

(No Model.)

J. LARSON & A. W. HAGSTROM.

FIRE ESCAPE.

No. 300,090.

Patented June 10, 1884.

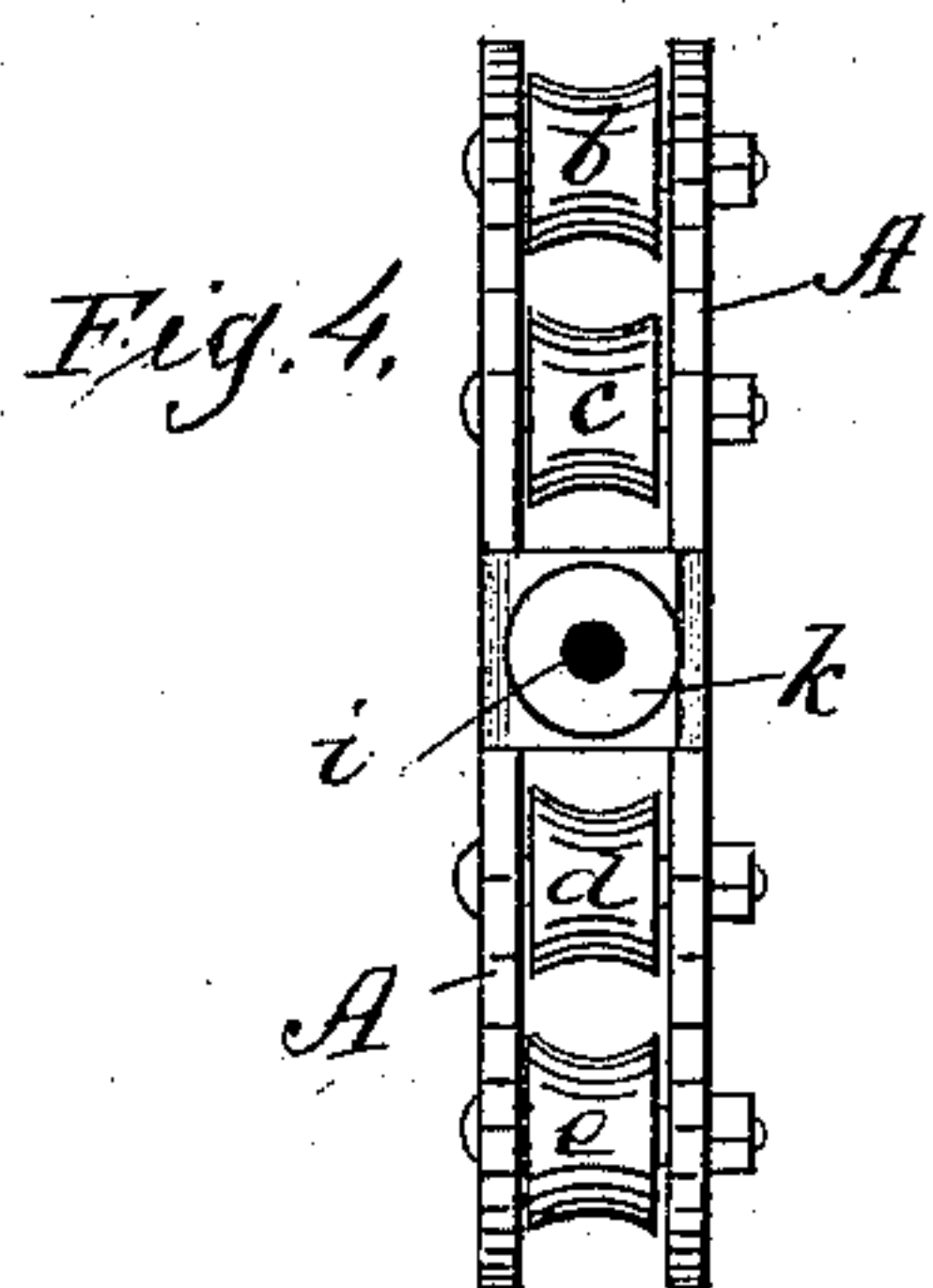
