

(No Model.)

D. D. WALTON.
OPERATING MECHANISM FOR ELEVATORS.

No. 536,362.

Patented Mar. 26, 1895.

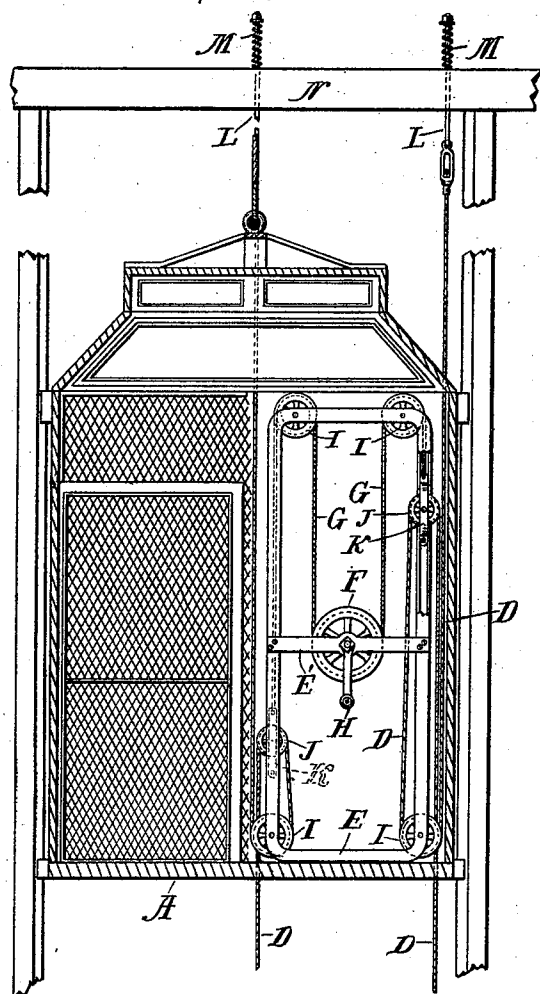


Fig. 1.

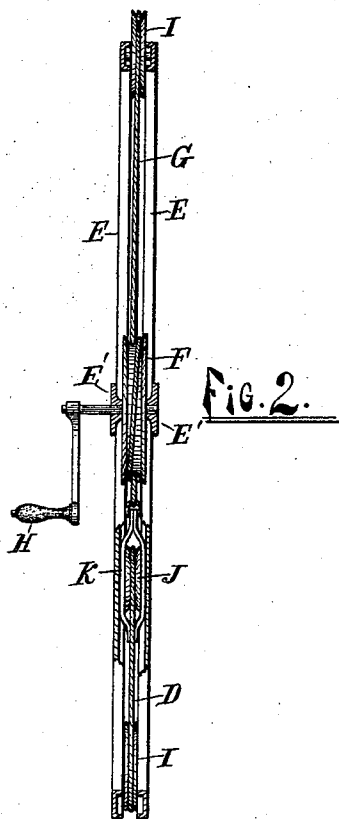


Fig. 2.

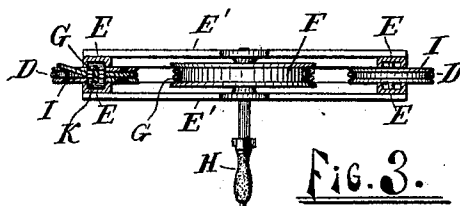
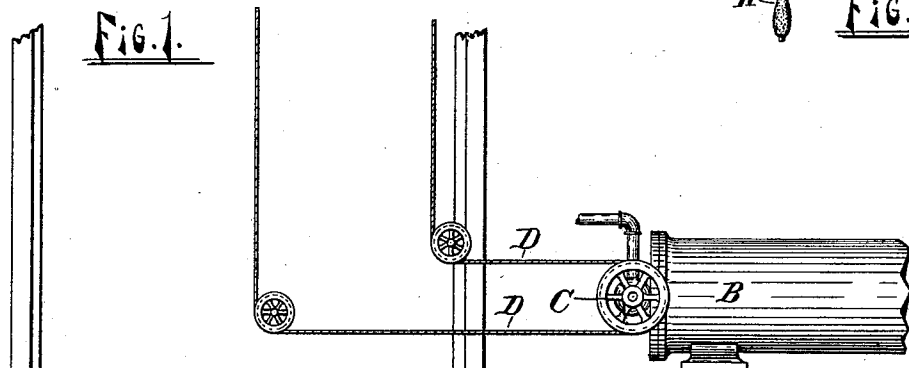


