(No Model.) 2 Sheets—Sheet 1.

C. E. RICE & J. E. BISCOE.

FIRE ESCAPE.

No. 539,706. Patented May 21, 1895.

Fig. 1.

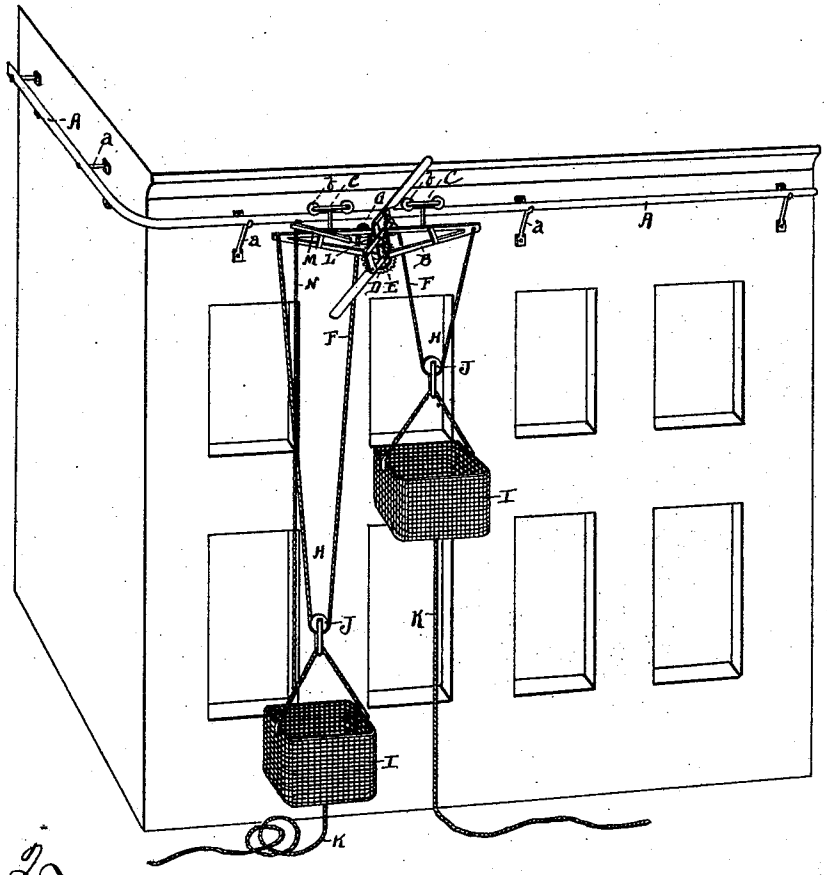
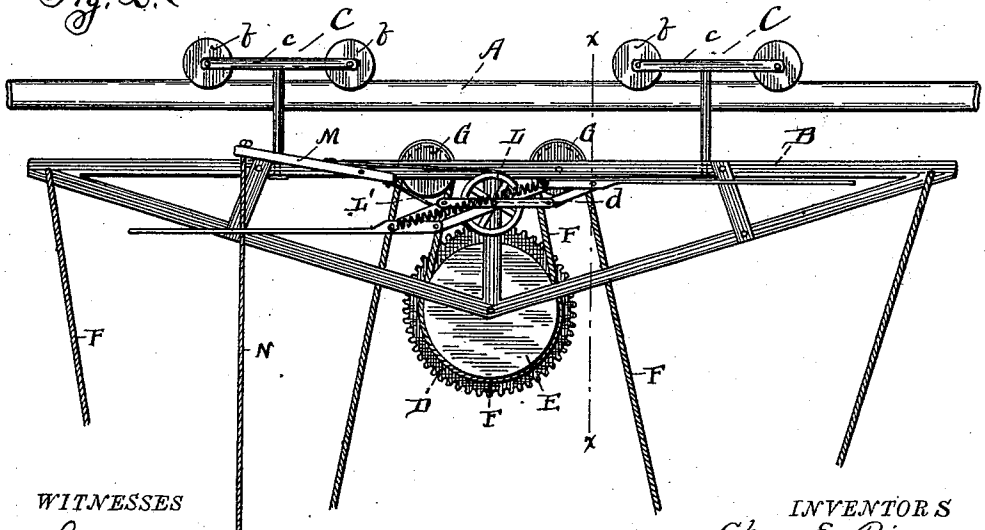


