No. 669,093. Patented Mar. 5, 1901.

M. L. MATTSON.

BRAKE APPARATUS FOR ELEVATOR CARS.

(Application filed Aug. 22, 1900.)

(No Model.)

Fig. 1.

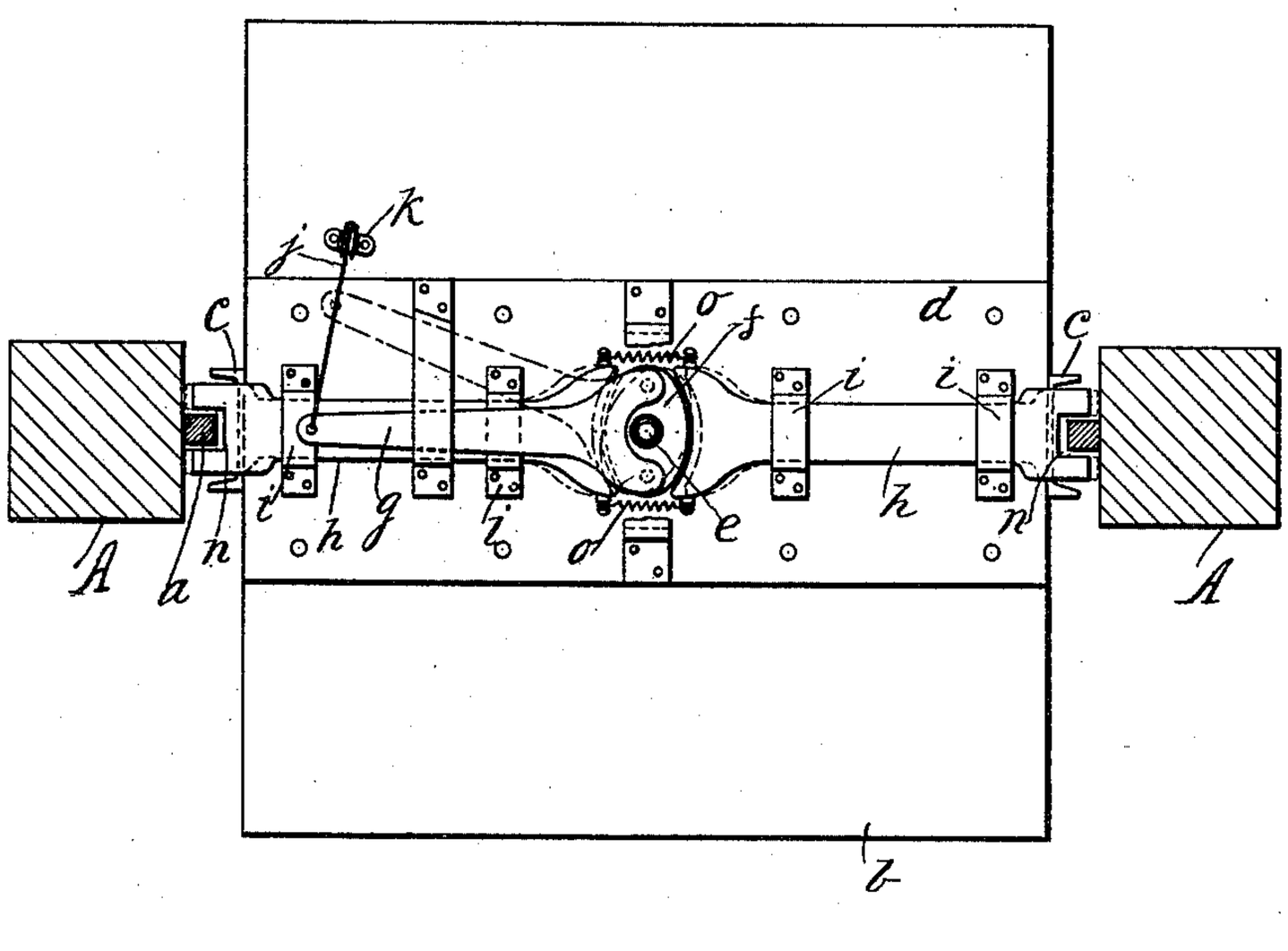
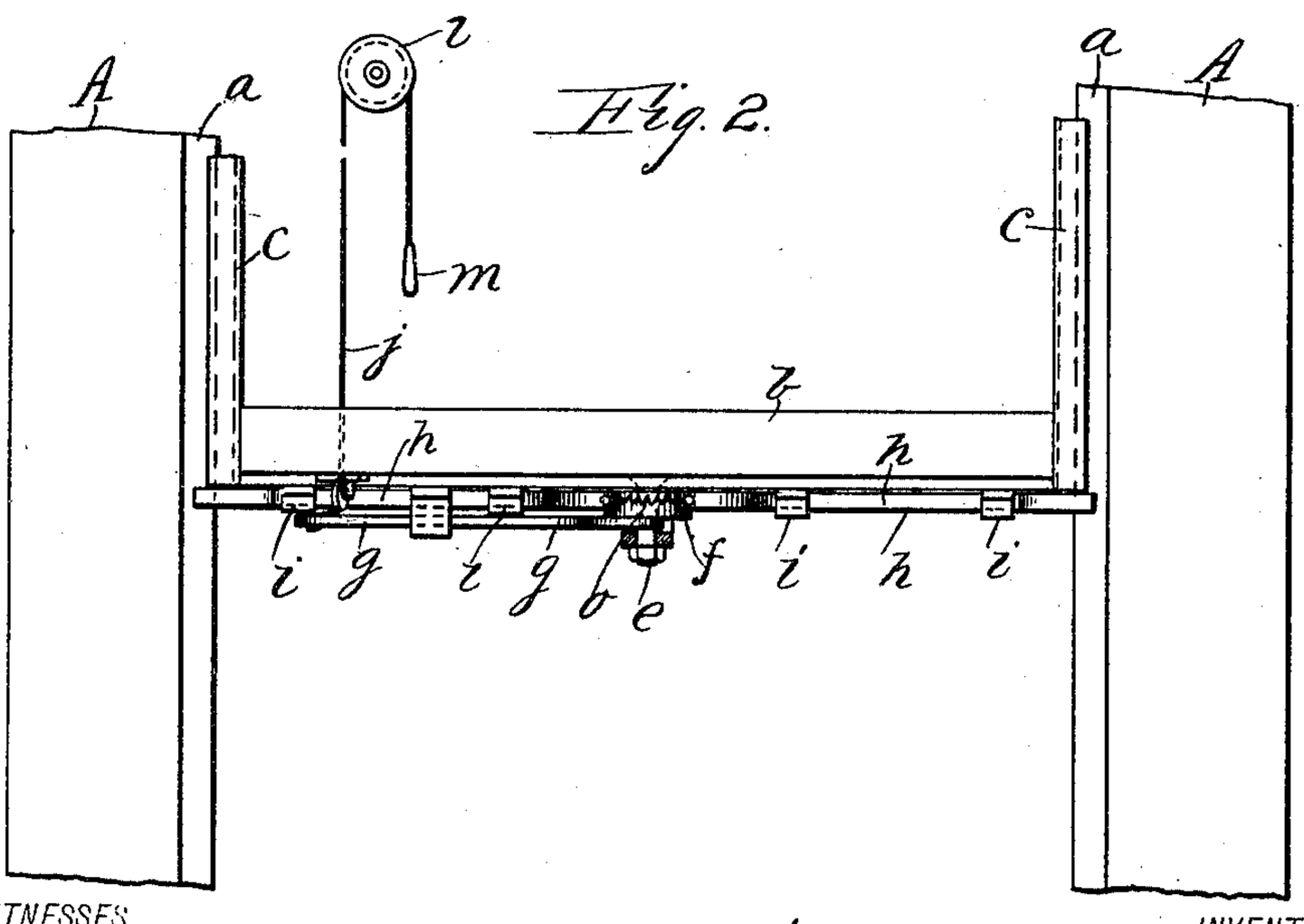


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

MAGNUS LEONARD MATTSON, OF NEW YORK, N. Y.