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

DAYTON D. WALTON, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR OF ONE-HALF TO JOHN B. HALL, OF SAME PLACE.

OPERATING MECHANISM FOR ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 536,362, dated March 26, 1895.

Application filed December 10, 1894. Serial No. 531,319. (No model.)

To all whom it may concern.

Be it known that I, DAYTON D. WALTON, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Operating Mechanism for Elevators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in operating mechanisms for elevators, and its object is to provide the same with certain new and useful features hereinafter more fully described and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a device embodying my invention, with parts broken away to show the construction; Fig. 2, an enlarged detail of the mechanism attached to the cage shown in central vertical section; and Fig. 3, a plan view of the same with the upper part removed.

Like letters refer to like parts in all the figures.

A represents the cage of the elevator; B, any convenient hoisting device for the same, having reversing gear C operated by a cable D having two opposite by moving parts. Both parts of said cable extend upward throughout the elevator shaft to the top thereof, and at their respective ends are secured to vertically movable take-up rods L, L, provided with springs M, M, to maintain constant tension on all the parts of the cable.

E is a substantially rectangular frame attached to the cage and composed of two channel iron frames of equal size and form, having their channeled sides opposite and a short distance from each other. Between the frames and near each corner thereof, are journaled pulleys I, and between the vertical sides of said frames are slides engaging the channels in said frames and vertically movable therein. In these slides are journaled the

movable pulleys J. A cable is attached to the slides K and extends upward over the upper pulleys I and thence downward to and around a drum F journaled between the cross bars E', and provided with a crank H. The respective parts of the cable D extend upward over the respective pulleys J and thence downward under the lower pulleys I and thence upward to the top of the shaft as described, thus forming a loop in each part internally engaged by the said pulleys at each side of the frame. By turning the drum F the slides K are caused to move oppositely thus increasing the loop in one of the parts of the cable D and correspondingly decreasing the loop in the other part of the same. This rotates the valve C or other means for controlling the hoisting mechanism.

As the elevator cage rises and falls, in the shaft, both parts of the cable D run freely around the lower pulleys J, I.

I do not limit myself to any particular hoisting apparatus or elevator. Any device adapted to be controlled by oppositely moving cables, will serve the purpose.

What I claim is—

1. In an operating mechanism for elevators, in combination with relatively fixed and movable pulleys engaging the valve operating cable, slides in which said movable pulleys are journaled and frames having opposing channels engaging and guiding said slides, substantially as described.

2. In an operating mechanism for elevators, two opposing channel-iron frames of substantially equal dimensions, slides moving in the channels of said frames, means for oppositely moving said slides, movable pulleys journaled in said slides and fixed pulleys journaled in said frames, and cables secured at their upper ends to take up springs and at their lower ends to the operating mechanism of the hoist, and each of said cables having a loop engaging one fixed and one movable pulley, substantially as described.

3. In an operating mechanism for elevators, in combination with the cable for controlling

the hoisting mechanism, two opposing channeled frames having transverse bars, four pulleys journaled between said frames near the respective angles thereof a drum journaled between said bars, slides moving in the
5 channels of said frames, pulleys journaled in said slides, and a cable attached to and connecting said slides and passing over the up-

per fixed pulleys, and engaging said drum, substantially as described. 10

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

DAYTON D. WALTON.

Witnesses:

LUTHER V. MOULTON,
LEWIS E. FLANDERS.