

No. 815,401.

PATENTED MAR. 20, 1906.

J. A. BRECKON.
FIRE ESCAPE.

APPLICATION FILED MAR. 24, 1905.

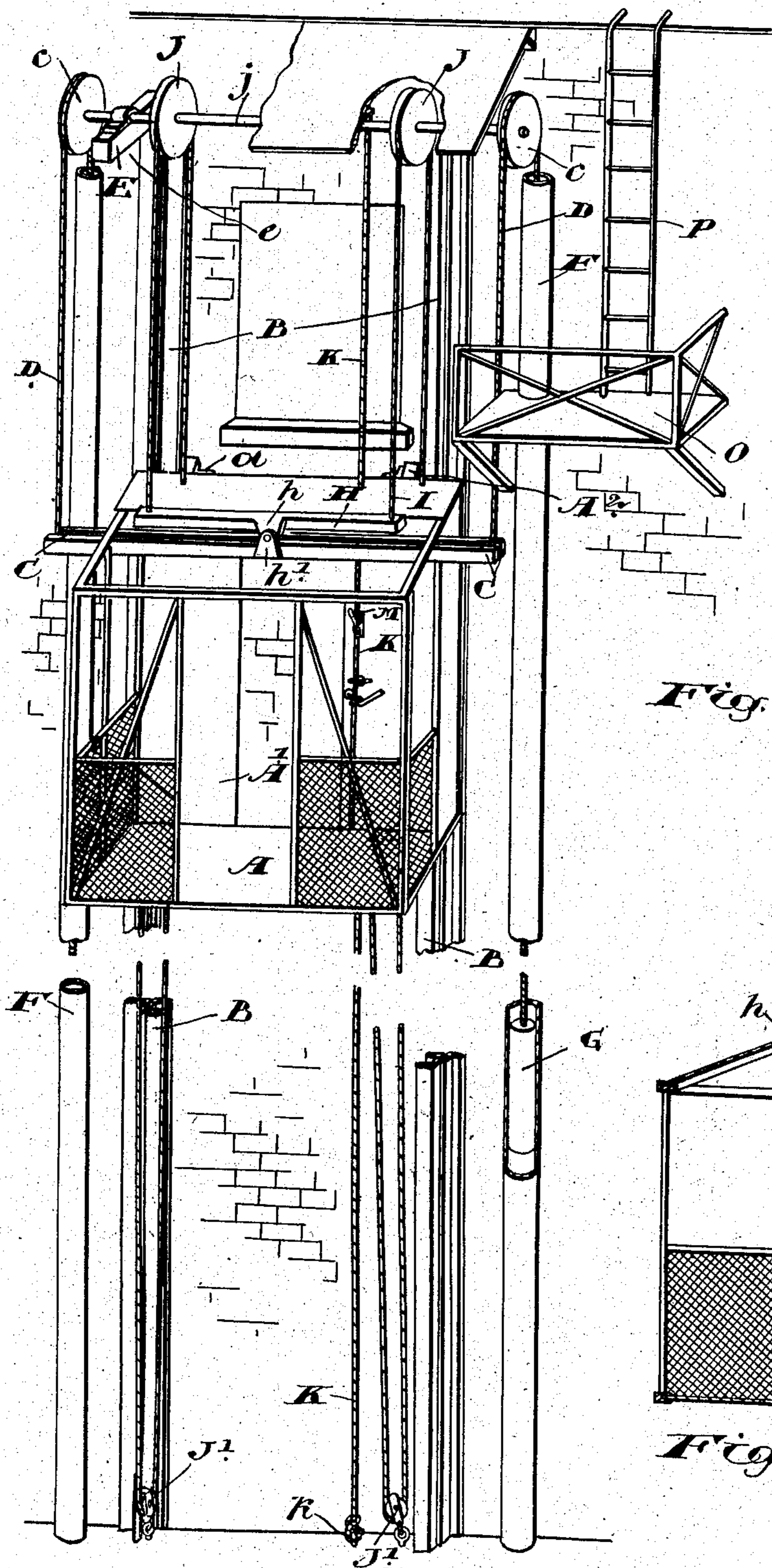


Fig. 1.

Witnesses.
Chas. B. K.
N. Lawler.

