(No Model.)

LAFAYETTE SAWTELL.

FIRE ESCAPE.

No. 287,058. Patented Oct. 23, 1883.

Fig. 1.

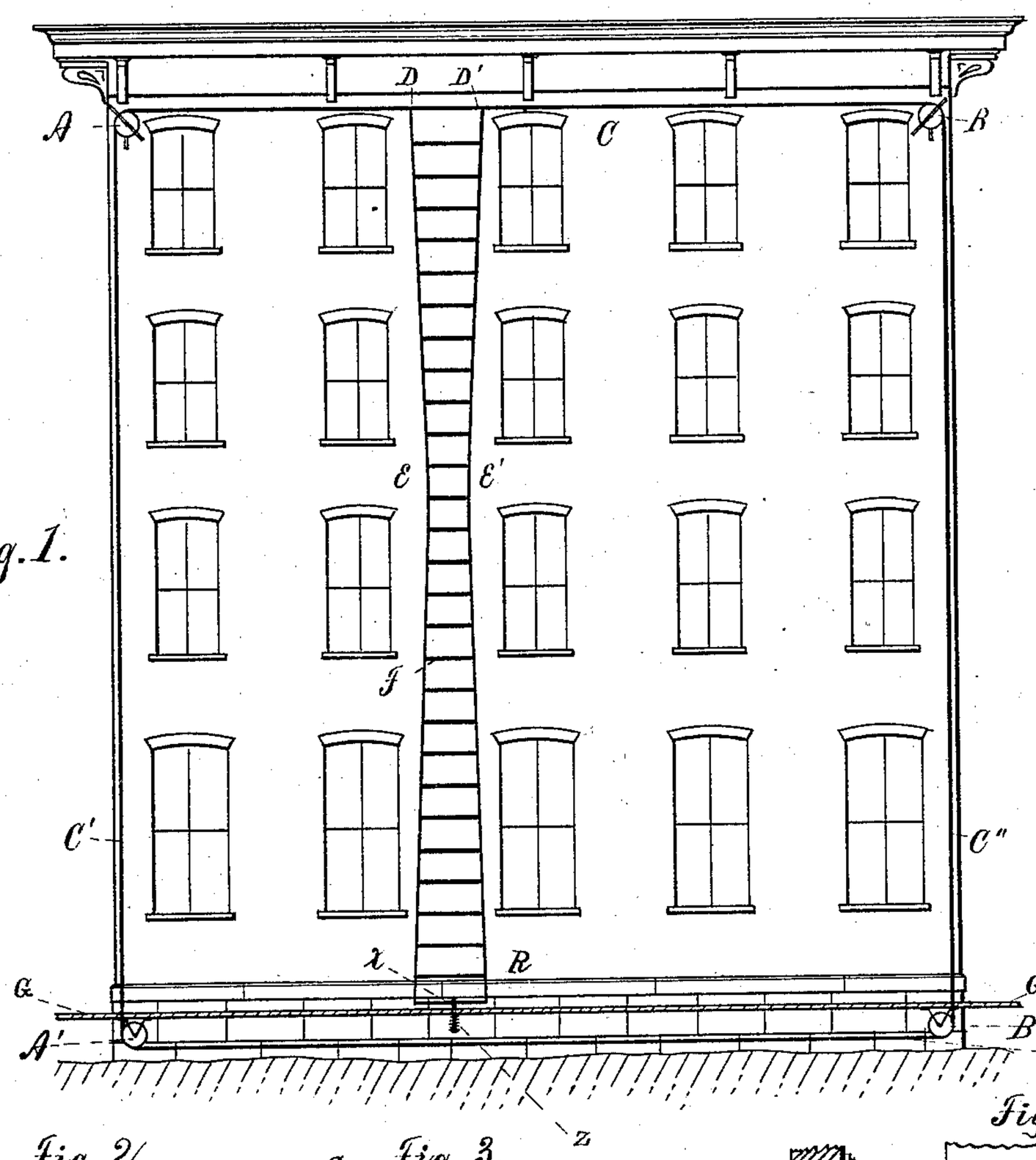


Fig. 2.

