(No Model.)

S. A. ANDERSON.

FIRE ESCAPE.

No. 356,436. Patented Jan. 25, 1887.

Fig. 1.

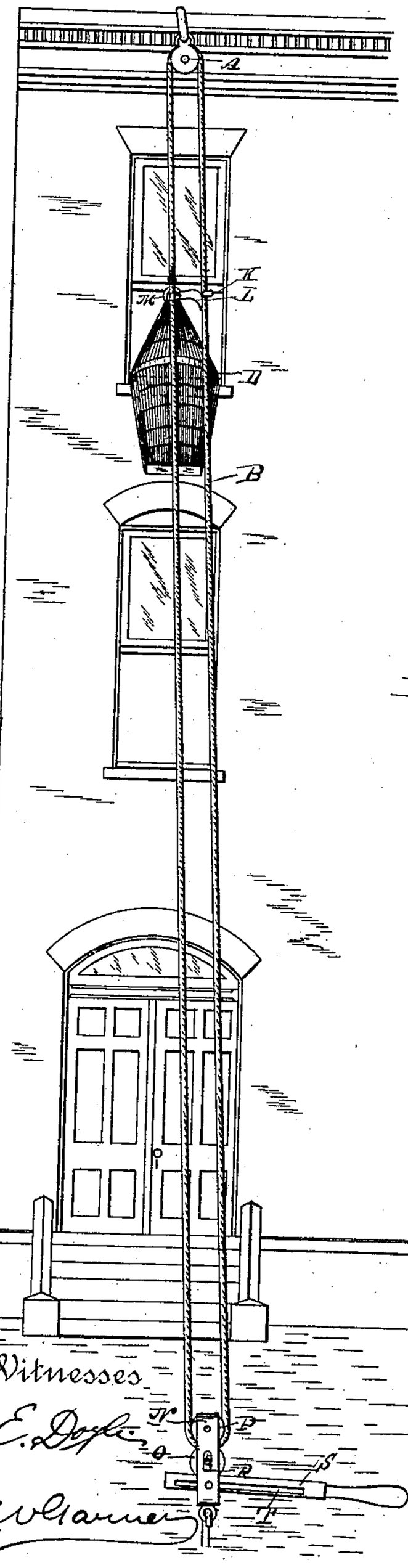


Fig. 2.

