

(No Model.)

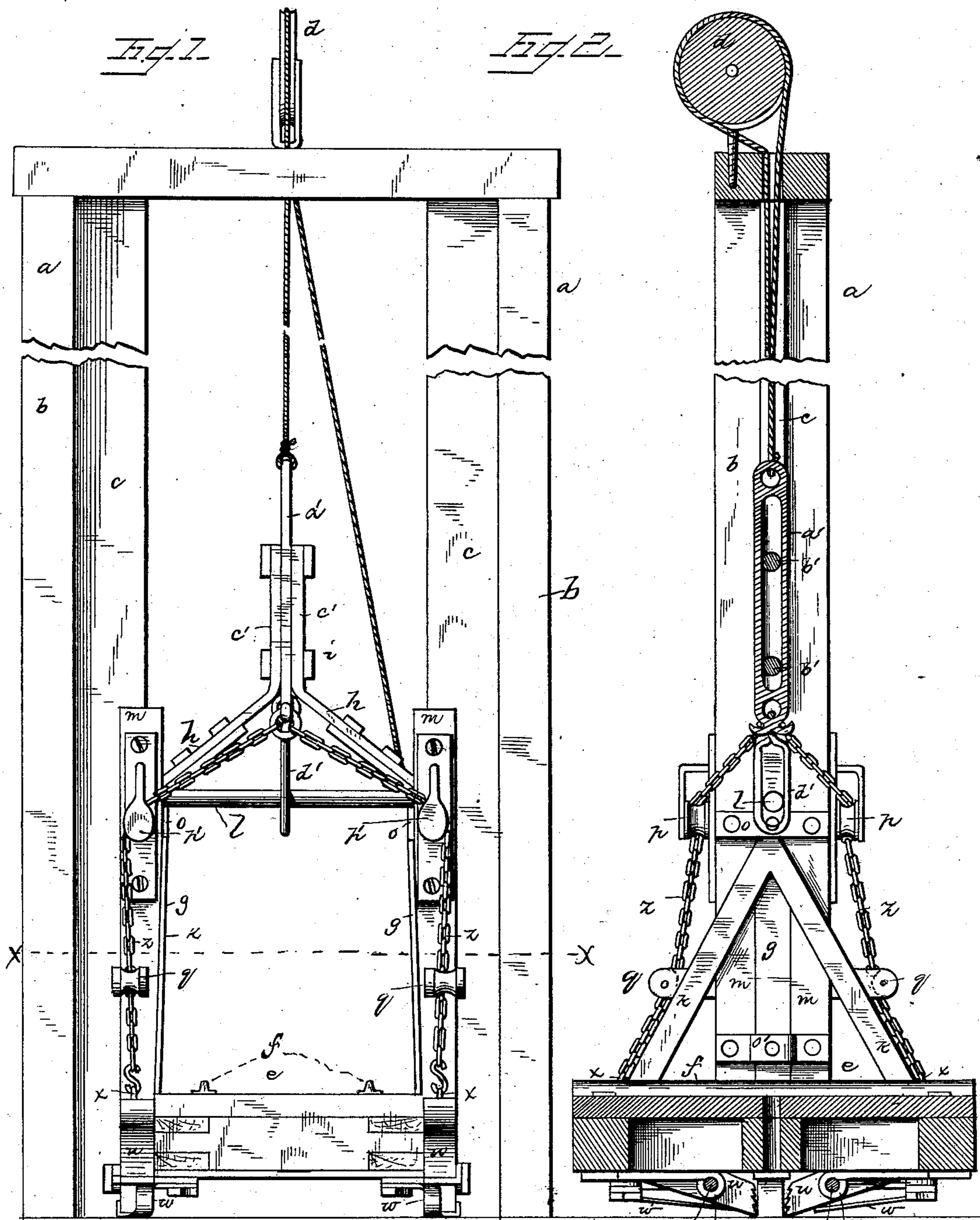
2 Sheets—Sheet 1.

J. WIMENOUR.

ELEVATOR.

No. 302,078.

Patented July 15, 1884.



WITNESSES

F. L. Ourand
E. J. Tiggers

INVENTOR

Jacob Wimenour
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Attorneys

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2 Sheets—Sheet 2.