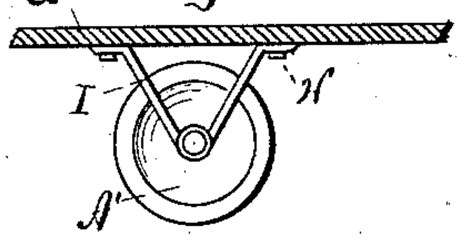


Fig. 3.

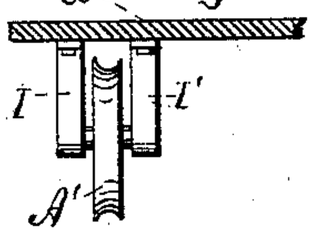


Fig. 4.

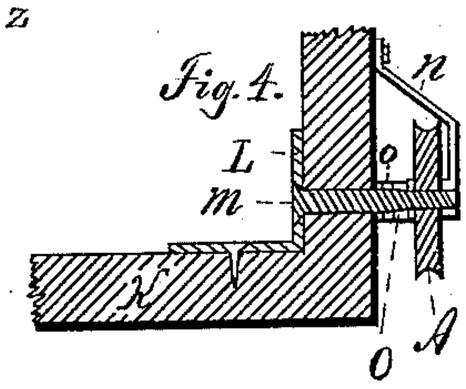


Fig. 5.

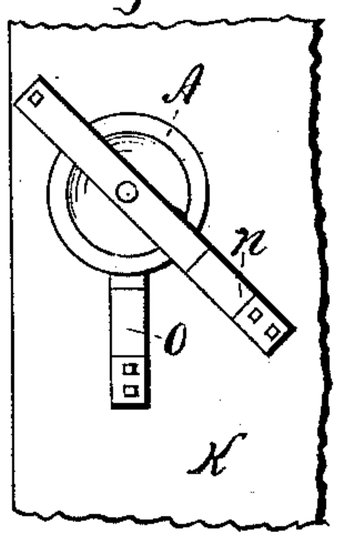


Fig. 6.

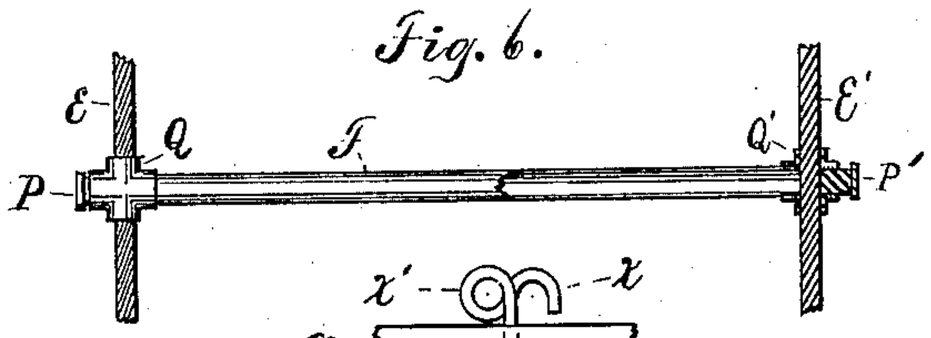
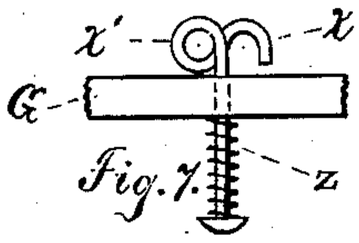


Fig. 7.



WITNESSES:

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LA FAYETTE SAWTELL, OF LENA, ASSIGNOR OF THREE-FOURTHS TO ALLEN P. JOHNSON AND WILSON SAWTELL, BOTH OF MORSEVILLE, ILLINOIS.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 287,058, dated October 23, 1883.

Application filed February 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, LA FAYETTE SAWTELL, a resident of Lena, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Fire-Escapes; and I do hereby 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 pertains to make and use the same.

