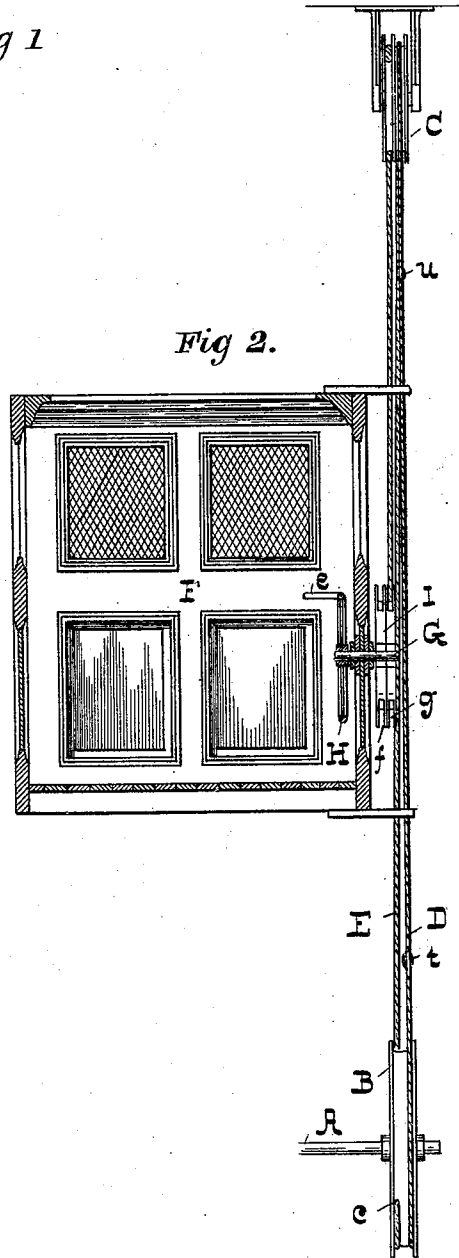
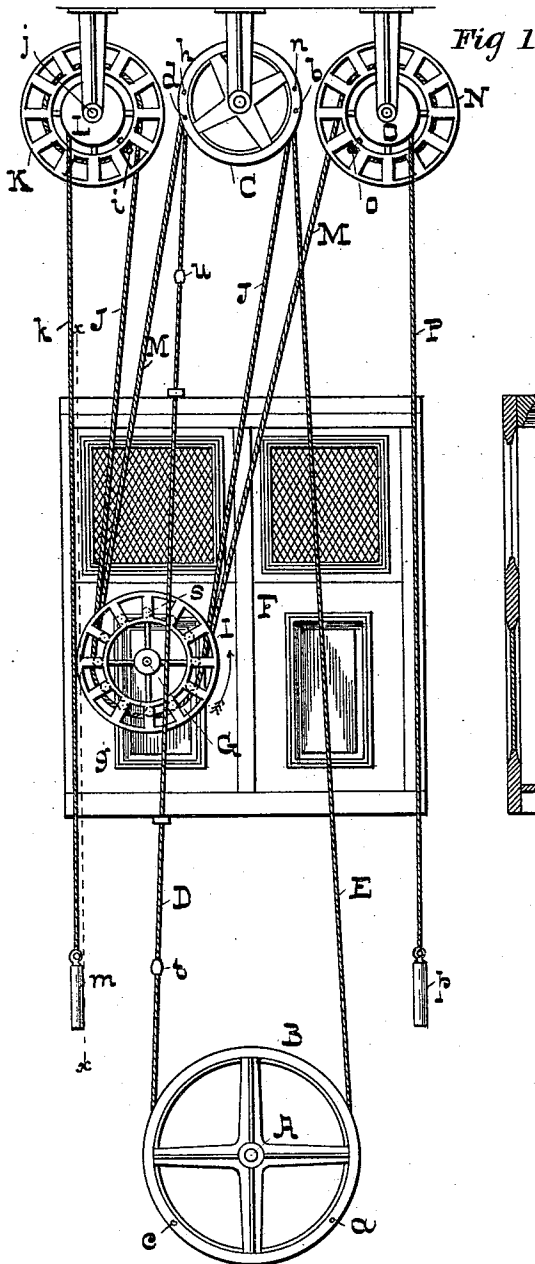


(No Model.)

J. REILLY.
CONTROLLER FOR ELEVATORS.

No. 483,943.

Patented Oct. 4, 1892.