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Fig. 5

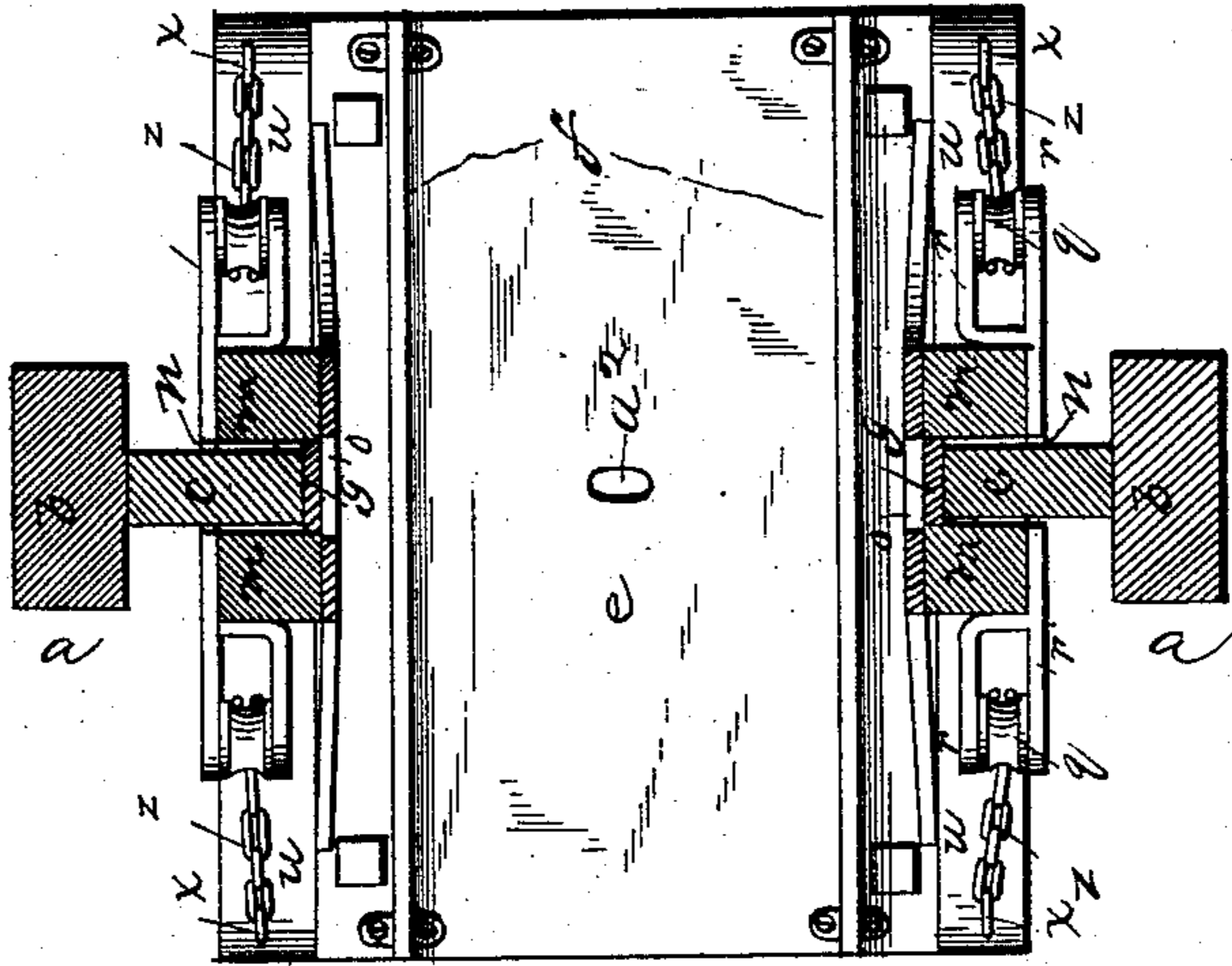


Fig. 4