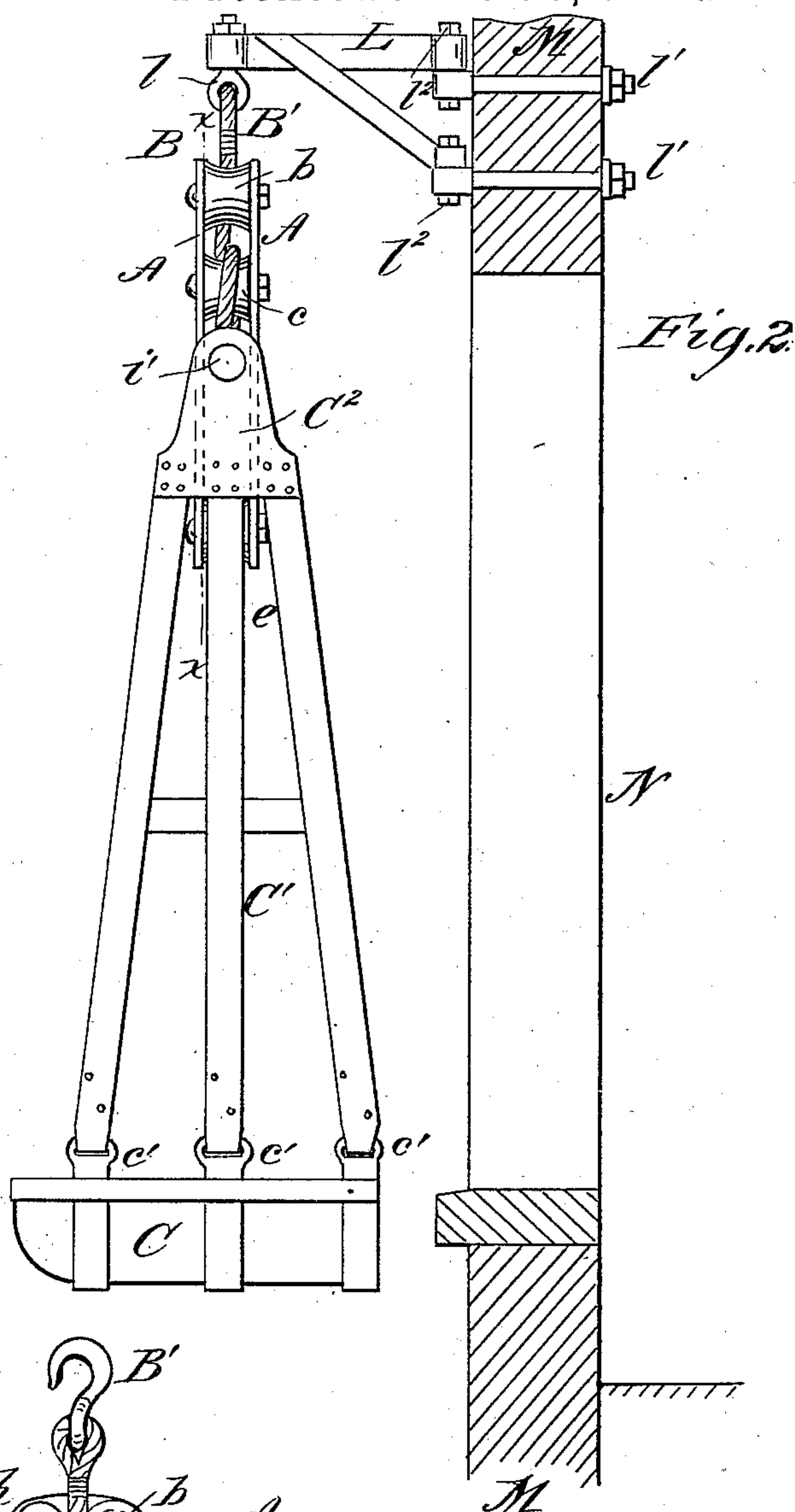
