No. 786,641. PATENTED APR. 4, 1905.

L. GROSSMANN.

FIRE ESCAPE.

APPLICATION FILED APR. 19, 1904.

Fig. 1.

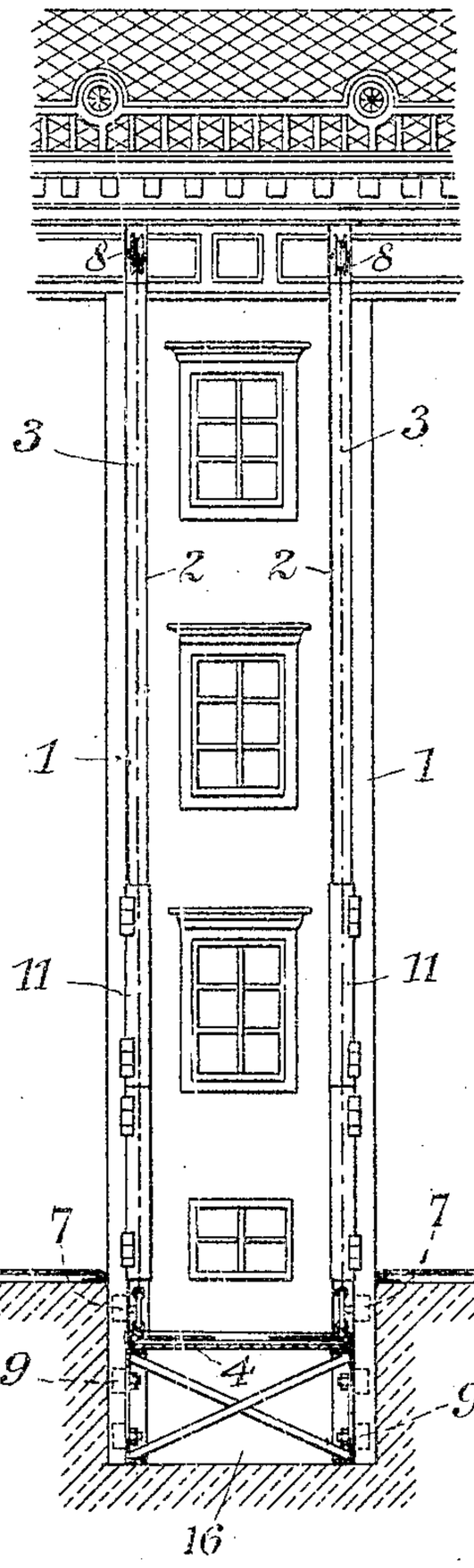


Fig. 2.

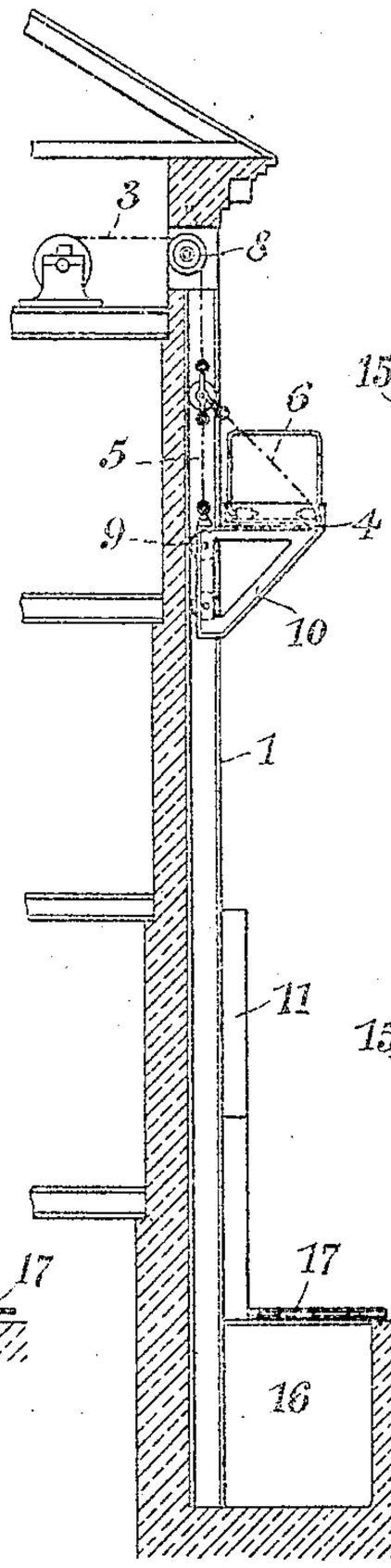


Fig. 4.