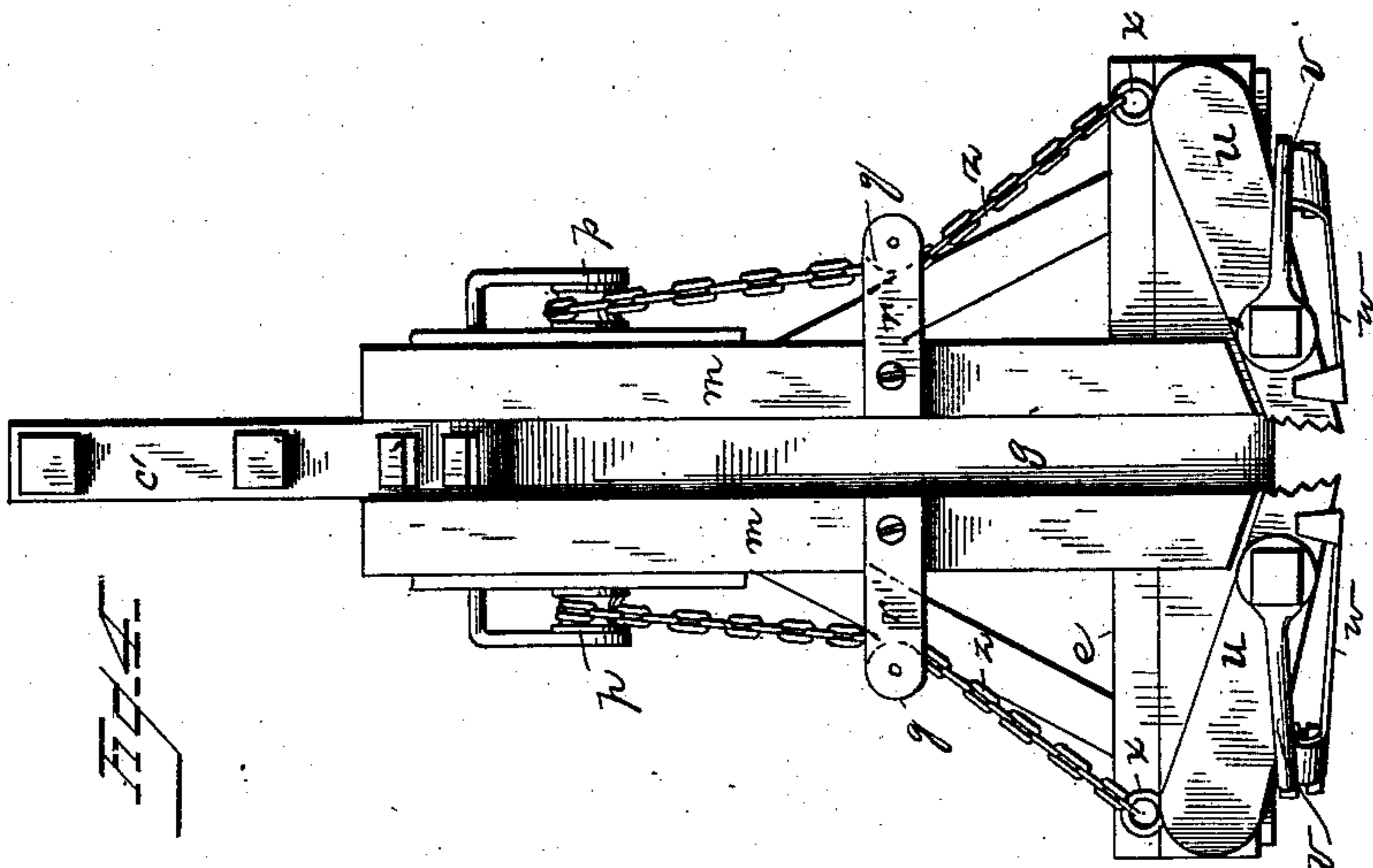
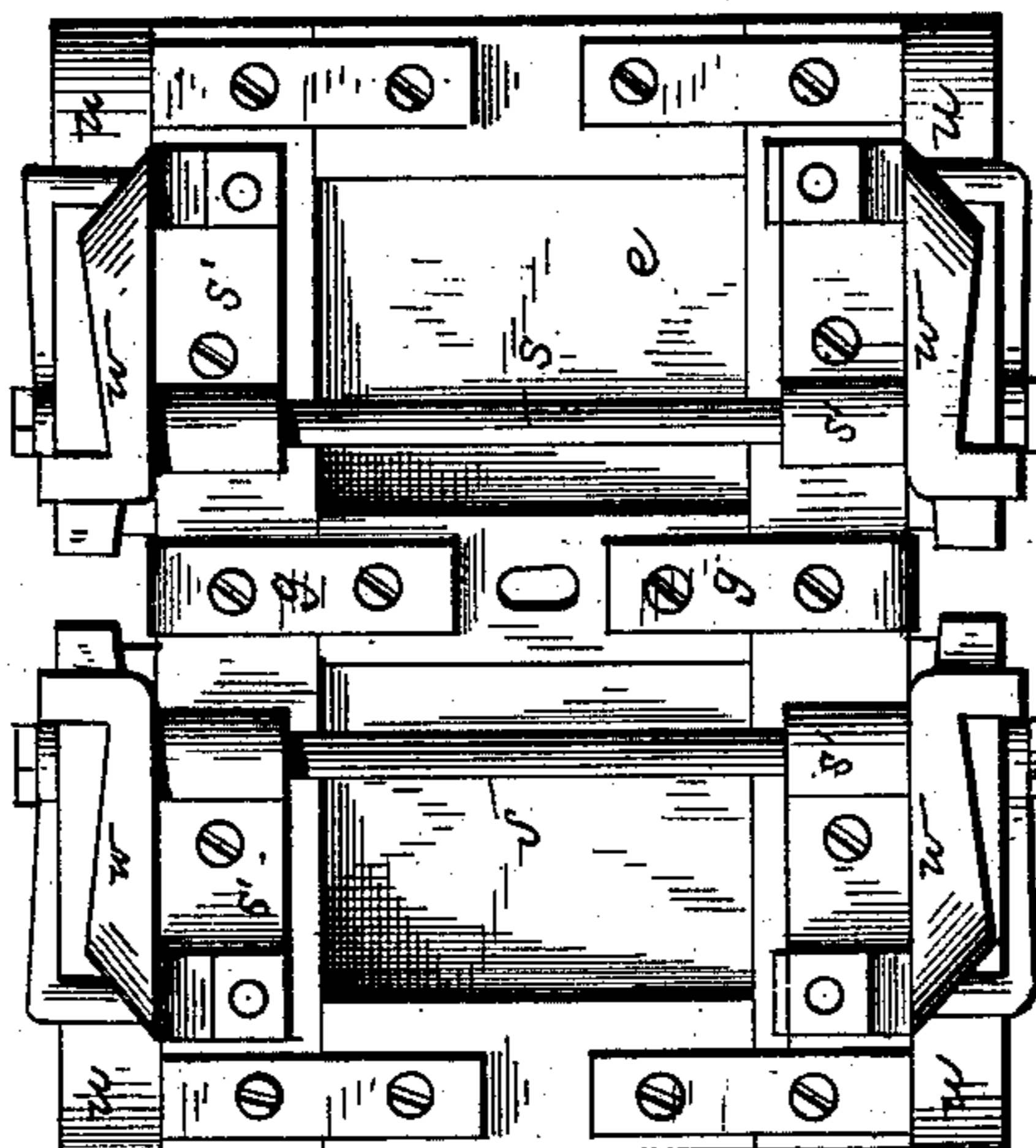