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

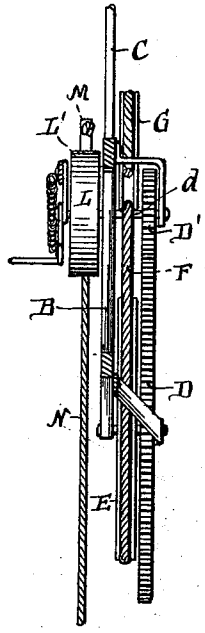
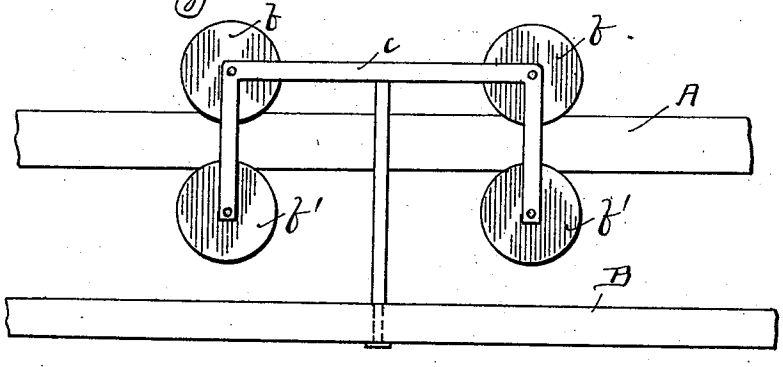


Fig. 4 C



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UNITED STATES PATENT OFFICE.

CHARLES E. RICE AND JOHN E. BISCOE, OF LITTLE ROCK, ARKANSAS.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 539,706, dated May 21, 1895.

Application filed January 31, 1894. Renewed March 28, 1895. Serial No. 543,593. (No model.)

To all whom it may concern:

Be it known that we, CHARLES E. RICE and JOHN E. BISCOE, citizens of the United States, and residents of Little Rock, in the county of Pulaski and State of Arkansas, have invented certain new and useful Improvements in Fire-Escapes; and we do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of the invention applied. Fig. 2 is a side elevation of the hanger and trucks. Fig. 3 is a section on the line *x x*, Fig. 2. Fig. 4 is a detail of a modification of truck.

This invention has relation to certain new and useful improvements in fire escapes, and is designed to provide a simple, practical, convenient, and efficient means of escape from burning buildings; and the invention consists in the novel construction and combination of parts, all as hereinafter described and pointed out in the claims.

Referring to the accompanying drawings, the letter A designates a track which in practice is designed to be supported near the cornice of a building and parallel therewith by means of suitable brackets *a*. Said track bar is designed to form a support for a car or hanger B, suspended therefrom by means of double trucks C, C, having grooved wheels or pulleys *b*, which travel said track. These trucks comprise each a swiveled arm having at its upper end an arm *c* at right angles thereto, and carrying two of the grooved wheels or pulleys *b*. Journaled on the frame bar of said car or hanger at about the central portion thereof is a toothed wheel D, which gears with a pinion D′ carried by a short shaft *d*, journaled in bearings on said bar. Rigidly secured to said toothed wheel D is a large grooved pulley E, around which passes a rope or cable F, which also passes up at each side and over a pulley G, journaled one at each side of and above the wheel E. After passing over the said pulley each branch of the rope or cable forms a loop H, the ends being made fast to the end portions of the frame.

I, I, designate baskets, cages, or carriers, of suitable construction, and carried one by each loop H, which runs through a pulley J on the basket, cage, or carrier, and suspends it. Attached to each basket is a trailing rope or chain K.

On the shaft *d* is a fan or other governor, which serves to check or retard the descent of the baskets, and this may be further controlled by means of a friction brake, comprising a wheel L on the shaft *d*, a friction strap L′ engaging the periphery of said wheel, and a lever M to which the ends of said strap are secured at opposite sides of its fulcrum. The lever may be operated by means of a rope, chain or cable $H^{\times}$, attached thereto. The fan consists of a pair of fan blades whose shanks are connected by a series of links or levers arranged after the manner of lazy tongs of which the shaft *d* forms the central pivot. As the shaft rotates, the tendency of said blades to extend is in part counteracted by springs connecting said links and blades. It will be seen, therefore, that the faster the shaft *d* rotates, the more will the tension of the springs be overcome, and the greater will be the sweep of the blades, increasing their resistance, and causing a retarding influence upon said shaft.

The manner in which the baskets are suspended by the loops H prevents their turning or twisting in ascending or descending, as is the case where they are attached to the free ends of the rope or cable, and renders their movement much more sure and easy.

The trailing chains or cables afford means for operating the baskets, and for moving the hanger along the track to the desired point.

It will be observed that by swiveling the trucks in the manner shown and described, the carriage may be readily run around an angle of the track. The trucks therefore should be placed as near each other as is practicable, and the track set out from the building. To prevent the tendency of the trucks to leave the track in turning an angle, if they are placed too near each other, said trucks may be provided with grooved wheels running on the under side of the track, as shown in Fig. 4. For very heavy carriages, the frame bars may be hinge-jointed, in any suitable manner.

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

In a fire escape, the combination with a swiveled truck, having a series of grooved pulleys at its central portion, a rotary shaft which carries one of said pulleys, an automatically extensible fan governor carried by said shaft, a rope passing over said pulleys and made fast at its ends to the respective end portions of the said truck, and baskets or carriages suspended from loops in said rope upon each side of said central pulleys, the descent of said baskets or carriages being regulated by the action of said fan, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES E. RICE.
J. E. BISCOE.

Witnesses:
H. D. PARKER,
G. C. WATKINS.