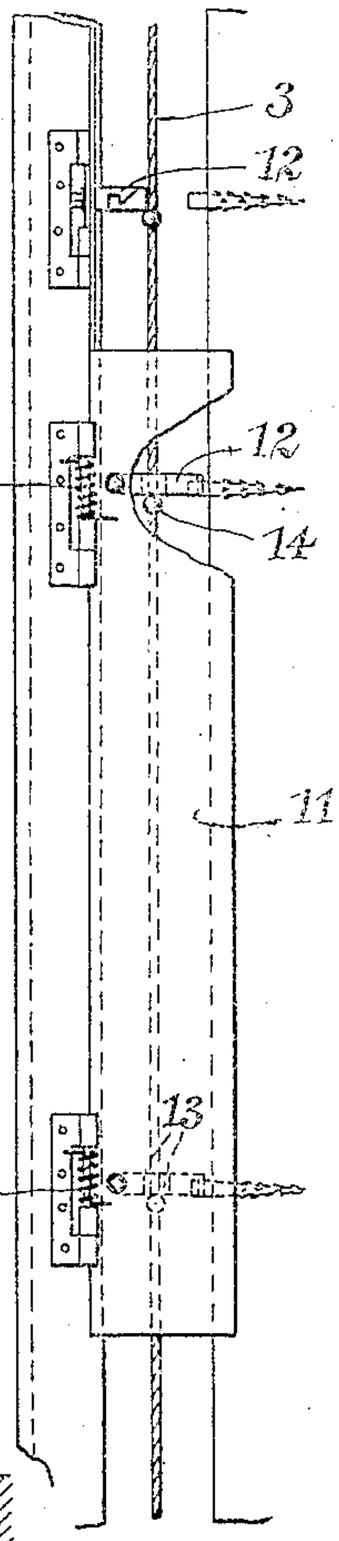


Fig. 3.

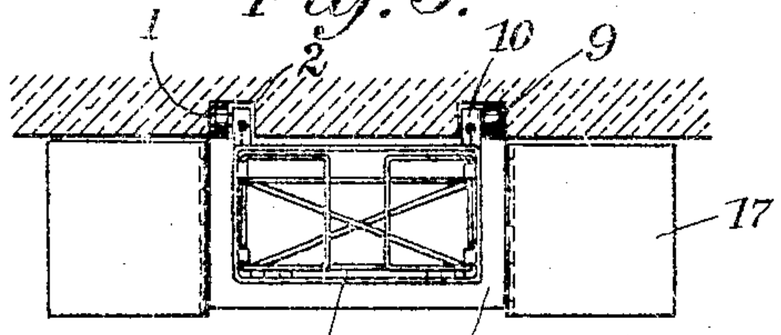
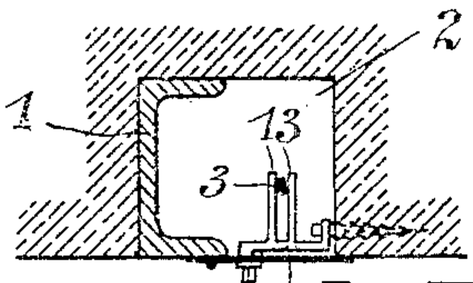


Fig. 5.



Witnesses

Wm. L. Bell.

Robert J. Pollitt.

Inventor

Louis Grossmann,

by Fraser & Townsend,

Attorneys.

No. 786,641. Patented April 4, 1905.

UNITED STATES PATENT OFFICE.

LOUIS GROSSMANN, OF VIENNA, AUSTRIA-HUNGARY.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 786,641, dated April 4, 1905.