Fig. 3



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UNITED STATES PATENT OFFICE.

JACOB WIMENOUR, OF WASHINGTON, INDIANA.

ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 302,078, dated July 15, 1884.

Application filed January 30, 1884. (No model.)

To all whom it may concern:

Be it known that I, JACOB WIMENOUR, a citizen of the United States, residing at Washington, in the county of Daviess and State of Indiana, have invented a new and useful Elevator, of which the following is a specification, reference being had to the accompanying drawings.

Figure 1 is a front elevation of a hoisting-machine embodying my improvements. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a bottom view of the car. Fig. 4 is an end view of the car removed from the track-rails, and Fig. 5 is a horizontal sectional view in plan on line *x x*, Fig. 1.

This invention has relation to hoisting-machines for elevating coal and other heavy material; and it consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

The object of this invention is to produce a hoisting-machine or elevator in which, should the rope or chain employed to elevate the car break, the car will be automatically and instantly stopped in its descent in its ways by a system of gravity brakes or levers.

Referring by letter to the accompanying drawings, *a a* designate the elevator-ways, composed of the uprights *b b*, to which the track-rails *c c* are secured in any suitable manner. *d* designates the pulley over which the operating rope or chain works.

e designates the platform of the carriage, which in this instance is prepared for elevating coal-cars, and is provided with a track, *f*, on which the car is to be run. This platform is supported in hangers *g g*, connected to the arms *h h* of a bail, *i*, and strengthened by triangular brace-arms *k k*, which really form a part of the hangers *g*, and are connected through their angle-bends to the under side of the platform, near its ends, as shown. The hangers *g g* are connected at their upper ends by a cross-brace, *l*. Standards or uprights *m m*, with spaces *n* between them to form the grooves for the track-rails *c c*, are secured at the lower ends to the platform, and are connected to the vertical arms of the hangers *g g* by metal stirrups *o o'*, as shown. The outer

edges of the standards *m m* are metal-faced near their upper ends, and are provided with pulleys *p* (four in number—one for each standard *m*) on axes at right angles to the edge faces of said standards, as shown. Below these pulleys *p* are the pulleys *q*, having bearings in arms *r r*, and revolving in planes at right angles to those in which the pulleys *p* revolve. Rods *s s* traverse the under side of the platform *e* transversely, and are supported in bearings *s' s'*, secured to the platform. The ends of these rods *s s* project beyond the sides of the platform, and on these projecting ends are pivoted the weighted levers or dogs *u*, (four in number—two for each track-rail.) The ends of the rods *s s* pass through the dogs *u*, near their front ends, which are beveled and serrated, as shown, so that they will bite upon the track-rails when in contact therewith and stop the descent of the car. Guard-stops *v* are provided, one for each dog *u*, and each dog *u* is also provided with a spring, *w*, which holds its dog normally in contact with its track-rail. The weight ends of the dogs *u* are provided with eyes *x*, which engage the lower ends of chains *z*, which pass up under the pulleys *q*, thence over the pulleys *p*, which are provided with guards *p'*, to keep the chains from accidentally running off, and are connected to the lower end of a slotted slide-plate, *a'*, working on bolts *b'* between the vertical arms *c'* of the bail. The operating rope or chain is connected to the upper end of the slotted slide-plate *a'*, and runs over the pulley above the elevator-ways and down through a hole, *a''*, in the center of the platform. The lower end of the slotted plate *a'* is provided with a stop-link, *d'*, through which the cross-brace *l* at the upper end of the hangers *g g* passes. As the car is operated by the hoisting-rope, the dogs *u u* are out of engagement with the track and are inoperative; but should the hoisting-rope become broken the weighted dogs will fall into engagement with the track-rails *c c* and instantly stop the car, the serrations on the dogs biting the track-rails *c c*, and thus preventing the descent of the car in the ways.

This hoisting apparatus is cheap, simple, and durable, and is positive in its action. There is nothing about it that can get out of

order, excepting the rope, which, when broken, will permit no other damage, and may be easily replaced.

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

1. In an elevator, the combination, with the platform supported in hangers, to which the guideways are secured, and provided with the transverse rods beneath it, having projecting ends, of the pivoted weighted serrated dogs on said shafts, the springs for holding normally in engagement with the track-rails, the pulleys *p* and *q*, and the chains connecting the pivoted dogs with the lower end of the slotted slide-plate between the vertical arms of the hanger-bail, and the operating-rope, substantially as specified.

2. In an elevator, the combination, with the platform-hangers and hanger-bail, connected

by the cross-brace, of the slotted plate working between the vertical arms of the hanger-bail, and provided at its lower end with the stop-link, substantially as specified.

3. In an elevator, the combination, with the platform, of the hangers provided with the triangular braces, of the standards secured to the platform at their lower ends and connected to the hangers by the metal stirrups, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JACOB ^{his} × WIMENOUR.
mark.

Witnesses:

JNO. A. GEETING,
JAMES C. LASELLE.