

No. 677,041.

Patented June 25, 1901

W. NASH.
FIRE ESCAPE.

(Application filed Nov. 15, 1900.)

(No Model.)

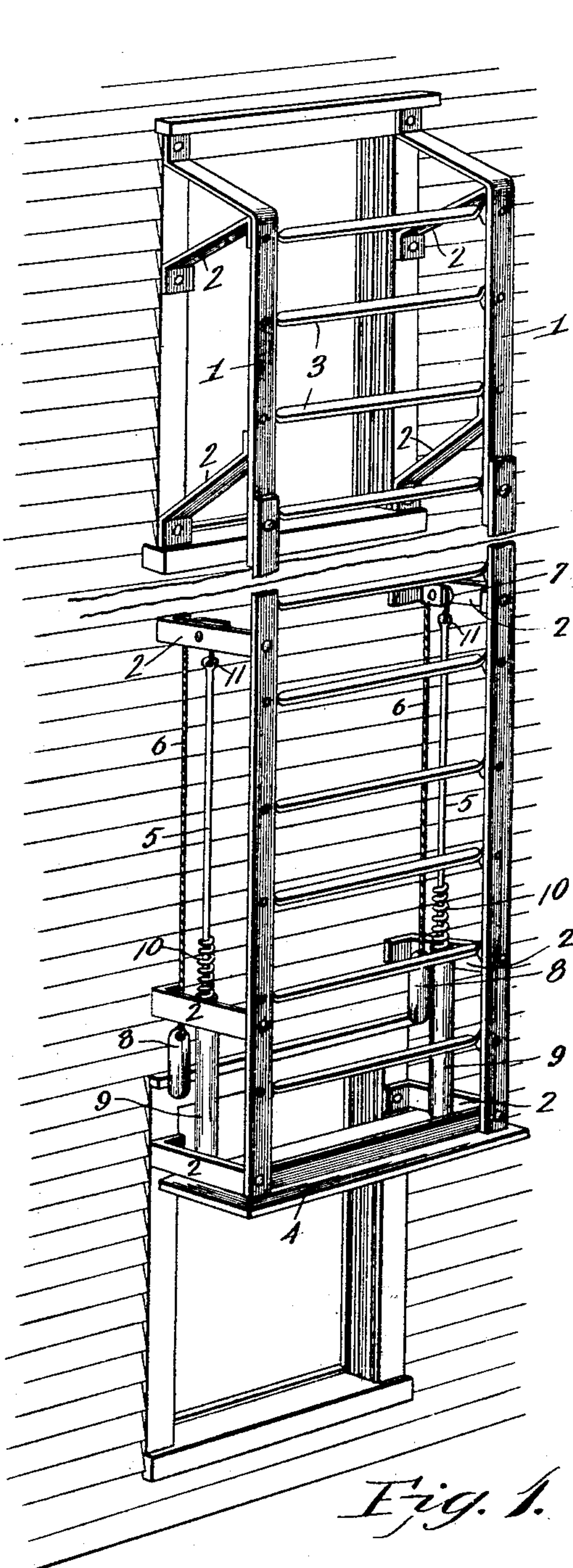


Fig. 1.

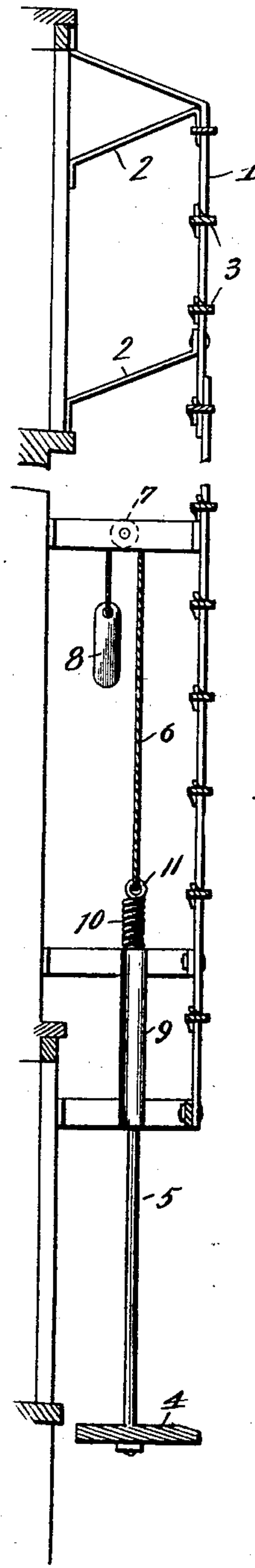


Fig. 2.

Witnesses

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 677,041, dated June 25, 1901.

