S. M. LYLE.

FIRE ESCAPE.

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1,397,643. **Patented Nov. 22, 1921.**

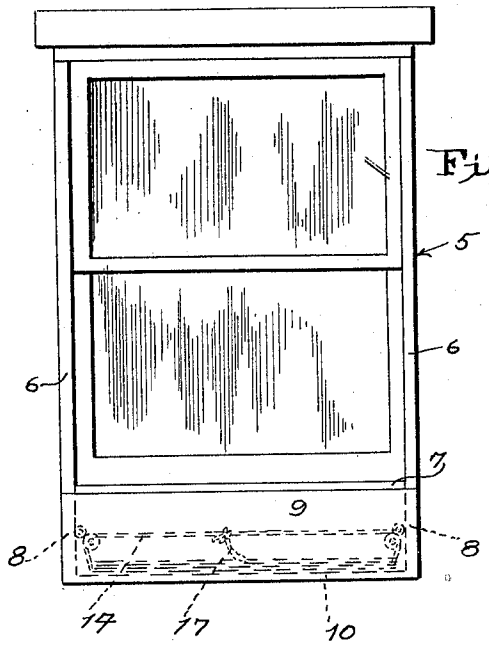


Fig. 1.

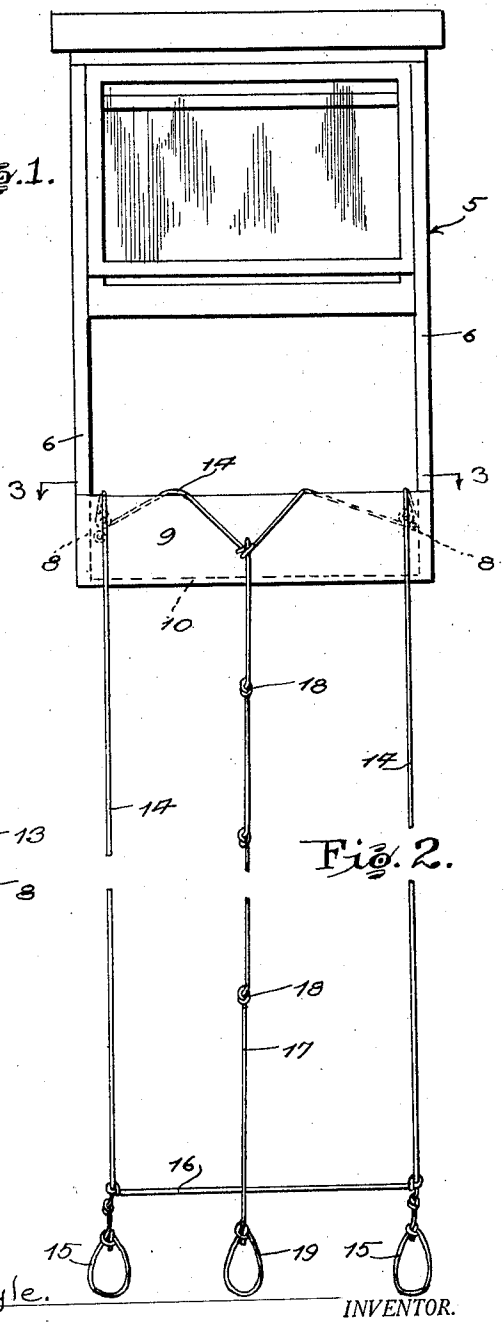
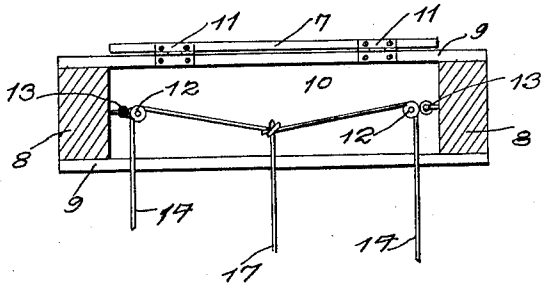


Fig. 2.

Fig. 3.



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FIRE-ESCAPE.

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To all whom it may concern:

Be it known that I, SARAH M. LYLE, a citizen of the United States, residing at Bridgeport, in the county of Belmont and State of Ohio, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to fire escapes and has for its object to provide a device of this character capable of being stored within the room of a building in such a position that it is always ready for use.

Another object is to provide a device of this character adapted to be disposed within a compartment formed in the sill portion of a window casing and operated from said casing.

A still further object of the invention is to provide a device of this character which can be readily concealed beneath the window sill within a compartment formed therein and may be readily reached for use by swinging the window sill portion inwardly of the room and removing the fire escape from the compartment and hanging the same over the window sill, the fire escape being supported by means disposed within the compartment.

