

C. B. WHEELLOCK.

ELEVATOR.

No. 174,452.

Patented March 7, 1876.

Fig. 1.

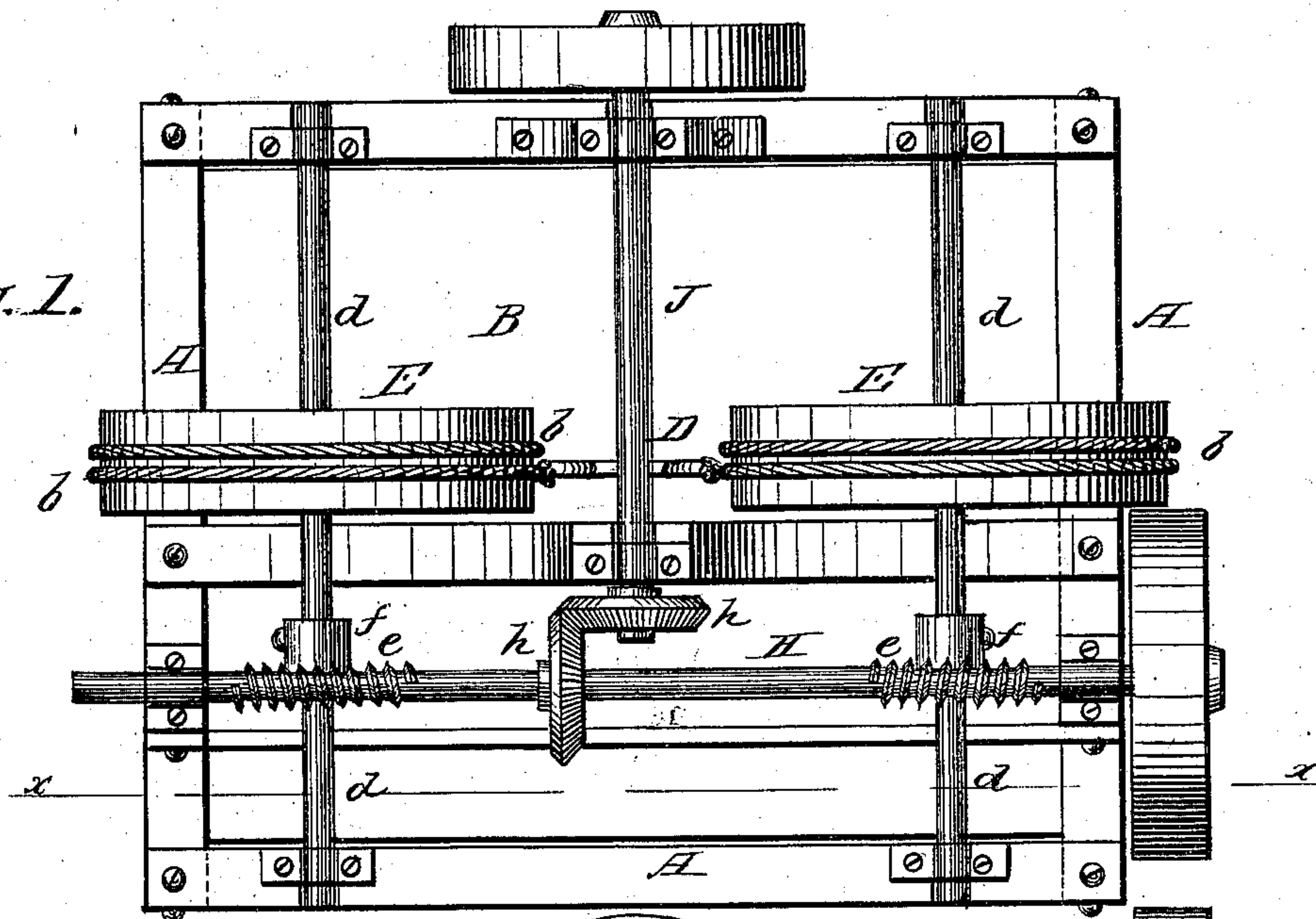
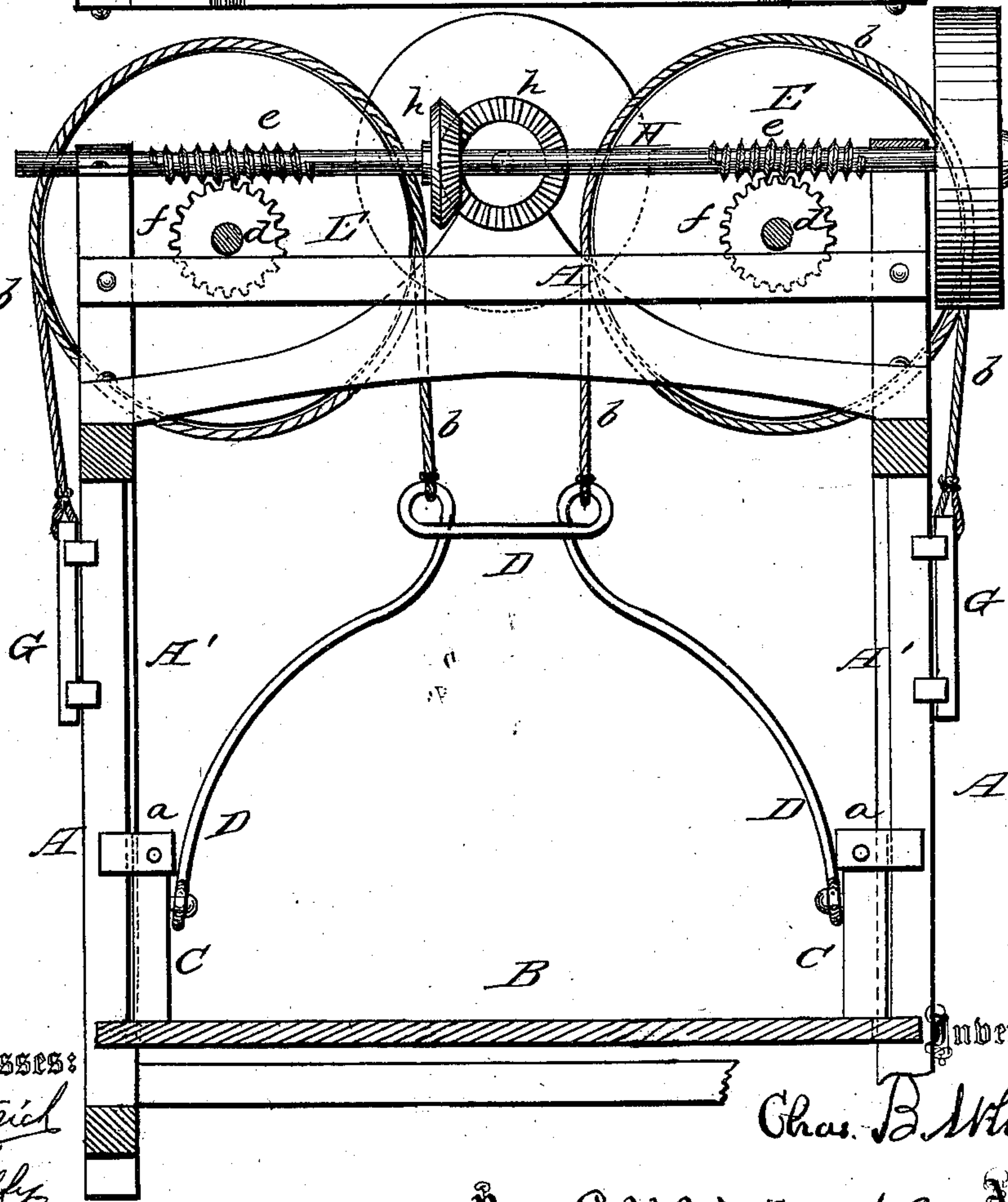