Application filed November 15, 1900. Serial No. 36,638. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM NASH, a citizen of the United States, residing at Towlesville, in the county of Steuben and State of New York, have invented a new and useful Fire-Escape, of which the following is a specification.

This invention relates to fire-escapes, and has for one object to provide an improved device of this character which is permanently secured to a building, so as to be in convenient position for access from windows and other exits. It is furthermore designed to have the lowermost section of the device elevated a sufficient distance above the ground, so as to prevent unauthorized persons from gaining admission to the building by way of the fire-escape and at the same time to provide for the convenient raising and lowering of said lower section, so as to permit of the occupants of the building making a safe and expeditious exit therefrom.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a fire-escape constructed and arranged in accordance with the present invention. Fig. 2 is a longitudinal sectional view thereof.

Like characters of reference designate corresponding parts in both figures of the drawings.

Referring to the drawings, wherein has been shown a portion of the wall of a building having windows arranged in vertical alinement, 1 designates the side rails of a permanent ladder, which are connected to the outer side of the wall by means of suitable brackets or braces 2, so as to permanently mount the ladder at a suitable distance outwardly from the wall, so as to be conveniently accessible from the several windows across which the ladder extends. The side rails are made of metal and have flat rungs or steps 3, also of metal,

so as to be fireproof. It will of course be understood that the device is designed to be applied to buildings of any height and that the ladder extends from the roof of the building downwardly across all of the windows in the same vertical alinement and terminates at about the top of the lowermost window, as shown in the drawings, so that the ladder is not accessible from the ground, and therefore does not present a means for gaining access to the building.

In order that the descent from the lowermost portion of the fixed section of the ladder may be quickly and safely accomplished, there is provided an elevating device comprising a seat or platform 4, having the rods 5 rising from opposite ends thereof. To the upper end of each rod there is connected a cable 6, which is reeved through a guide or pulley 7, mounted upon one of the brackets of the ladder and located a suitable distance above the lowermost window. To the free end of each of the cables there is connected a counterbalancing-weight 8, whereby the platform is normally held in an elevated position against the lower end of the ladder. The rods are located at the inner sides of the ladder-brackets and slide through tubular guides 9, secured to the lower brackets. An expansible helical spring 10 embraces each rod and is supported upon the upper end of the adjacent tubular guide, and the upper end of each rod is provided with a laterally-enlarged head or shoulder, preferably provided by means of a ring or eye 11, to which the cable is connected, and which is designed to strike the spring at the lower limit of the movement of the platform, and thereby cushion the fall thereof.

From the foregoing description it will be apparent that the gravity-operated elevator is normally held in an elevated position, so that in escaping from the building it is merely necessary to descend by means of the ladder to the platform 4, and the additional weight applied thereto will overcome the counterbalancing-weights, and thereby cause the elevator to descend to its lowermost limit, which is adjacent to the ground, so that the escaping persons may conveniently step from the platform, which is then automatically returned for another descent through the medium of the counterbalancing-weights. It

will now be apparent that the springs prevent a sudden and dangerous jar when the platform reaches its lowermost limit.

It will be understood that the ladder is disposed outwardly from the wall of the building at such a distance as will be convenient for access from the respective windows, and also to permit of descending at the inner side of the ladder, whereby the escaping parties are not exposed to falling objects, although the outer side of the ladder may be used, if desired. Moreover, the platform is located at the inner side of the ladder, so that it is in a convenient position to be stepped upon from the inner side of the ladder.

What is claimed is—

1. In a fire-escape, the combination with a permanent ladder, of a vertically-movable gravity-actuated lower section, a suspending-cable therefor having its intermediate portion loosely supported upon the permanent ladder, one end of the cable being connected to the movable section, and a counterbalancing-weight connected to the opposite end of the cable.

2. In a fire-escape, the combination with a permanent ladder, of a normally-elevated vertically-movable gravity-actuated lower section, a vertically-movable suspending device mounted upon the permanent ladder,

and having a counterbalancing-weight, a guide for the suspending device, a coiled spring embracing said suspending device and supported upon the guide, and a spring-engaging stop-shoulder upon the suspending device.

3. In a fire-escape, the combination with a permanent ladder, of a normally-elevated vertically-movable gravity-actuated lower section, comprising a platform, opposite suspending-rods rising therefrom, opposite guides carried by the permanent ladder and slidably receiving the respective rods, the latter projecting above the guides, cushioning-springs embracing the respective rods and supported upon the tops of the guides, opposite pulleys mounted upon the permanent ladder and above the rods, cables reeved through the respective pulleys and connected to the adjacent rods, counterbalancing-weights connected to the lower ends of the cables, and spring-engaging stop-shoulders carried by the rods.

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

WILLIAM NASH.

Witnesses:

ROBT. ROBINSON,
ELLIOTT SMITH.