A still further object of the invention is to provide a fire escape of this character which can be adjusted when applied according to the distance from the window to the ground so as to prevent injury to the person using the fire escape by coming suddenly in contact with the ground.

A still further object of the invention is to provide a device of this character which may not only be regulated so as to reach the limit of its movement before coming in contact with the ground, but wherein means are provided for controlling the speed of descent of the person using the fire escape.

With the above and other objects in view, the invention consists in the improved construction and arrangement of parts to be hereinafter more particularly described, fully claimed and illustrated in the accompanying drawings, in which:—

Figure 1 is an elevation of a window casing showing in dotted lines the fire escape disposed within a compartment carried by the window casing,

Fig. 2 is an elevation of a window casing showing the fire escape extending from the compartment, and

Fig. 3 is a section taken on the line 3—3 of Fig. 2.

Referring to the drawings, 5 designates a conventional form of window casing including stiles 6 and the sill 7. The lower portion 8 of each of the stiles 6 is extended beyond the sill 7, while connected to the portion 8 is a casing including sides 9 and a bottom 10. The sill 7 is hinged as at 11 to the inner side member 9 of the casing, and is intended to be swung inwardly of the room so as to open the compartment. When the sill is in its closed position, it operates in the well known manner to support or engage the lower sash.

Disposed within the compartment, is a pair of pulleys 12, said pulleys having a swivel connection with eyes 13 projecting from the portions 8 of the stiles within the compartment. By supporting the pulleys through the medium of the eyes, resistance is overcome to a great extent and the pulleys permitted to adjust themselves to all conditions. Engaged with the pulleys 12, is a cable 14, said cable being of a length to extend from the window to the ground when doubled. The ends of the cable are provided with stirrups 15 formed by looping the ends of the cable, the stirrups being held in spaced relation by means of a rod 16 which is connected at its ends to the end portions of the cable. By this means, either the stirrups 15 or the rod 16 can be used to support the person using the fire escape, the stirrups 15 performing an additional function of preventing accidental disengagement of the rod 16 from the ends of the cable. With this construction, when the intermediate portion of the cable 14 reaches the pulleys, the fire escape is disposed at the limit of its movement and is positioned a sufficient distance from the ground to permit the user to step from the rod or stirrup on to the ground without injury. In this way danger of the fire escape descending suddenly and coming into contact with the ground with great force is eliminated.

In order to permit the fire escape to terminate the desired distance from the ground and at the same time control the descent of the person using the fire escape, there is pro-

vided an auxiliary or controlling cable 17. This cable is connected at one end to the intermediate portion of the cable 14, the cable 17 being provided with a series of knots 18 which permits a firm hold to be obtained on the cable without danger of slipping. The opposite end of the cable is provided with a loop 19 so as to permit a person standing on the ground to control the descent of the user of the fire escape, if desired.

In the use of the device, the entire fire escape including the controlling cable 17 is placed in the compartment formed in the sill portion of the window casing, and the sill 7 extended over the compartment to thereby conceal the fire escape. In case of fire, it is only necessary to raise the window, swing the sill 7 inwardly of the room, and throw the cable 17 out of the window. The user then inserts his feet into the stirrups 15, or positions himself on the rod 16. When the fire escape is thus positioned, the cable 14 is doubled, that is the stirrup or end portions are intended to move downwardly while the bight portion is intended to move upwardly. After the user is properly positioned on the fire escape, the upwardly and downwardly movable portions of the cable 14 are grasped so as to control the descent. After the intermediate portion of the cable 14 passes the bar 16 and stirrups 15 on its upward movement, the descent can be controlled by grasping the controlling cable 17. When the intermediate portion of the cable reaches the compartment, the fire escape is then disposed at the limit of its movement and the person may readily step from the fire escape on to the ground. The fire escape may then be returned by means of the cable 17 to the compartment to receive a second passenger if necessary.

By the use of this novel compartment, the fire escape can be placed so that it is always in convenient reach and yet is not unsightly as it is concealed within the compartment. In addition to this one of these fire escapes can be applied to each window of the building so that danger of panic caused by a number of people endeavoring to use a single fire escape is eliminated.

What is claimed is:—

A device of the character described comprising a window casing having a compartment in the sill portion thereof, a pair of spaced pulleys disposed in said compartment, a cable engaged with said pulleys, a rod extended between and connecting the ends of the cable to each other, the intermediate portion of the cable and the rod being adapted to alternate in limiting movement of the cable.

In testimony whereof I hereunto affix my signature.

SARAH M. LYLE.