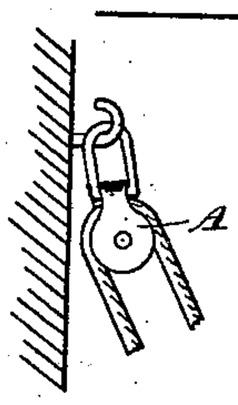
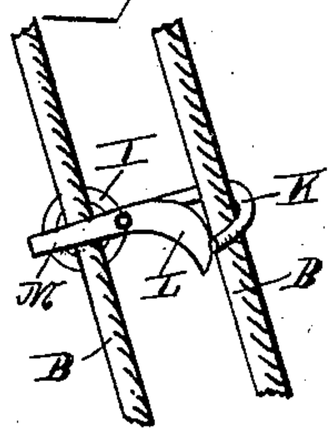
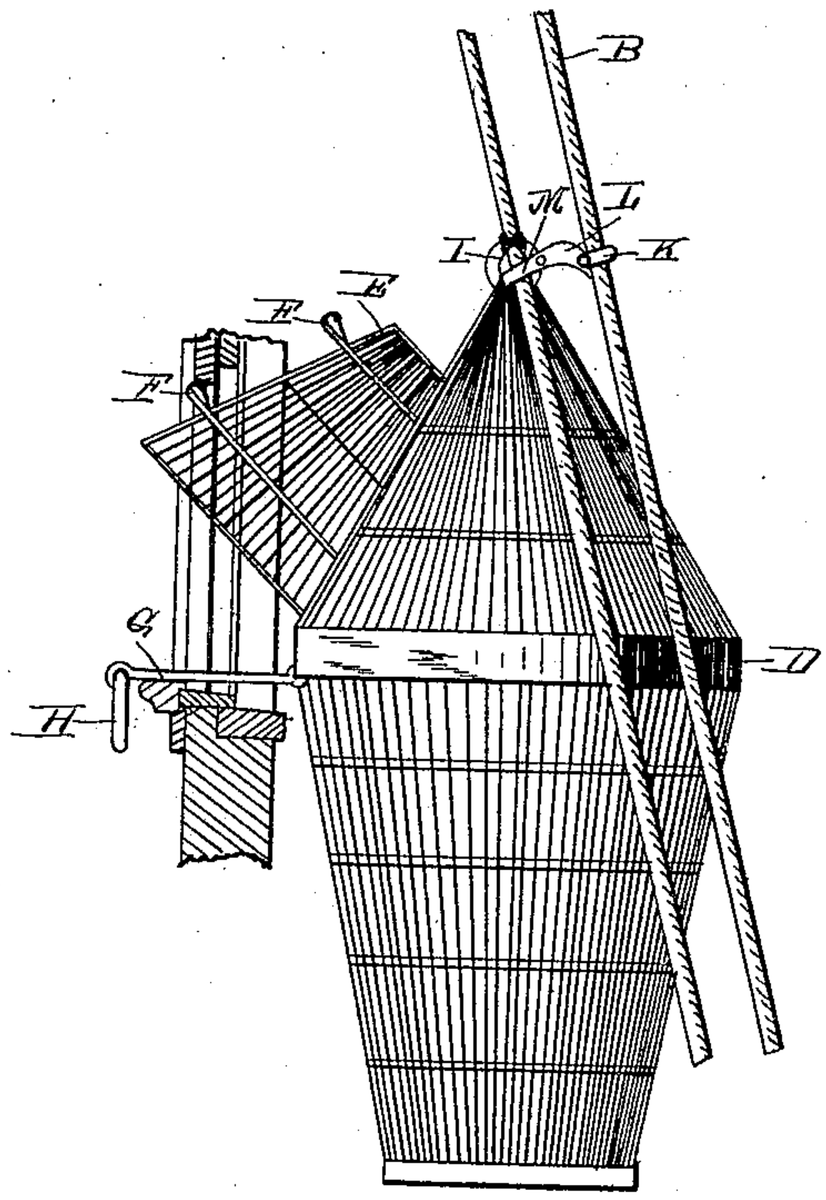
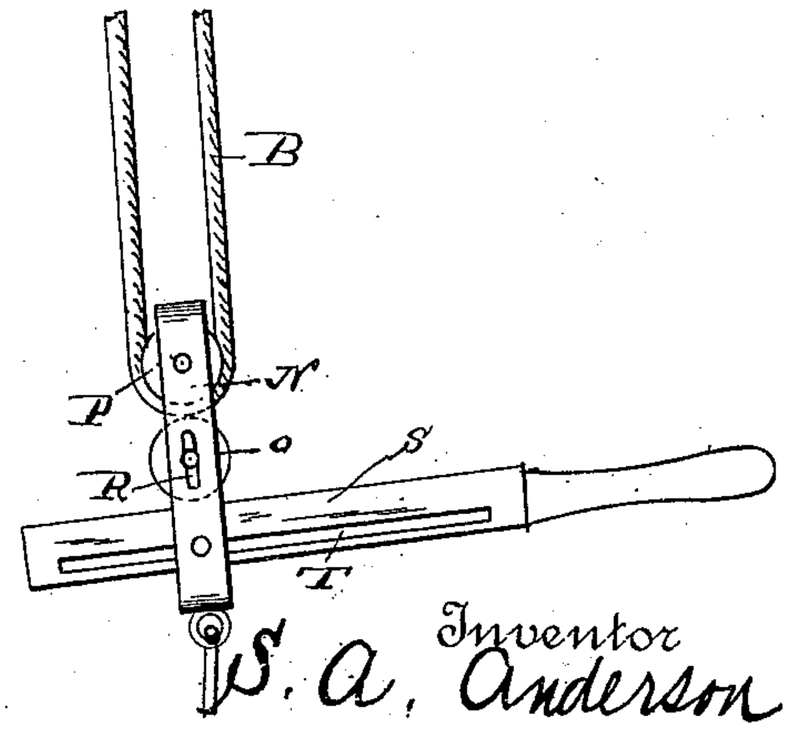


Fig. 3.







Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL A. ANDERSON, OF OLEAN, NEW YORK.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 356,436, dated January 25, 1887.

Application filed October 18, 1886. Serial No. 216,552. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL A. ANDERSON, a citizen of the United States, residing at Olean, in the county of Cattaraugus and State of New York, have invented a new and useful Improvement in Fire-Escapes, of which the following is a specification.

My invention relates to an improvement in fire-escapes; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a fire-escape embodying my improvements, showing the manner of using the same. Fig. 2 is a detailed elevation of the same. Fig. 3 is a detailed elevation, enlarged, showing the connection of the basket to the ropes.