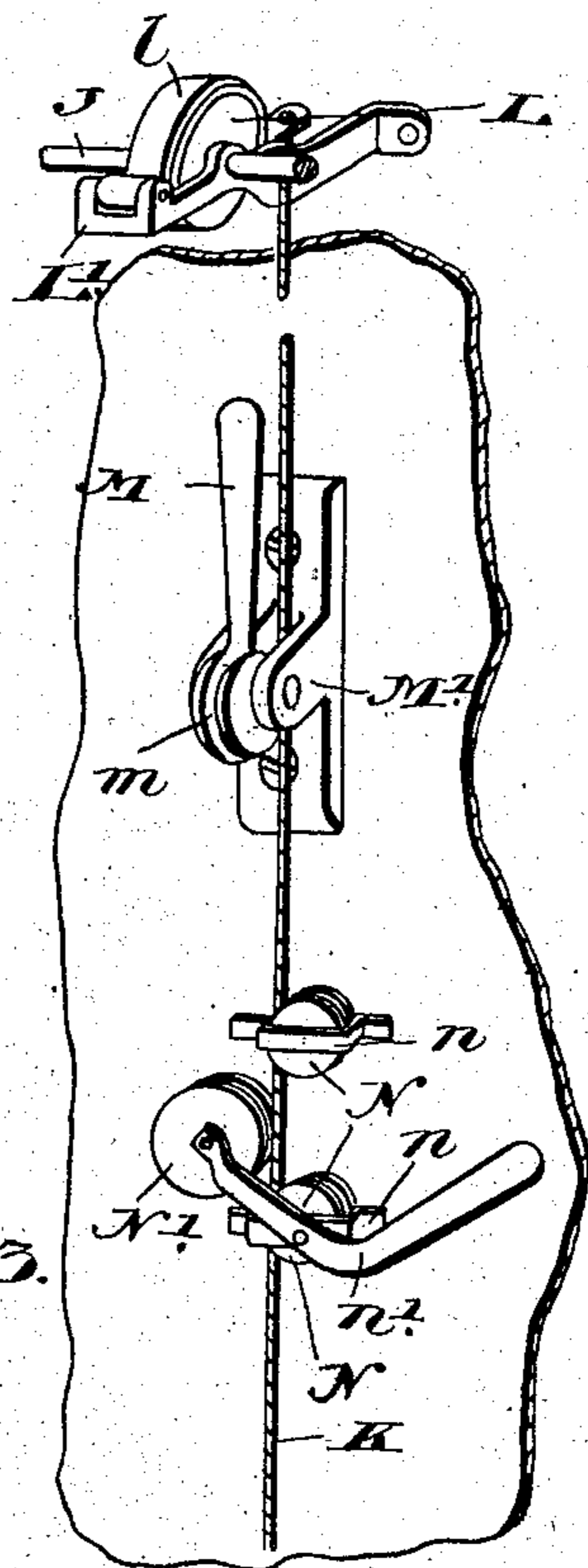


Fig. 3.

