace the guiding-beams D. At the upper ends of the arms B² is secured a yoke, D^{3x}, by which the elevator-car is suspended, it (said yoke) being connected to a cable or rope, D⁴, passing over and around pulleys D⁵ D^{3x}, the latter rigidly mounted on a shaft, D⁶, having bearings in lugs D⁷, and having at its outer end brake-wheel D⁸. At the opposite end of the cable or rope D⁴ is secured a counterbalance or weight, D⁹, which is sufficient to more than counterbalance the weight of the elevator. A brake strap or clutch, D¹⁰, connected to the beam D', as at D¹¹, passes over the brake-wheel D⁸, and is connected to a lever, D¹², pivoted, as at D¹³, to the beam D', and having a brake-cord, D¹⁴, extending down to within a short distance of the base of the elevator, and provided with a weight, D¹⁵, said weight being sufficient to draw upon the lever D¹² and strap D¹⁰, to prevent the brake-wheel from revolving, and it, being rigid with the shaft D⁶, prevents the rotation and consequent movement of the elevator-car. In this manner the elevator car or platform is maintained at any desired point, and it may be stopped at any desired point by simply allowing the weight to hang and exert its influence upon the brake-wheel.

The operation of lowering brick by my invention is as follows: A wheelbarrow containing a certain number of brick is placed upon the platform, and the man stationed at the bottom of the elevator raises or prevents the weight D¹⁵ from drawing upon the lever. The weight of the brick and car being sufficient to overcome the weight D⁹, the car will be lowered, subject, however, to government by means of the brake, inasmuch as, if the weight is at any time allowed to exert its influence

upon the brake-lever, the car is brought to a standstill. When the car arrives at its destination, the load of brick is removed and an empty wheelbarrow takes its place, the brake-
 5 man raises the rod D^{12} , thus releasing the brake, and the weight D^9 lowers, raising the elevator-car, when the empty wheelbarrow is replaced by a loaded one and the operation repeated. In this way it will be seen that a
 10 small number of men at the top of the kiln and a like number at the bottom or base of the elevator and a man at the brake are sufficient to do the work which required several gangs.

In some instances—as when loading a car or
 15 boat or when the pile of brick becomes too high to be reached conveniently from the ground—it is found necessary to provide a platform or stop. For this purpose I provide brackets E , formed with clamping-arms, E'
 20 adapted to clamp the tie-bars, and supporting-arms E^2 , adapted to receive a platform or stop, E^3 , against which the weight D^9 is adapted to come, whereby the elevator-carriage is held
 25 allowed to fall to its lowest position.

Having described my invention and its operation, what I claim is—

1. In combination with the frame C , having the tie-bars C^2 , the brackets E , comprising the hook ends E' , the supporting ends E^2 , and the
 30 stop E^3 , substantially as specified.

2. The beam D' , having the pulley D^5 , bearings D^7 , shaft D^8 , mounted therein, the pulley D^{10} , and brake-pulley D^8 , mounted on said shaft, in combination with the frame C , guides
 35 D , rope D^4 , and car D^2 , the weights D^9 D^{16} , lever D^{12} , and band D^{10} , substantially as specified.

3. The combination, with the guides D , beams D' , tie-bars C^2 , and uprights C' , of the elevator-car D^2 , rope D^4 , weight D^9 , stop E^3 ,
 40 and its support, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW C. NEWTON.

Witnesses:

HENRY L. HAIGHT,
 E. L. HAIGHT.