Application filed April 19, 1904. Serial No. 203,954.

To all whom it may concern:

Be it known that I, LOUIS GROSSMANN, a subject of His Imperial Majesty the Emperor of Russia, residing at Vienna, in the Empire of Austria-Hungary, 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 it appertains to make and use the same, reference being had to the accompanying drawings, and to numerals of reference marked thereon, which form a part of this specification.

The present invention relates to fire-escapes, and especially to that class of fire-escapes which are arranged opposite vertical series of windows, and thereby serve as a means of safety for the inmates in case they are cut off from the stairways or exits. The lift of such a fire-escape will customarily in disuse (between operations) be hidden in a pit or hole in the pavement at the bottom and will thereby be protected, on the one hand, against exposure to the weather or wanton injury and, on the other hand, be masked or hidden. According to well-known fire-escapes of this type the ropes of the lift are entirely free, so that they stand exposed to these injurious influences and spoil the appearance of the building.

The invention aims at overcoming these objections by arranging the elevator-ropes when not in use in grooves, during which time the whole apparatus in complete readiness is entirely masked and shut in from outside damage. In order to make the ropes and other tackle completely inaccessible, the grooves are covered.

The accompanying drawings illustrate such an apparatus, Figure 1 in front elevation, Fig. 2 in vertical section, and Fig. 3 in horizontal section, Figs. 4 and 5 being details of the rope-groove shell, Fig. 4 being a front elevation, and Fig. 5 a horizontal section.

On both sides of a vertical series of windows are arranged the guideways 1, which have, preferably, a U-shaped cross-section and which are let into the walls of the building in any well-known manner. The ropes 3 of the lift 4 are arranged so as to hang close to and lie in the grooves 2 of the guideways 1, in consequence of which they are completely protected. The lift 4 is on both sides provided with two hangers 5 6, each pair of which is connected with a roller device 7. Each roller device travels in a guideway 1 and is carried by one of the ropes 3. The ropes thus lying in the grooves are led up over rollers 8 in the roof of the building, where they can be wound on a suitable drum in any well-known manner to thus effect coördinate movements of the two ropes. The supporting-frames 10 of the lift project into the grooves and are there provided with rollers or shoes 9, whereby the lift will be properly guided. In order to protect the guideways and ropes from being meddled with and from wanton damage, it is necessary to cover the grooves from the ground up to a suitable height. The protecting device shown in Figs. 4 and 5 is in the form of spring-actuated hinged doors 11, which carry pivoted catches 12, having inwardly-projecting lugs 13, between which the rope 3 is extended, which last is provided with buttons 14, whose impingement with the catches when the rope is pulled up upon releases said catches.

While the apparatus is out of use the lift is arranged between the guideways in a pit 16 in the ground, which pit may be ordinarily closed by one or more doors 17. In order not to make this hole too deep, it is well to make the lift capable of folding, as seen in Figs. 1 and 3. When the doors 11 are shut, the corresponding doors 17 for the lift will close in the latter when out of use and protect it against the effects of weather and malicious damage without the readiness of the apparatus for use being impaired.

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

1. The combination, with the vertical wall of a building structure, of a lift, grooved guides for the lift set into said wall, and lift-ropes connected with the lift and arranged in said guides, substantially as described.

2. The combination, with the vertical wall of a building structure, grooved guides for the lift set into said wall, lift-ropes connected with the lift and arranged in said guides and

doors hinged to said guides, substantially as described.

3. The combination of grooved guides, the lift, lift-ropes connected with the lift and arranged in said guides, doors for said guides and catches for holding the doors closed, said catches being operatively connected to said lift-ropes to be released thereby.

4. The combination with grooved guides, the lift, lift-ropes connected with the lift and arranged in said guides, spring-actuated doors for said guides and catches for holding the doors closed, said catches being operatively connected to said lift-ropes to be released thereby.

In testimony that I claim the foregoing I have hereunto set my hand this 29th day of March, 1904.

LOUIS GROSSMANN.

Witnesses:
ALVESTO S. HOGUE,
AUGUST FUGGER.