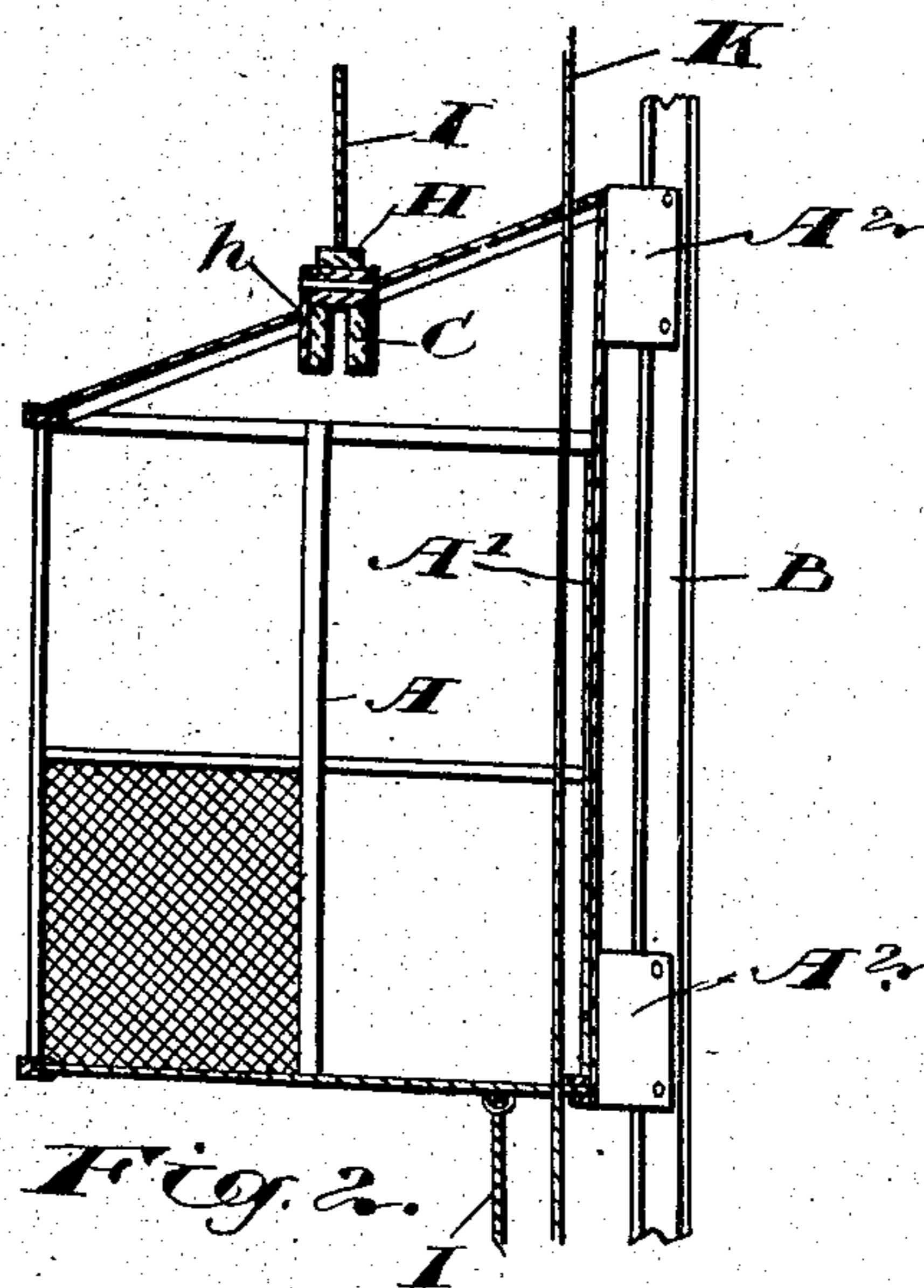


Fig. 2.

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UNITED STATES PATENT OFFICE.

JOSEPH ALBERT BRECKON, OF TORONTO, CANADA, ASSIGNOR OF
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FIRE-ESCAPE.

No. 815,401.

Specification of Letters Patent.

Patented March 20, 1906.

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To all whom it may concern:

Be it known that I, JOSEPH ALBERT BRECKON, manufacturer, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Fire-Escapes, of which the following is the specification.

My invention relates to improvements in fire-escapes; and the object of the invention is to devise a simple, strong, durable, and safe escape which may be readily controlled when ascending or descending; and it consists, essentially, of an elevator car or cage, suitably U-shaped guideways secured to the side of the building and in which the same is guided as it ascends or descends, ropes attached to the cage at each side and passing over pulleys under the eaves and provided with counterweights vertically movable in tubes secured to the sides of the building, a walking-beam secured to the top of the cage and ropes or chains connected to the same and passing up through pulleys under the eaves and down through the cage and around a pulley at the ground and up to the bottom of the cage, and a controlling-rope, controllers, and brake, the parts being arranged and constructed in detail, as hereinafter more particularly explained.

Figure 1 is a perspective view of my improved fire-escape, the upright guideways, pipes, and ropes being intermediately broken away. Fig. 2 is a vertical section of the car. Fig. 3 is an enlarged detail of the controlling device.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the cage or car, which is provided at the inside with the sliding door A'.

A² represents bars secured to the angle-brackets *a* at the inside of the car. The bars A² are preferably made of wood and extend the partial length of the car and fit into the two grooved guideways B, having the inner side open and facing each other, such grooved guideways being suitably secured to the wall from the eaves to the ground.

C C are bars secured in the top of the car and projecting beyond the sides thereof.

