

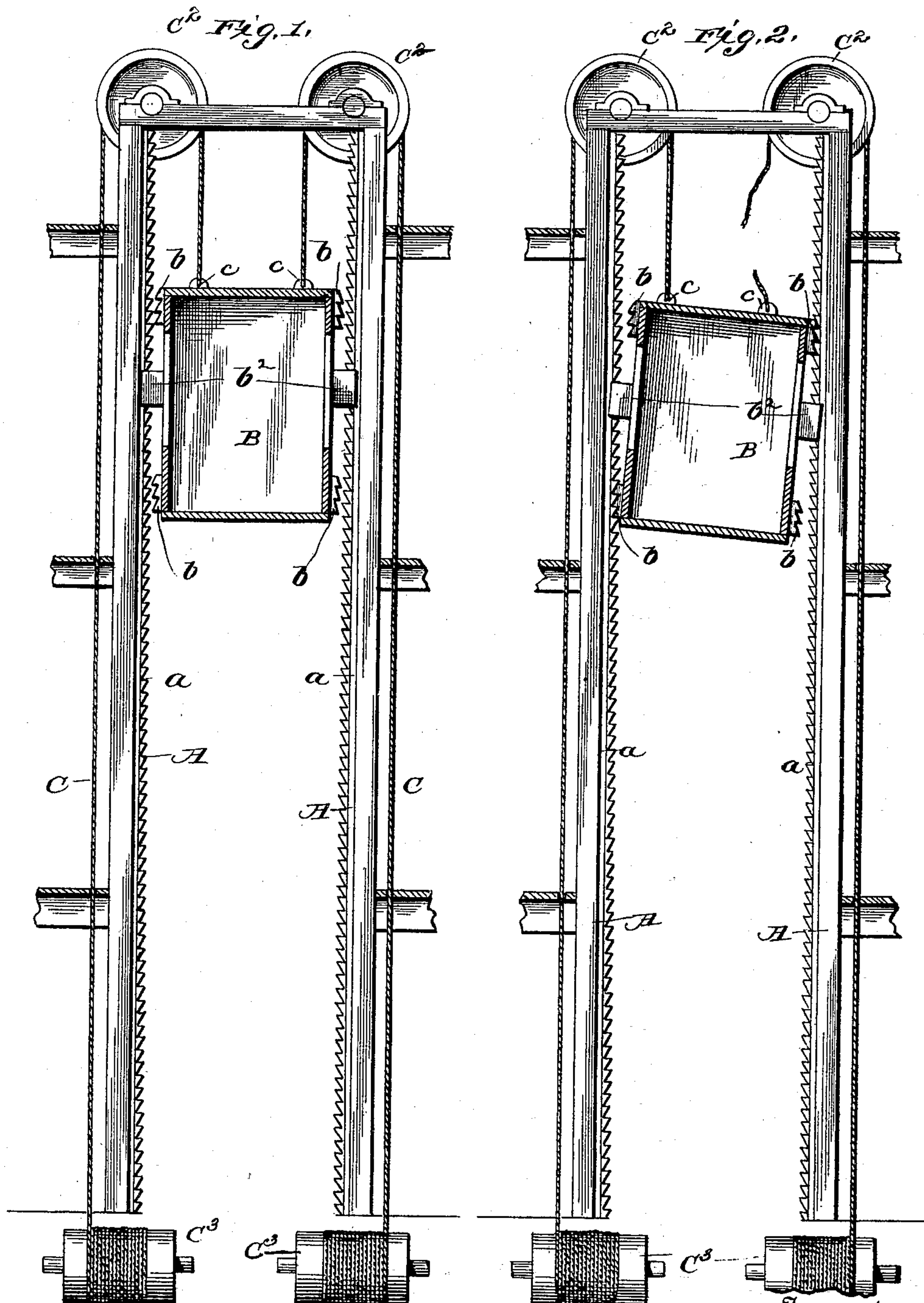
No. 630,473.

Patented Aug. 8, 1899.

H. R. TRACY.
ELEVATOR.

(Application filed Apr. 17, 1893. Renewed Jan. 11, 1899.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

HARRIET RUTH TRACY, OF NEW YORK, N. Y.

ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 630,473, dated August 8, 1899.

Application filed April 17, 1893: Renewed January 11, 1899. Serial No. 701,852. (No model.)

To all whom it may concern:

Be it known that I, HARRIET RUTH TRACY, a citizen of the United States, residing at New York, (New Brighton,) in the county of Richmond and State of New York, have invented certain new and useful Improvements in 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.

This invention relates to elevators.

The object of the invention is to produce an elevator of such construction that sudden descent of an elevator-car, liable to result in injury to passengers or to the car itself, will be prevented when such rapid descent would occur from the breaking or derangement of any of the parts of the hoisting apparatus.

With these objects in view the invention consists of the constructions hereinafter described, and specifically set forth in the claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of an elevator car and shaft constructed in accordance with my invention, the arrangement of the independent drums being shown and the car being shown in its normal position; and Fig. 2 is a similar view, the car being shown in the position which it would assume in case of the breaking of one of the hoisting-ropes.

In the drawings, A A represent uprights forming an elevator-shaft, to which uprights are attached racks *a*, extending the entire height of the elevator-shaft.

B represents an elevator-car suitably arranged in the shaft and designed to be guided when in working order by suitable projections *b*², engaging the uprights A. The car is provided on two opposite sides—those adjacent to the racks *a* in the shaft—with teeth *b*, preferably arranged at the upper and lower ends of these sides. The hoisting-ropes C, of which there are preferably two, as shown, are attached to the car at points *c c*, removed from the center of the car, the points of attachment being preferably on an imaginary straight line drawn horizontally across the top of the car from one upright A to the other.

The hoisting-ropes C C pass over pulleys C², arranged at the upper end of the shaft, and they are attached to and wound upon drums C³ C³, arranged below the shaft and

designed to be driven by any suitable motive power. There is a drum C³ provided for each of the hoisting-ropes, and the mechanism by which it is driven is preferably connected with the motive power independently of the other, so that in case of the breaking or displacement of either rope or any of its appurtenances the other rope will not be affected.

It will be clear from the foregoing that an elevator constructed in accordance with my invention will be perfectly safe under the circumstances described and that by the arrangement shown an effective and inexpensive safety device is provided, whereby danger of injury to the car or its occupants in case of the breaking of a part of the hoisting apparatus will be avoided.

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

1. An elevator-car provided with projections on its opposite sides, at points approximately midway of the height of the car, to fit upon vertical rack-bearing guideways in the shaft, and racks near the upper and the lower ends of the opposite sides of the car for engaging with the racks of the shaft, substantially as described.

2. An elevator-car provided with projections on its opposite sides, at points approximately midway of the height of the car, to fit upon vertical rack-bearing guideways in the shaft, racks near the upper and the lower ends of the opposite sides of the car for engaging with the racks of the shaft, and two hoisting-ropes attached to the car at points removed from its center, substantially as described.

3. An elevator-car provided with projections on its opposite sides, at points approximately midway of the height of the car, to fit upon vertical rack-bearing guideways in the shaft, racks near the upper and the lower ends of the opposite sides of the car for engaging with the racks of the shaft, two hoisting-ropes attached to the car at points removed from its center, and independent drums upon which the ropes are wound, substantially as described.

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

HARRIET RUTH TRACY.

Witnesses:

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