Fig. 2.



Witnesses:
F. B. Dietrich
J. H. Saffy

Inventor:
Chas. B. Wheellock
Per: C. H. Watson & Co. Attorneys.

UNITED STATES PATENT OFFICE

CHARLES B. WHEELOCK, OF NASHVILLE, TENNESSEE.

IMPROVEMENT IN ELEVATORS.

Specification forming part of Letters Patent No. **174,452**, dated March 7, 1876; application filed February 16, 1876.

To all whom it may concern:

Be it known that I, CHARLES B. WHEELOCK, of Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Elevators; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of an elevator operated by worm-gear, as will be hereinafter more fully set forth.

In the annexed drawings, Figure 1 is a plan view, and Fig. 2 is a vertical section, taken on line *t t* of Fig. 1.

A represents a suitable frame-work, in which the platform or car B of the elevator moves up and down. The car or platform B has, on two opposite sides, short upright posts or standards C C, with side flanges *a a*, which form guides on the uprights A' A' of the frame. To the side posts C C is attached a bail, D, to which are secured two ropes, *b b*, said ropes passing upward and around drums E E, secured upon two parallel shafts, *d d*, having their bearings at the top of the elevator. Weights G G are attached to the other ends of the ropes *b b*. On each shaft *d* is secured a worm-wheel, *f*, and the two wheels *f f* gear with two worms, *e e*, upon a main driving-shaft, H, running at right angles with the shafts *d d*. The elevator-platform is raised and lowered by the worm-gearing turning the drums E. The advantages of the worm are, that it is a compact application of power, and practically dispenses with the use of a brake, because the platform will sustain a considerable load before it would reverse the worm.

Two ropes, drums, and sets of worms, as shown, may be used; or, if desired, only one

rope, drum, and worm. When two ropes, with space between them, are used, as shown in the drawing, safety is secured, because, if one rope breaks, the platform will tilt and so pinch between the uprights that its fall is prevented.

In some instances the drums can be used as windlasses by attaching the ropes to them, and thus dispensing with the use of the weights.

The power may be applied to either end of the shaft H, and by the addition of another driving-shaft, J, the power may be applied from either of the other two sides. In the drawing I have shown this shaft J running at right angles with the shaft H, and connected thereto by bevel-gears *h h*. It may, however, run across the shaft H, and be connected thereto by worm-gear, if desired. The shaft J need not necessarily be in a horizontal position, but may be arranged at any angle desired, hence allowing of the power being applied from any point.

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

1. The frame A, platform B, and standards C with flanges *a*, in combination with ropes *b b*, drums E E, parallel shafts *d d*, wheels *f f*, worms *e e*, and the weights G, constructed and arranged substantially as and for the purpose set forth.

2. The shafts J and H, having beveled gears *h h*, and the shaft H having worms *e e*, in combination with parallel shafts *d*, with wheels *f*, and the drums, ropes, and platform of an elevator, substantially as and for the purpose specified.

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

CHARLES B. WHEELOCK.

Witnesses:

A. L. BRICKNELL,
DAVID C. LOVE.