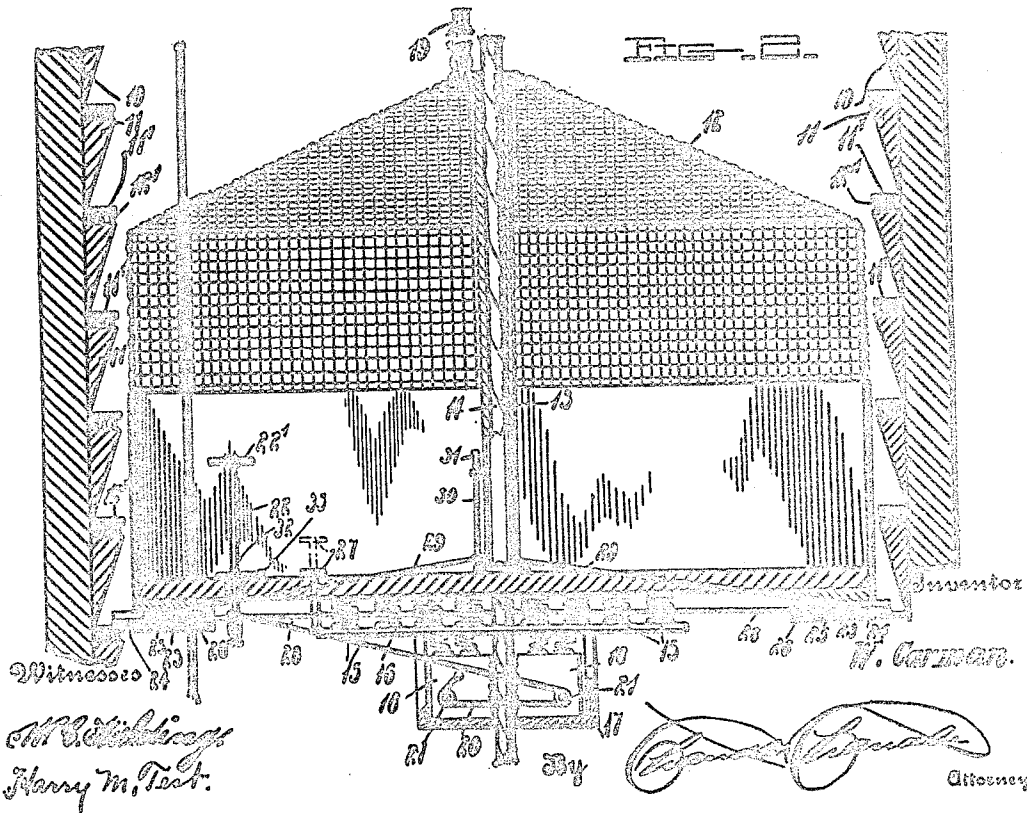
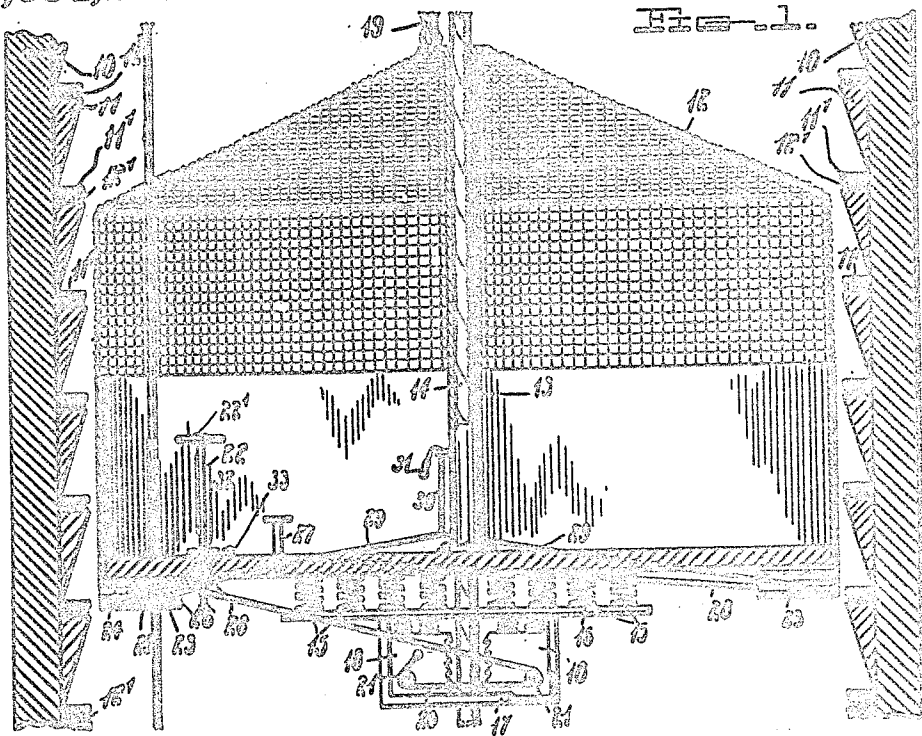


