

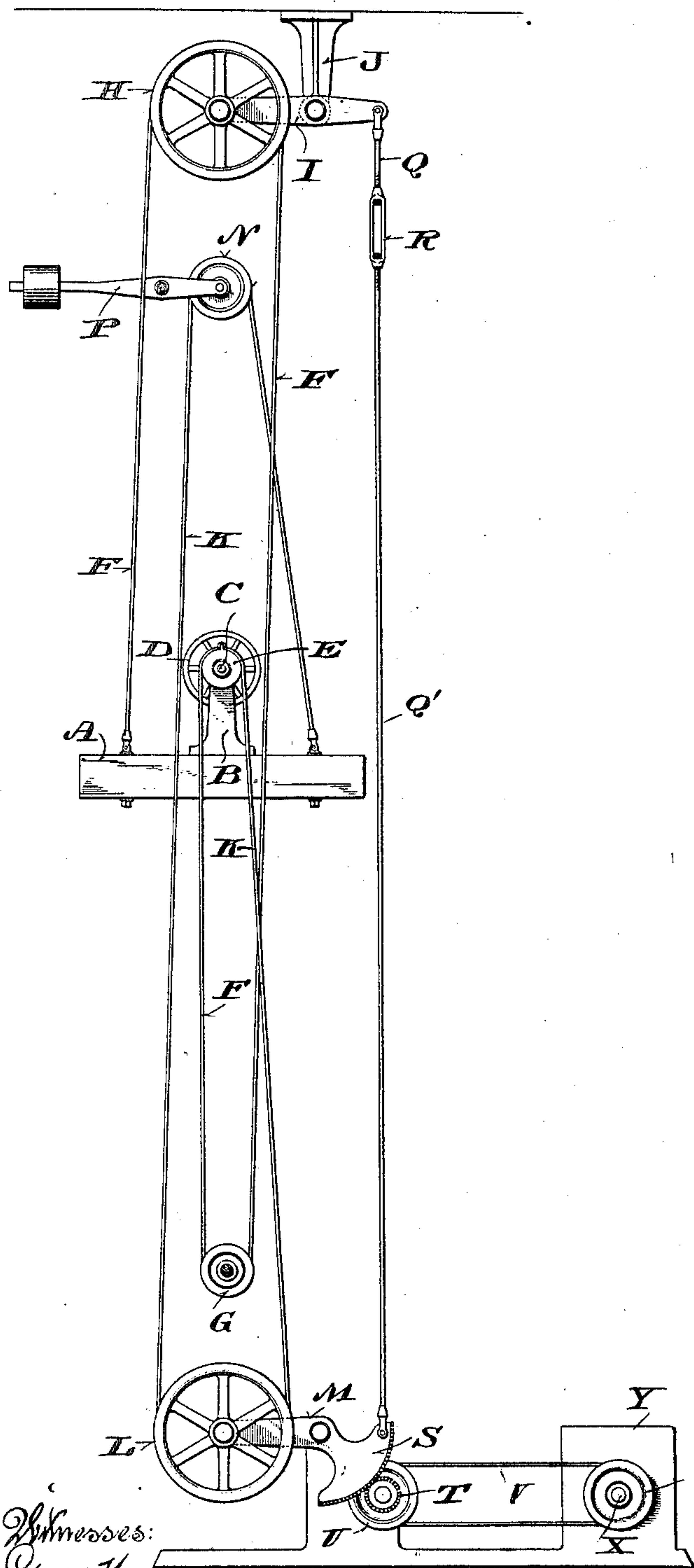
No. 675,002.

Patented May 28, 1901.

J. DILLON.
ELEVATOR CONTROLLER.

(Application filed Dec. 13, 1900.)

(No Model.)



Witnesses:
C. W. Young.
H. E. Oliphant

Inventor
John Dillon.
By H. G. Underwood
Attorney.

UNITED STATES PATENT OFFICE.

JOHN DILLON, OF MILWAUKEE, WISCONSIN.

ELEVATOR-CONTROLLER.

SPECIFICATION forming part of Letters Patent No. 675,002, dated May 28, 1901.

Application filed December 13, 1900. Serial No. 39,709. (No model.)

To all whom it may concern:

Be it known that I, JOHN DILLON, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Elevator-Controllers; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide simple, economical, and efficient motor-control mechanism embodying a hand device in permanent connection with the carrier element of a passenger or freight elevator, said invention consisting in certain peculiarities of construction and combination of parts hereinafter particularly set forth, with reference to the accompanying drawing, and subsequently claimed.

The drawing is a diagram illustrating an application of my motor-control mechanism in conjunction with the carrier element of an elevator.

Referring by letter to the drawing, A indicates the carrier element of an elevator in the form of a platform in lifted position, this platform being provided with a stand B, in which is mounted a spindle C, controlled by a hand-wheel D, fast thereon. A sheave E is also fast on spindle C, and this spindle, with the hand-wheel and sheave, constitutes a "rock-er" hand device, this latter term being employed to designate the combination of said parts or a practical equivalent for the same.