- WITNESSES -

Dan'l Fisher
A. Andrews,

- INVENTOR -

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UNITED STATES PATENT OFFICE.

JOHN REILLY, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO
THOMAS A. SYMINGTON, OF SAME PLACE.

CONTROLLER FOR ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 483,943, dated October 4, 1892.

Application filed April 9, 1892. Serial No. 428,450. (No model.)

To all whom it may concern:

Be it known that I, JOHN REILLY, of Baltimore, Maryland, have invented certain improvements in Controllers for Elevators, of which the following is a specification.

This invention relates to improved means for operating a shaft which in turn moves a cock or valve controlling the movement of water to and from the cylinder of a hydraulic elevator or the starting mechanism of an elevator operated by any other means, as will hereinafter fully appear.

In the description of the invention which follows reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is an exterior front elevation of an elevator-cab, together with the cords, whereby the shaft before alluded to is operated from the cab, and the necessary pulleys and connections. Fig. 2 is a vertical section of Fig. 1, taken on the dotted line *x x*.

Referring to the drawings, A is a shaft which moves the water-controlling cock (not shown) or any other starting mechanism of an elevator.

B is a sheave fastened to the shaft A. The movement of this sheave in the starting and stopping of the elevator is an oscillating one, and when the starting mechanism consists of a water-valve the oscillating motion of the sheave B is very slight, probably not more than forty-five degrees.

C is a sheave secured to some upper portion of the building.

D is a cord connected to the sheave B at *a* and leading therefrom over the sheave C, to which it is fastened at *b*. E is a similar cord leading in a reversed direction from the sheave B, to which it is secured at *c*, to over the sheave C, where it is fastened at *d*. It will be seen that any movement given to the sheave C is communicated to the sheave B and operates the starting and stopping mechanism of the elevator, whatever that mechanism may be.

F is the elevator-cab pendent from a rope (not shown) in the usual manner.

G is a shaft extending through the wall of the cab F, having at its inner end a hand-wheel H with a crank-handle *e*. To the outer

end of the shaft G is a sheave I, arranged in two sections *f* and *g*, as shown in Fig. 2.

J is a cord attached to the sheave C at *h*, which passes around the said sheave down to under the section *f* of the sheave I and upward to over the sheave K, to which it is fastened at *i*. On the shaft *j* of the sheave K or formed as a part of the sheave K is a smaller sheave L, to which a cord *k* is attached. The free end of this cord has a weight *m* of sufficient gravity to take up all slack in the cord J and wind it on the sheave K. Another cord M, fastened to the sheave C at *n* and rove partially around the said sheave in a direction the opposite to that taken by the cord J, leads down under the section *g* of the sheave I and passes upward to a sheave N, to which it is secured at *o*. This sheave N has a smaller one O, from which a cord P, having a weight *p*, depends. It will be seen that the sheaves K and L and the ones N and O have practically the same office.

The operation of the elevator is as follows: Supposing the cab to be in the position shown and it is desired to elevate it, the hand-wheel H is turned so as to move the shaft A in the proper direction. As the cab ascends, the cords J and M, which would become slack if not taken up, are wound on the sheaves K and N through the influence of the cords *k* and P and their weights *m* and *p*. If instead of being elevated the cab is lowered, the cords J and M are unwound from their sheaves K and N; but the said cords are kept tight by the weights *m* and *p* and the cords *k* and P. To reduce friction as the cords J and M pass around the sheave I, the said sheave is provided with the antifriction-rollers *s*. This arrangement of friction-rollers prevents the sheave I and the hand-wheel H from having a movement as the cab is raised and lowered. Balls *t* and *u* on the cord D serve to automatically stop the cab as it approaches its highest and lowest positions.

I claim as my invention—

In a controller for an elevator, the combination of the starting-shaft A, having a sheave B thereon, the overhead sheave C, cords D and E, which are secured to and lead from opposite sides of the sheave B to and over the sheave C, to which they are fastened, the

shaft G in the cab F, having a sheave I exterior of the wall thereof, the cords J and M, leading from opposite sides of the sheaves C, to which they are attached, downward and
5 around the sheave I in opposite directions, then upward and over sheaves K and N, respectively, to which they are tied, sheaves L and O, which have motion in common with

the ones K and N, and the weighted cords $\frac{1}{2}$ and P, attached to the said sheaves L and O, 10 substantially as and for the purpose specified.

JOHN REILLY.

Witnesses:

WM. T. HOWARD,
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