APPLICATION FILED JUNE 8, 1918.

Patented June 10, 1913.

1,064,287.



UNITED STATES PATENT OFFICE.

WILLIAM CARMAN, OF RICHMOND, VIRGINIA, ASSIGNOR OF ONE-HALF TO EDWARD C. JOERGENSEN, OF BRATTLEBORO, VERMONT.

ELEVATOR-BRAKE.

1,064,287.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed June 8, 1912. Serial No. 702,425.

To all whom it may concern:

Be it known that I, WILLIAM CARMAN, a citizen of the United States, residing at Richmond, in the county of Henrico, State of Virginia, have invented certain new and useful Improvements in Elevator-Brakes; 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 improvements in elevator brakes, and has particular reference to a manually operated brake.

The principal object of the invention is to provide a simple device for checking the downward movement of an elevator car when the rope breaks, and means for holding the elevator car from further downward movement.

Other objects and advantages will be apparent from the following description and with particular reference to the accompanying drawings.

In the drawings: Figure 1 is a vertical section through an elevator car and shaft showing my invention, and Fig. 2 is a similar view showing the parts in operative position.

Referring particularly to the drawings, 10 represents the side guides of the elevator shaft. Formed in these guides, at equal distances apart, and the entire length of the same, are the stop shoulders or ledges 11, for engagement by a portion of the device to be described later. On each of the ledges is disposed a buffer plate 11' supported by the buffer springs 12' which absorb a great amount of shock incident to the sudden engagement of the device to be described with the plate.

A car 12 is adapted to move up and down the shaft, and is provided in the center of its interior with a vertically extending tube 13, through which passes the brake cable 14, which cable extends the length of the shaft, and is secured at the top and bottom thereof. Suspended beneath the floor of the car, by means of the springs 15, is a bumper plate 16. Mounted on the under side of the plate 16, near the center are the guides 17,

in which are slidably mounted the cable gripping jaws 18, which are adapted to grip the cable 14, to check the downward movement of the car when the rope 19 breaks. The function of the springs 15, it will be observed, is to absorb the shock of the car incident to the sudden gripping of the cable by the jaws. A cord 20 is secured at one end to one of the jaws, and has its other end secured to the lower end of a vertically disposed staff 22, mounted in the car. On the upper end of the staff is mounted a hand wheel 22', within easy reach of the hand of the operator. On this staff, and on a level with the floor of the car, is a ratchet wheel 32, adapted to be engaged by the foot pawl 33, pivoted adjacent thereto. Thus when the rope breaks, the operator turns the staff 22, which winds the cable 20 and draws the jaws 18 into biting engagement with the cable 14.

What is claimed is:

1. A brake device for elevators comprising a cable extending centrally the length of the elevator shaft, a guide tube in the car to receive the cable slidably there-through, a spring bumper plate on the bottom of the floor of the car, jaws slidably mounted on the bumper plate for engagement with said cable, a rotatable staff in the car and connections between the staff and the jaws for moving the jaws into engagement with the cable.

2. A brake device for elevators comprising a cable extending centrally the length of the elevator shaft, a guide tube in the car to receive the cable slidably there-through, a spring bumper plate on the bottom of the floor of the car, jaws slidably mounted on the bumper plate for engagement with said cable, grooved pulleys on the jaws, a rotatable staff in the car, and a cable connected to the staff at one end and to one of the jaws at its opposite end and passing over said grooved pulleys.

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

WILLIAM CARMAN.

Witnesses:

E. E. MARTINEAU,
F. H. NESBITT.