(No Model.)

G. HANCOCK.

SAFETY BRAKE FOR ELEVATORS.

No. 605,820. Patented June 14, 1898.

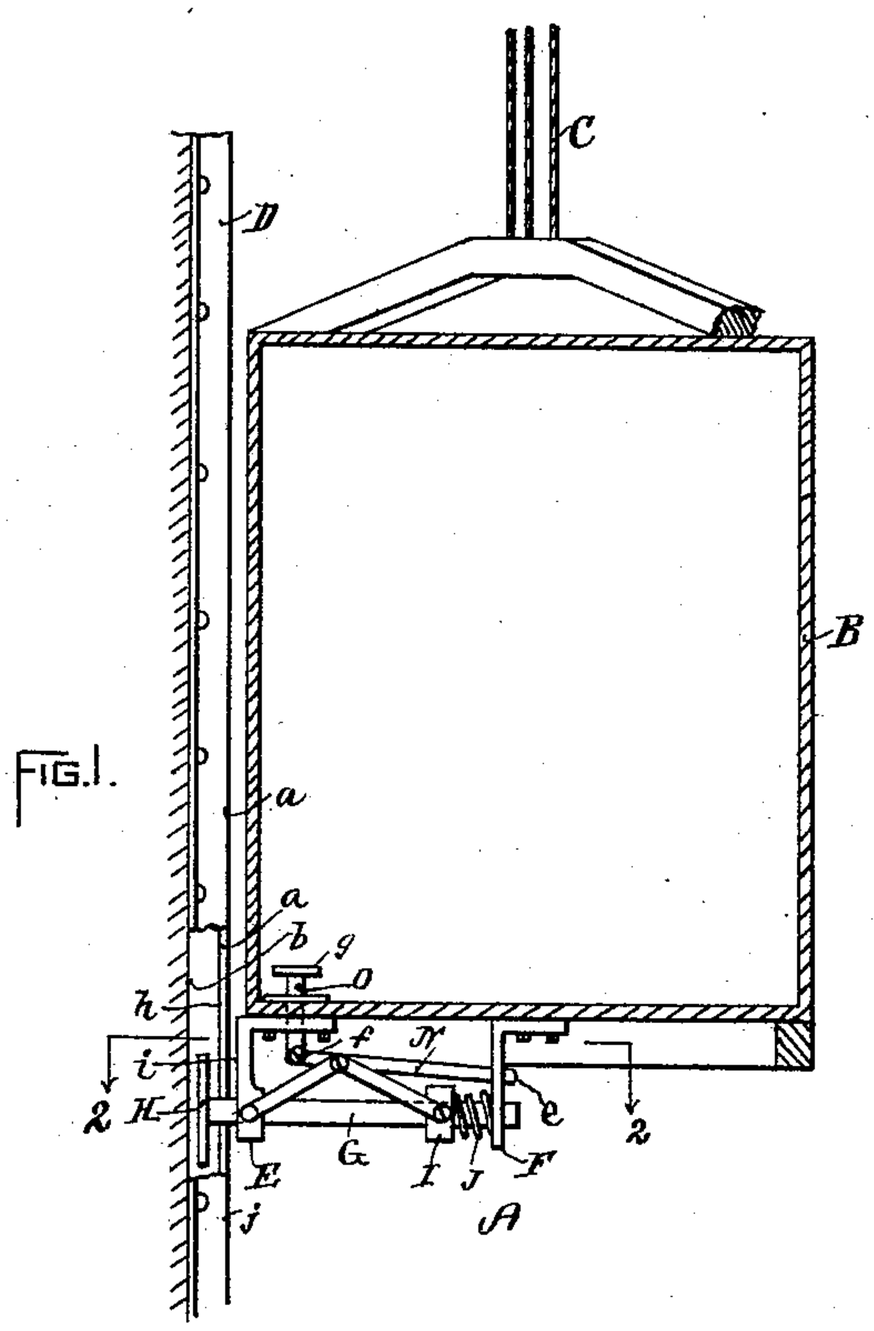

FIG. 1.