A represents a pulley, which is attached to a hook at the top of the building from which escape is to be effected, and B represents an endless elevating rope or chain which passes over the said pulley. To the said rope is attached a car or basket, which is preferably made of metallic woven wire, and has a hoop or band, D, which is made of steel, and is employed to distend the central portion of the basket or car. The bottom of the latter is made of wood or other suitable material. The upper portion of the basket or car, above the hoop, is provided with a hinged door, E, having spring-hooks F, which are adapted to secure the door when closed, and thus prevent persons in the car from falling out of the same. From one side of the hoop D extend pivoted arms G, which are provided at their outer ends with rings or hooks H.

The ring I, which serves to attach the upper end of the car or basket to one side of the endless rope, is provided with a hook, K, which is adapted to engage the other side of the endless rope, and to the said hook is pivoted a cam-lever, L, having the lever-arm M. This cam-lever bears against the endless rope, and by pulling downwardly upon the lever-arm M sufficient friction may be generated between the hook and cam and the rope to cause the car or basket to be lowered at any desired rate of speed.

The lower end of the endless rope passes through a block, N, which is secured to the ground in any suitable manner and at a suitable distance from the burning building. The said block N is provided with pulleys O and P, between which the endless rope passes. The bolt or shaft on which the pulley O is journaled passes through slots R, that are made in the sides of the block, so that the said pulley O is movable toward or from the pulley P.

S represents a brake-lever, which is pivoted between the sides of the block N and bears against the lower side of the pulley O. This brake-lever has a guideway or slot, T, which works on the fulcrum of the lever, so that the said lever is movable lengthwise on its fulcrum, and may be thus adjusted to give any desired power, and thereby cause as much friction on the pulley O as may be necessary. The function of this block, having the friction-pulleys O and P and the brake-lever to force the said pulleys against the rope, is to enable the descent of the car or basket to be regulated by persons on the ground.

The car is elevated by a person standing on the ground (after the pulley A has been suspended from the hook on the building) to the level of the window from which escape is to be made, and the person in the building attaches the said car or basket to the window-sill by means of the arms G and the rings or hooks H, so as to steady the car or basket while it is being loaded. The rings or hooks are then cast off from the window-sill, the door is closed, and a person in the car grasps the lever M of the cam L and regulates the descent of the car at will. In order to grasp the lever M, the person in the car thrusts his hand between two of the wires of which the car is woven; or, if the car be made of some rigid material, a suitable opening must be made in its upper side for this purpose; or a cord may be attached to the lever M and depend therefrom into the car, to enable a person therein to apply the cam-lever to the rope. In case the car is very heavily loaded, a person standing on the ground will bear upon the lever T, so as to cause the same to force the pulleys O and P together against opposite sides of the end-

less rope, and thus assist in checking the descent of the car.

I do not wish to be limited to the use of one basket or car, as the number may be increased, as desired.

Having thus described my invention, I claim—

1. In a fire-escape, the combination of the elevating-rope, the pulley A, over which it passes, and car attached to one side of the rope and having the hook to engage the other side of the rope, and the cam-lever pivoted to the said hook to exert frictional contact on the rope, and thus check the descent of the car, substantially as described.

2. The combination, in a fire-escape, of the endless elevating-rope, the car or basket attached thereto, the block N, through which the rope passes, having the pulleys O and P, to bear against opposite sides of the rope, one of the said pulleys being movable, and the brake-lever to bear against the movable pulley, for the purpose set forth, substantially as described.

3. In a fire-escape, the brake or elevating rope comprising the block N, having the slots R in its sides, the pulley P, journaled in the said block, the pulley O, having its shaft or axle journaled in the slots, whereby the said pulley O is movable toward and from the pulley P, and the brake-lever S, to bear against the movable pulley, substantially as described.

4. The combination, in a brake for fire-escapes, of the block N, having the movable pulley O, to bear against the elevating-rope, and the lever S, having the slot or guideway T, working on the fulcrum of the said lever, whereby the latter is adjustable and adapted to give any desired leverage when pressed against the sliding pulley, substantially as described.

5. In combination with the elevating-rope, the basket or car thereon attached to one side of the rope, a hook or an equivalent connecting with the basket or car and engaging the other side of the rope, and a brake device to bear against the rope, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

SAMUEL A. ANDERSON.

Witnesses:

FREDERICK W. KRUSE,

LEMUEL PATTERSON.