My invention is an improved fire-escape whose construction is fully explained in the following specifiation and shown in the accompanying drawings, in which—

Figure 1 is a front elevation of a building with fire-escape attached; Fig. 2, an enlarged front elevation of pulley A′ under sidewalk and its hanger; Fig. 3, a side elevation of same; Fig. 4, a horizontal section of pulley A, with supporting-braces and wall to which same are attached; Fig. 5, a front elevation of same; Fig. 6, an elevation showing details of construction of ladder, one end being in section; and Fig. 7, a side elevation of hook *x* for staying bottom of ladder.

In these drawings, C C′ C″ C‴ is an endless wire cable stretched tightly about four pulleys, A A′ B B′, which are journaled to the face of a building at the four corners thereof. A flexible ladder having sides E E′ of wire rope and rounds F of gas-pipe is hung from the upper side, C, of the rectangle formed by the endless cable, and the drawing of the endless cable up or down at either of the sides C′ C″ moves the ladder across the face of the building. The pulleys A B at the upper corners of the building are each held in place by the device shown in Figs. 4 and 5, in which L is an angle-plate secured to the inner corner of the walls of the building; *m*, a rod passing through the wall, and provided with a cone-head sunk in a countersink in the angle-plate; *o*, a nut screwed on the rod outside the wall; O, a vertical brace immediately outside the nut; A, the pulley, and *n* a diagonal brace outside the pulley and bolted to the wall at both ends. The rod *m* is smaller outside the threaded portion on which the nut *o* is screwed, in order that the nut may be readily slipped on until it reaches the threaded portion, and also for the purpose of leaving a smooth bearing-surface outside the nut. The pulleys A′ B′ are secured under the sidewalk by hangers I I′, Figs. 2 and 3, bolted to the planking of the sidewalk.

The ladder consists of two wire ropes, E E′, and a series of rounds, F, of gas-pipe. The rounds are attached by means of a series of coupling-joints, Q Q′, through the vertical stem of which the cable passes, while the round is screwed into the inner horizontal branch, and a plug, P P′, is screwed into the outer branch and holds the coupling in position on the cable acting as a set-screw. Along the sidewalk, and immediately over the cable C‴, are placed a series of hooks, *x*, (only one of which is shown,) provided with a shank which extends down through the planking for a considerable distance and terminates in a head. Between the planking and the head is a spiral spring, *z*, which forces the hook downward, and a ring, *x′*, attached to the hook, serves to raise it for hooking it over the bottom round of the ladder. I intend to place one of these hooks under each window, in order that the ladder may be stayed at the bottom when in use at any part of the front of the building. The ladder is widest at the ends and narrows regularly from each end to the center. The object of this construction is to decrease the diameter of the roll formed in coiling the ladder about a shaft. No winding device is shown; but a windlass and cord of any ordinary form may be attached to the main cable C, and will serve to reel up the ladder.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of an endless cable stretched about four pulleys attached to the face of a building at the respective corners thereof, and a ladder attached to and depending from said cable between the two pulleys at the upper corners of said face, whereby the motion of the cable about said pulleys moves the ladder from side to side across the face of the building.

2. In a fire-escape, an endless cable stretched about four pulleys in the same vertical plane, two of said pulleys being attached to the wall of the building at its upper corners and the other two secured by suitable hangers to the under side of the planking of the sidewalk,

whereby the lower side of the rectangle formed by said cable is concealed from view, substantially as shown and described, and for the purpose set forth.

3. The device for attaching the pulleys to the wall of the building, being the combination of the plate L, rod *m*, nut *o*, vertical brace O inside the pulley, and diagonal brace *n* outside the pulley, all constructed substantially as shown and described.

4. In a fire-escape, a ladder having sides of flexible material and rounds of rigid material, said rounds being longest at the ends of the ladder and shortening regularly from both ends to the middle, substantially as described, and for the purpose set forth.

5. The combination, with the sidewalk of a building, of the hook *x*, ring *x'*, and spring *z*, all constructed and operating substantially as described, and for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

LA FAYETTE SAWTELL.

Witnesses:
R. H. WILES,
O. TAYLOR.