W. J. NUNN.
Fire-Escape.

No. 199,461. Patented Jan. 22, 1878.

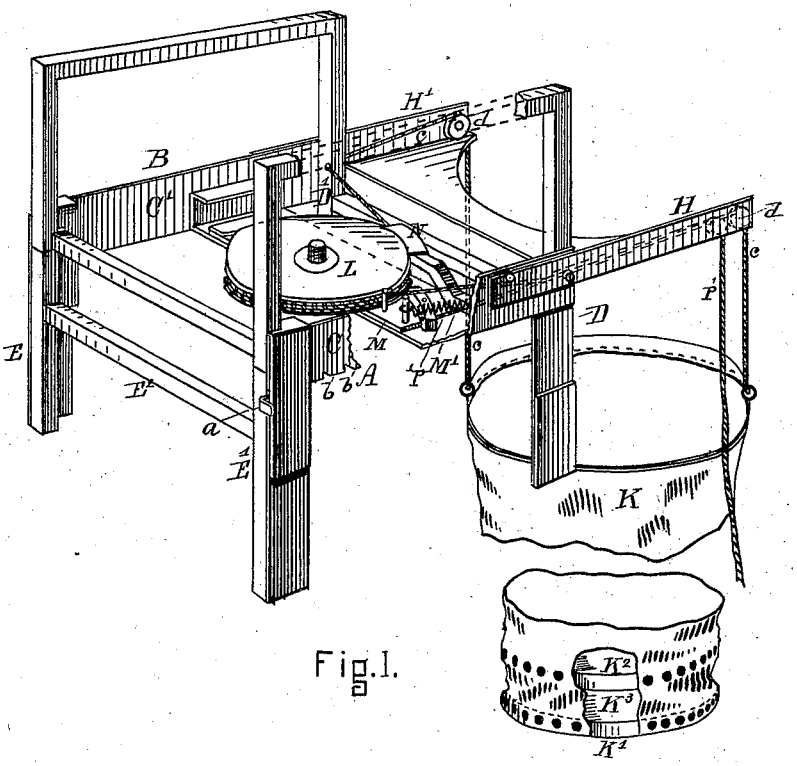

Fig. 1.

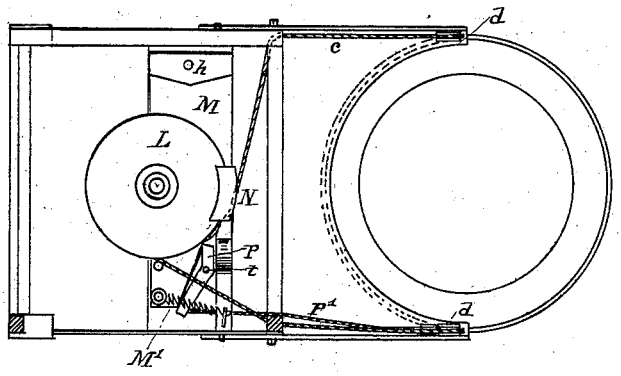

Fig. 2

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WILLIAM J. NUNN, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **199,461**, dated January 22, 1878; application filed May 31, 1877.

To all whom it may concern:

Be it known that I, WILLIAM J. NUNN, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Combined Chair and Fire-Escape, of which the following is a specification:

My invention relates to a fire-escape which, when not in use, is within and combined with a chair; and consists in a spring-reel within the chair, said reel being provided with a self-acting brake; also, in the arrangement of a car which is in the back of the chair, and which is provided with wire ropes or chains and with a bellows-bottom, the object being to make a fire-escape which, when not in use as such, may form a convenient piece of furniture, which may be readily converted into a fire-escape.

Referring to the accompanying drawings, Figure 1 is a perspective view of my invention, the back of the chair being let down ready for use as a fire-escape. Fig. 2 is a plan of the same.

Let A B represent the body of the chair. The sides C C′ are made rigid to the rear legs D D′, while the front legs E E¹, connected to each other by the bar E², are so connected to the sides C C′ that they may slide freely toward the rear legs. A pawl, *a*, in the casing of the leg E¹ engages with the notches *b b b* in the side piece C, and thus holds the legs E E¹ in any desired position in relation to the rear legs.

The object of this part of the invention is to allow the chair to be fastened to a window, the rear legs being placed outside the window, while the front legs may be pushed back to meet the required thickness of the window stool and wall, and thus hold the chair, which now becomes the frame for supporting the fire-escape. The back H H′ of the chair, being turned down, forms a projecting frame, in which sheaves *d d* are placed, and over which the ropes *c c*, that hold the car K, run. These standards H H′, which form the back of the chair, and the projecting frame may be suitably braced or stayed, either to the rear legs D D′ or the arms of the chair.

The car K consists of a cloth or canvas bag having two disks, K¹ K², one of which, K¹, forms the bottom, while the disk K² is placed a few inches above it, so as to form an air-tight compartment, K³. This disk K² has a small perforation in it, so that when the car strikes the ground the air in the compartment K³ may slowly escape and allow the thing to collapse, and thus prevent a jar to the person in the car.

L is a wheel, made hollow to contain a coiled spring, and also made with a groove around it, in which the car-ropes *c c* are wound. The spring (not shown in the drawing) in the wheel L serves to wind up the ropes when the car has run down, and thus return the car to the place of starting, ready for another passenger. If desirable, the wheel L may be provided with gears, and connected to one or more gear-wheels, which may be operated by a coiled spring.

The wheel L is hung on a swinging lever, M, which is pivoted at *h*, and held by a spring, M′, at the other end, so that the wheel L is kept close up to, and in contact with, the fixed brake N.

The wheel L is hung on the swinging lever M, for the purpose of allowing the weight in the car K to act, through the ropes *c c*, upon the wheel, and force it against the fixed brake N, thus checking it. The force with which the wheel L is brought against the brake will be in proportion to the weight in the car.

P is a small lever, pivoted at *t*, and provided with a cord, P′, which serves to move the lever, and as the end S of the lever rests against the swinging lever M, that the wheel L is hung to, which action will throw the wheel L free from the brake N and allow it to revolve. Thus the lever P and the cord P′ gives the user complete control of the letting down of the car.

In the drawing I have omitted the upholstery, as it forms no part of the invention, and may be done in any desired style.

Having now described the construction and operation of my invention, what I desire to secure by Letters Patent is as follows:

1. The combination of the wheel L in the body of the chair A B with the ropes *c c*, sheaves *d d*, the hinged back H H′ of the

chair, and the legs D D′, all operating together substantially as described, and for the purpose set forth.

2. The combination of the spring reel-wheel L, the ropes *c c*, the fixed brake N, and the lever P, substantially as described, and for the purpose set forth.

3. The falling car K, provided with the disks K^1 K^2 and air-compartment K^3, arranged to operate substantially as described, and for the purpose set forth.

WILLIAM J. NUNN.

Witnesses:
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