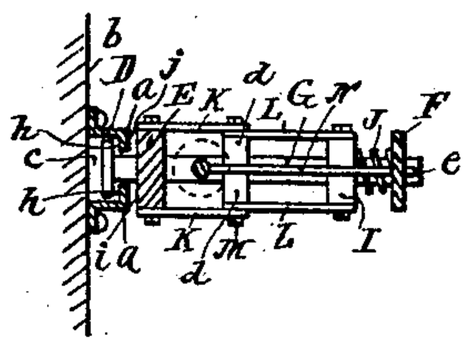

FIG. 2.

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GEORGE HANCOCK, OF PROVIDENCE, RHODE ISLAND.

SAFETY-BRAKE FOR ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 605,820, dated June 14, 1898.

Application filed April 23, 1898. Serial No. 678,663. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HANCOCK, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Safety-Brakes for Elevators, of which the following is a specification.

The falling of an elevator-car upon the breaking of the hoisting-rope is quite a common occurrence; and it is the object of my invention to provide convenient means for instantly applying a brake to check the descent of the car, the said brake to be operated by the attendant who runs the elevator; and my invention consists in the improved combination of the elevator-car with a slotted clamping-track arranged exteriorly of the car and with pedal-operated toggle-levers and a clamping-head, as hereinafter fully set forth.

In the accompanying drawings, Figure 1 represents a vertical section of the elevator-car, showing a side view of the clamping mechanism of the safety-brake, a portion of the slotted clamping-track being broken away to show the clamping-head. Fig. 2 represents a section taken in the line 2 2 of Fig. 1.

In the drawings, A represents the elevator-well, B the elevator-car, and C the hoisting-ropes attached to the car. The slotted clamping-track D is preferably made of angle-iron bars *a a*, which are bolted to the side *b* of the elevator-well.

The clamping mechanism of the safety-brake is attached to the under side of the car and consists of the pendent brackets E and F, which form the bearings for the sliding bar G, provided at its outer end with the frictional clamping-head H, which passes up and down within the chamber *c* of the clamping-track. To the sliding bar G is firmly secured the collar I, and between the collar I and the bracket F upon the bar G is placed the spiral spring J, which operates to move the bar G in the outward direction, and thus serves to prevent the accidental engagement of the frictional clamping-head H with the clamping-track. Upon the opposite sides of the bracket E and the collar I are jointed the toggle-links K L K L, which are also jointed together at the opposite ends of the connecting-bolt M, which passes loosely through a perforation made in the lever N, suitable sleeves or collars *d d* being placed upon the connecting-bolt M at the opposite sides of the lever N, thus preserving the proper parallelism of the parts. The inner end *e* of the lever N passes loosely through a perforation made in the bracket F, which constitutes the fulcrum of the said lever, and to the outer end *f* of the said lever is jointed the vertical sliding bar O, the upper end of which forms a pedal *g*, upon which the operator of the elevator is to step upon the breakage of the hoisting-rope, and the weight of the operator transmitted by the lever N to the toggle-jointed bars K L K L will serve to draw the frictional clamping-head H inwardly against the inner side *h* of the clamping-track D, which will cause the car B to swing toward the said track until the frictional side *i* of the bracket E engages with the outer side *j* of the clamping-track, at which time the toggle-jointed links will be in a position to hold the said clamping-head and bracket in firm engagement with the track to prevent the dangerous acceleration of the downward movement of the car.

I claim as my invention—

The combination of the elevator-car, the slotted clamping-track, arranged exteriorly of the car, the sliding bar provided with the clamping-head, the toggle-links for operating the sliding bar in one direction, means for operating the sliding bar in the opposite direction, the lever connected with the toggle-links, and the pedal connected with the lever, substantially as described.

GEORGE HANCOCK.

Witnesses:
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