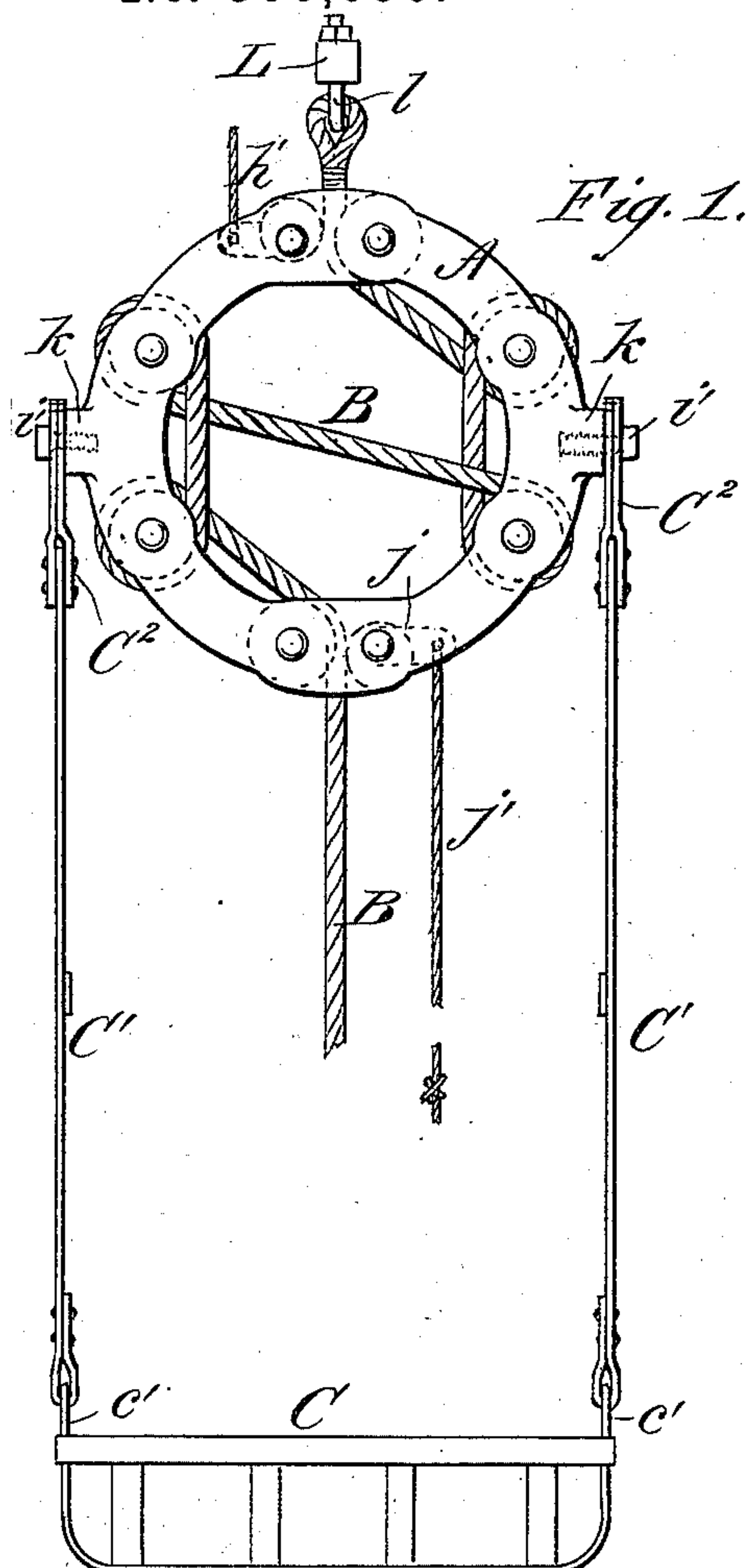
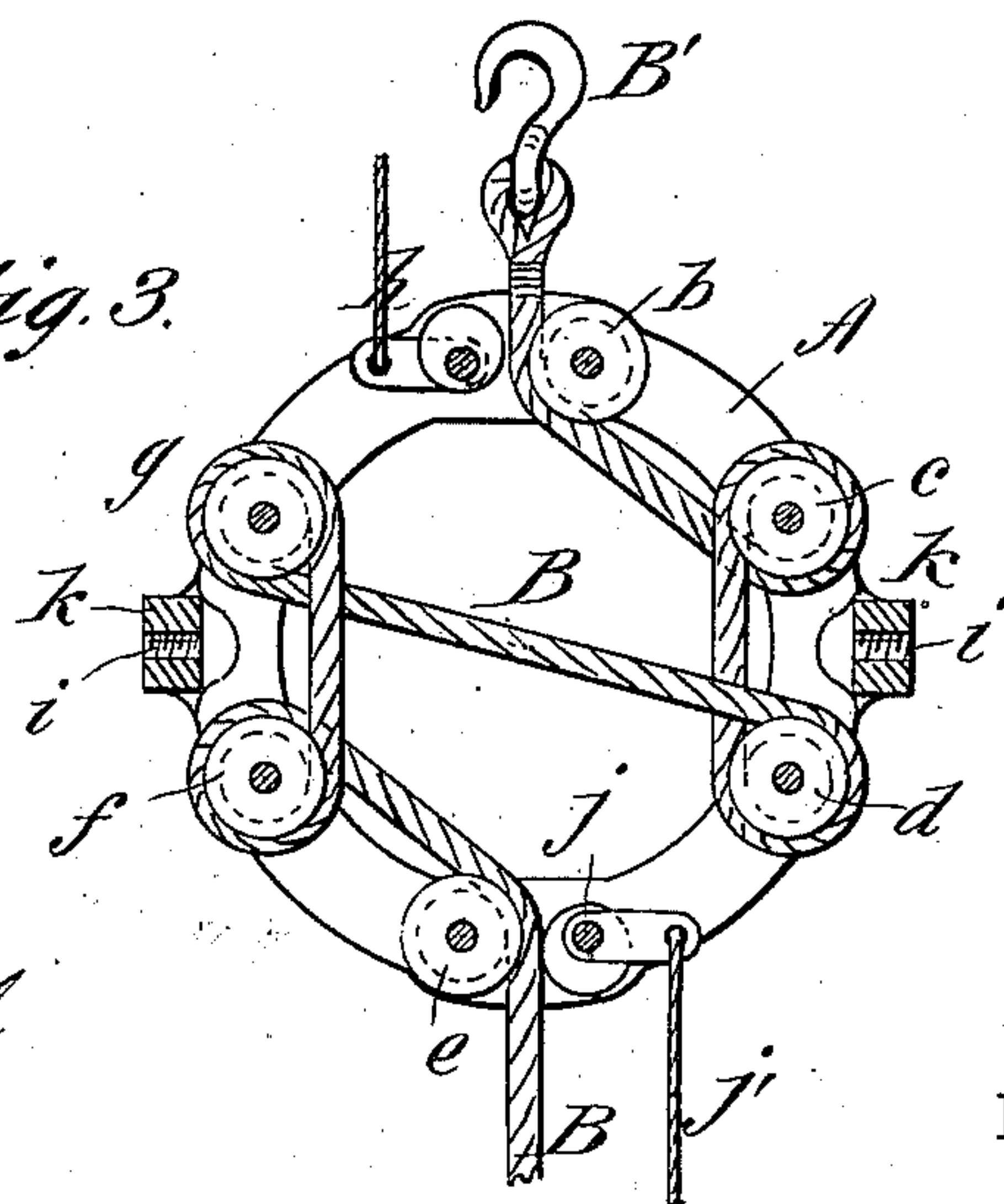