Made fast to sheave E of the hand device herein shown is a continuous cable; but it is practical to employ two cables independently secured to a movable hand device. One stretch, F, of the cable extending down from where it is secured to the hand device passes under an idler-sheave G, permanently located in the elevator-hatchway, and from thence it extends up over another sheave H, that is hung at one end of a tilt-lever I in connection with a hanger J, depending from the hatchway-ceiling, said stretch of the cable being finally fastened, by any suitable means, to the carrier element of the elevator. The other stretch, K, of the cable extending down from where it is secured to the hand device passes under a sheave L, hung on one end of a tilt-lever M, for which a support is provided in the lower part of the elevator-hatch-

way, and from the latter sheave said stretch of the cable extends up over an idler-sheave N to be finally fastened to the carrier element of the elevator by suitable means. The upper idler-sheave N is preferably in connection with one end of a counterweighted tilt-lever P, the utility of this tilt-lever being herein specified.

The tilt-levers I M have their ends farthest from sheaves H L in link connection, the link being either rod or cable, preferably in sections Q Q', joined by a turnbuckle R, so that compensation may be had for slack in the running-cable comprising the stretches F K, above specified, the counterweighted tilt-lever P operating to compensate for possible expansion and contraction of said running-cable after adjustment of the turnbuckle to take up slack. The tilt-lever M has that end thereof farthest from the sheave H in the form of a segmental rack S, that meshes with the spur-pinion hub T of a pulley U, loose on an arbor arranged in the lower part of the elevator-hatchway, and by means of a belt V motion is communicated from pulley U to another pulley W in rigid connection with the start-and-stop element X of a motor Y, by which the raising and lowering mechanism of the carrier element of the motor is controlled.

By manipulation of the hand device the running-cable is actuated to operate the start-and-stop element of the elevator-motor, the arrangement of two stretches of said cable being such that they have proportional movement in opposite directions to swing the tilt-levers connected by a taut standing link, whether the latter be rod or cable in sections or one piece, it being practical to utilize the counterweighted tilt-lever to compensate for slack in said running-cable in case provision for this purpose is not had by splicing the standing link with a turnbuckle.

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

1. The combination of the carrier of an elevator provided with a movable hand device, running-cable having stretches thereof in connection with said hand device and carrier to have proportional movement in opposite directions, a counterweighted support for one

stretch of the cable, upper and lower tilt-levers operative in conjunction with the cable-stretches, a standing link connecting the levers, and an elevator-motor controlled by the movement of said link.

2. The combination of the carrier of an elevator provided with a movable hand device, running-cable having stretches thereof in connection with the hand device and carrier to have proportional movement in opposite directions, upper and lower tilt-levers operative in conjunction with the cable-stretches, a standing link comprising lever-connected sections in turnbuckle union, and an elevator-motor controlled by movement of said link.

3. The combination of the carrier of an elevator provided with a movable hand device, a running-cable having stretches thereof in connection with said hand device and carrier to have proportional movement in opposite directions, a counterweighted support for one stretch of the cable, upper and lower tilt-levers operative in conjunction with the cable-stretches, a standing link comprising lever-connected sections in turnbuckle union, and an elevator-motor controlled by movement of said link.

4. The combination of the carrier of an elevator provided with a movable hand device, upper and lower idler-sheaves, upper and lower tilt-levers linked together, a sheave carried by each lever, an elevator-motor controlled by movement of the link-and-lever mechanism, and running-cable in two stretches connected to the hand device, one stretch being trained under the lower idler-sheave, over the upper lever-sheave and connected to the carrier, the other stretch being trained under the lower lever-sheave over the upper idler-sheave and also connected to the carrier.

5. The combination of the carrier of an elevator, provided with a movable hand device, upper and lower idler-sheaves one of which has counterweighted support, upper and lower tilt-levers linked together, a sheave carried by each lever, an elevator-motor controlled by

movement of the link-and-lever mechanism, and running-cable in two stretches connected to the hand device, one stretch being trained under the lower idler-sheave, over the upper lever-sheave and connected to the carrier, the other stretch being trained under the lower lever-sheave over the upper idler-sheave and also connected to the carrier.

6. The combination of the carrier element of an elevator provided with a movable hand device, upper and lower idler-sheaves, upper and lower tilt-levers, a link connecting the levers and consisting of sections in adjustable union, a sheave carried by each lever, an elevator-motor controlled by movement of the link-and-lever mechanism, and running-cable in two stretches connected to the hand device, one stretch being trained under the lower idler-sheave, over the upper lever-sheave and connected to the carrier, the other stretch being trained under the lower lever-sheave over the upper idler-sheave and also connected to the carrier.

7. The combination of the carrier of an elevator provided with a movable hand device, upper and lower idler-sheaves one of which has counterweighted support, upper and lower tilt-levers, a link connecting the levers and consisting of sections in adjustable union, a sheave carried by each lever, an elevator-motor controlled by movement of the link-and-lever mechanism, and running-cable in two stretches connected to the hand device, one stretch being trained under the lower idler-sheave, over the upper lever-sheave and connected to the carrier, the other stretch being trained under the lower lever-sheave over the upper idler-sheave and also connected to the carrier.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

JNO. DILLON.

Witnesses:

N. E. OLIPHANT,
B. C. ROLOFF.