BRAKE APPARATUS FOR ELEVATOR-CARS.

SPECIFICATION forming part of Letters Patent No. 669,093, dated March 5, 1901.

Application filed August 29, 1900. Serial No. 28,403. (No model.)

To all whom it may concern:

Be it known that I, MAGNUS LEONARD MATTSON, a citizen of the United States of America, and a resident of the borough of Manhattan, New York city, and State of New York, have invented certain new and useful Improvements in Brake Apparatus for Elevator-Cars, of which the following is a specification.

The object of my invention is to provide a simple and cheap but effective brake, more particularly for freight-elevator cars, to be operated by the conductor, the construction and operation of which I will proceed to describe, reference being made to the accompanying drawings, in which—

Figure 1 is a plan view of an inverted car with my improved brake apparatus applied and a horizontal section of the guide-posts and guideways; and Fig. 2 is a side elevation of the lower part of the car, brake apparatus, and parts of the guide-posts and guideways.

A represents the guide-posts; *a*, the guideways; *b*, the car-platform, and *c* the posts of the car.

The middle portion of the under side of the car between the posts *c* is reinforced with a strong metallic plate *d*, and at the center of this plate is a downwardly-projecting pivot-stud *e*, on which a double-acting cam *f* is pivoted, so as to turn freely, and the cam is provided with a lever *g* for actuating it, said lever preferably ranging in the direction of one of the posts *c* of the car and reaching nearly thereto. A pair of strong thrust-bars *h* are arranged in suitable slideways *i* between the cam and the guide-posts, respectively, to be thrust outward against the guide-posts by the cam and brake the car by frictional contact with said posts when the cam is actuated by the conductor, for which a rope *j* is attached to the free end of the lever and extended laterally therefrom under a guide-pulley *k* and thence upward in any suitable arrangement above the car-platform adapted for the conductor to grasp it when the car is falling to operate the cam. In this example said rope is represented as arranged over a pulley *l*, located in an elevated position on the car and provided with a handle *m*, pendent from the pulley. The heads of the thrust-bars acting on the guide-posts are suitably notched at *n* to straddle the guideways *a* and bear principally on the posts each side of the guideways; but they may bear to some extent in the bottoms of the notches on the guideways, if desired.

Retracting-springs *o* are connected to the thrust-bars for withdrawing them when the cam is released by the conductor. These springs may be arranged in any approved way. In this example they are connected to the thrust-bars respectively; but they may be arranged in any other suitable way.

In this example of my invention the thrust-bars and the operating cam and lever are arranged under the platform, which is thought to be the best position for sustaining the shock of the falling car; but they may be otherwise arranged, if desired—for example, under the upper cross-head of the car.

What I claim as my invention is—

1. The combination with the car and the guide-posts, of a pair of thrust-bars, arranged in a line transversely of the car and adapted to be thrust in opposite directions respectively against said posts, a double-acting cam arranged between the inner ends of said thrust-bars, a lever attached to the cam for operating it, a pull-cord and guide-pulleys therefor, to operate the lever, and springs to retract the thrust-bars, said pull-cord extended upward in the car suitably for being grasped by the conductor.

2. The combination with the car and the guide-posts, of the reinforcing-plate under the middle of the platform of the car, pendent pivot-stud centrally located on said reinforcing-plate, double-acting cam and its actuating-lever mounted on said pivot, thrust-bars carried in slideways of said reinforcing-plate and adapted to be thrust against the guide-posts respectively by the cam, and the lever-actuating cord and guide-pulleys arranged for carrying the cord suitably for use by the conductor for applying the brakes.

Signed at New York city, New York, this 30th day of June, 1900.

MAGNUS LEONARD MATTSON.

Witnesses:
C. SEDGWICK,
J. M. HOWARD.