Fig. 3.



WITNESSES:

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JOHN LARSON AND AUGUST W. HAGSTROM, OF STOCKHOLM, WISCONSIN.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 300,090, dated June 10, 1884.

Application filed March 8, 1884. (No model.)

To all whom it may concern:

Be it known that we, JOHN LARSON and AUGUST W. HAGSTROM, both of Stockholm, in the county of Pepin and State of Wisconsin, have invented a new and Improved Fire-Escape, of which the following is a full, clear, and exact description.

The object of this invention is to provide a safe and practical fire-escape which shall be simple in construction, easily operated, not liable to get out of order, and which can be packed in small space, as in a traveling-bag or trunk; and the invention consists of the construction, arrangement, and combination of parts, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of our new and improved fire-escape. Fig. 2 is a side elevation of the same as it appears when attached to the bracket in position for use, and Fig. 3 is a sectional elevation taken on the line *xx* of Fig. 2. Fig. 4 is a detail showing one of the spacing-blocks.

A A represent two rings of iron, between which are journaled the grooved pulleys *b*, *c*, *d*, *e*, *f*, and *g*, over and around which the descending rope B passes, it being passed first around the pulleys *c* *d*, then around the pulleys *g* *f*, the pulleys *b* *e* serving first as guide-pulleys to the passage of the descending rope B through the escape, and, secondly, as grip-pulleys to the rope B, the pulleys acting respectively in connection with the cam-levers *h* *j* to govern the speed of descent of the fire-escape, as will be understood from Fig. 3. The circular plates A A are by preference cast of malleable iron and joined together in casting, and properly spaced by the blocks *k* *k*, which are screw-tapped, as shown at *i* *i*, to receive the screw-bolts *i'* *i'*, by which the chair or basket C of the escape is connected to the plates A A by means of the suspension-straps C' and metallic plates C².

The basket or chair C may be of band-iron, cane, willow, or of any other suitable material, and it may be of a size to carry one, two, or three or more persons. In this instance

the basket or chair C is made of band-iron, and is attached to the lower ends of the suspension-straps C' by means of the loops *c'* *c'*, as shown clearly in Fig. 2.

The upper end of the descending rope B is provided with the hook B', by which it may be attached to the eye of the bracket L, which is secured to the wall M of the building, near the window N, by the bolts *l'* *l'* and bolts *l''* *l''*, on which latter the bracket L hinges, so that it may be swung against the wall of the building when not in use.

To the outer ends of the cam-levers *h* *j* are attached the small ropes or cords *h'* *j'*, which are of about the same length as the descending rope B, and the rope *j'* reaches down through or past the chair or basket C, where it can be easily grasped by a person in the chair or basket, while the rope *h'*—when the escape is in use—is intended to be held by a person standing at the window N.

In use the escape will be attached to the bracket L by the hook B'. The person to descend will then grasp the rope *j'*, and then place himself in the chair or basket C. The rope B, passing as it does around the numerous pulleys between the rings A A, will of itself greatly retard the descent of the person; but in case the descent is too rapid the occupant of the chair, by pulling upon the cord *j'*, may cause the cam of the lever *j* to grasp the rope B with the pulley *e*, and thus govern the speed of descent with great ease.

In case there are persons present outside the building to assist the inmates of the burning building to escape, the rope *j'* may be operated by persons upon the ground or pavement; or if there are persons within the building to assist, the rope *h'* may be pulled by one of them, so as to operate the cam-lever *h* to retard a too rapid descent of the person in the chair C, so that the occupant of the chair or basket C will have nothing to do but remain quiet therein until he reaches the ground. When a second or third person is to descend, the rope B will not be drawn through the escape, but the escape will be drawn up by a person at the window, and the rope reversed end for end and attached to the bracket L, and used as before.

In this manner it will be seen that the device is very reliable and safe, and can be put in place and operated with great ease and rapidity. Besides, it is strong, durable, not liable to get out of order, and is not cumbersome.

When the escape is intended to be portable, a hook, eyebolt, or other device may be attached to the upper end of the rope B, for attaching it to the window-sill or to some object in the room, to enable the persons to escape.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The basket C, provided with loops c' c' and straps C' , secured at their lower ends to said loops and at their upper ends to the apertured plates C^2 , whereby the basket may be readily secured to the opposite sides of the

pulley-plates of the fire-escape, as shown and described.

2. The rings A A, joined together and spaced by the blocks k , which are screw-tapped, substantially as and for the purposes set forth.

3. The combination, with the rings A A, having the pulleys b , c , d , e , f , and g , and the cam-levers h j , journaled between them, of the chair C, attached to the rings A, and the rope B, passing around the pulleys c d and f g , and between the pulleys b e and cam-levers h j , the said cam-levers being provided with operating ropes or cords, substantially as and for the purposes set forth.

JOHN LARSON.

AUGUST W. HAGSTROM.

Witnesses:

CHAS. GAUNGQVIST,
C. Y. SWANSON.