D D are cords or chains connected to the ends of the bars C C and extending over pulleys *c*, loosely held on the ends of the spindle *j*, journaled in bars E under the eaves,

and down into the vertical tubes F, which extend from the eaves to the ground, the bottom of each of the cords being provided with a counterbalance-weight G, both of which combined are preferably sufficiently heavy to counterbalance the weight of the car plus the weight of a man therein.

H is an equalizing-bar pivotally connected to the center of the bars C by the brackets *h* *h'*. The ends of the equalizing-bar have connected to them the cords or chains I, which extend up over pulleys J, secured on the spindle *j*, journaled in the bars E, and downwardly through the car and around pulleys J', secured at the ground preferably to the side of the building and up to the bottom of the car, to which each cord I is suitably connected. It will thus be seen that the cords I are practically endless cords, the car forming practically a link of the cord. The bars E are suitably held in the wall under the eaves, being preferably supported by a brace *e*.

K is the controlling-cord, and L is a brake-wheel secured on the spindle *j*.

l is a brake-band secured to the end of the bracket L', through which the spindle J extends.

The controlling-cord K is connected to one end of the brake-band and extends down through the cage to an eye *k*, fastened to the wall near the floor.

M is a lever having an eccentric groove-shaped end *m*, such lever being pivoted in the bracket M'. The cord K passes through the bracket inside of the lever. It will now be seen by throwing the lever down, so that the longer diameter is opposite the cord K, that the cord may be gripped and the brake put on, so as to stop the car at any desired height. If it should not be desired to put on the brake, but allow of the car to run slowly, I provide in addition the grooved wheels N, which are held in suitable brackets *n*, the cord passing through the grooves of the wheels, as indicated. I also provide a grooved wheel N' on the end of a lever *n'*, such grooved wheel being located intermediately of the grooved wheels N. By pressing down upon the handle end of the lever the frictional grip upon the cord or wire may be regulated, so as to regulate the speed of the descent.

In order to provide for the firemen getting up on the roof, I provide a balcony O, located adjacent to the path of the car near the eaves,

and I also provide a ladder P, extending from such platform up on to the top of the roof.

It will of course be seen that I provide an exit-doorway in the center of the car and a side doorway in order that when the car reaches the platform O a fireman may alight on such platform, so as to get on the roof.

From this description it will be seen that I provide a very efficient fire-escape applicable to any building and of any height.

What I claim as my invention is—

1. In a fire-escape, the combination with the supporting-brackets, the spindle carried thereby, pulleys on said spindles, the car, the guides on the same and the guideways therefor, of an equalizing-bar secured to the top of said car, pulleys secured at the base of said guideways, cables secured at one end to said equalizing-bar, passing over the pulleys on said spindle and at the base of said guideways and secured at its other end to the bottom of said car, counterweights for said car, and a rope passing through said car for controlling the movement of the same, substantially as described.

2. In a fire-escape, the combination with the supporting-brackets, the spindle carried thereby, pulleys on said spindles, the car, the guides on the same and the guideways therefor, of an equalizing-bar secured to the top of said car, pulleys secured at the base of said guideways, cables secured at one end to said equalizing-bar, passing over the pulleys on said spindle and at the base of said guideways and secured at its other end to the bottom of said car, counterweights for said car,

a brake-wheel on said spindle, a brake-shoe therefor, a rope passing through said car and secured at one end to said brake-shoe and at the other end at the base of said guideways and means within said car for operating said brake, substantially as described.

3. In a fire-escape, the combination with the supporting-brackets, the spindle carried thereby, the pulleys mounted on the spindle, the car and cables for suspending said car from said pulleys, of a brake on said spindles, a rope passing through the car and having one end secured to said brake, a bracket mounted in said car and having arms extending on each side of said rope and a cam-lever carried by said arms and adapted to engage said rope, substantially as described.

4. In a fire-escape, the combination with the supporting-brackets, the spindle carried thereby, the pulleys mounted on the spindle, the car and cables for suspending said car from said pulleys, of a brake on said spindles, a rope passing through the car and having one end secured to said brake, two brackets mounted one above the other in said car and inclosing said rope, pulleys journaled in said brackets, a lever pivoted to one of said brackets, and a roller secured to one end of said lever and adapted to engage said rope and force the same against the said pulleys, substantially as described.

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Witnesses:

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