

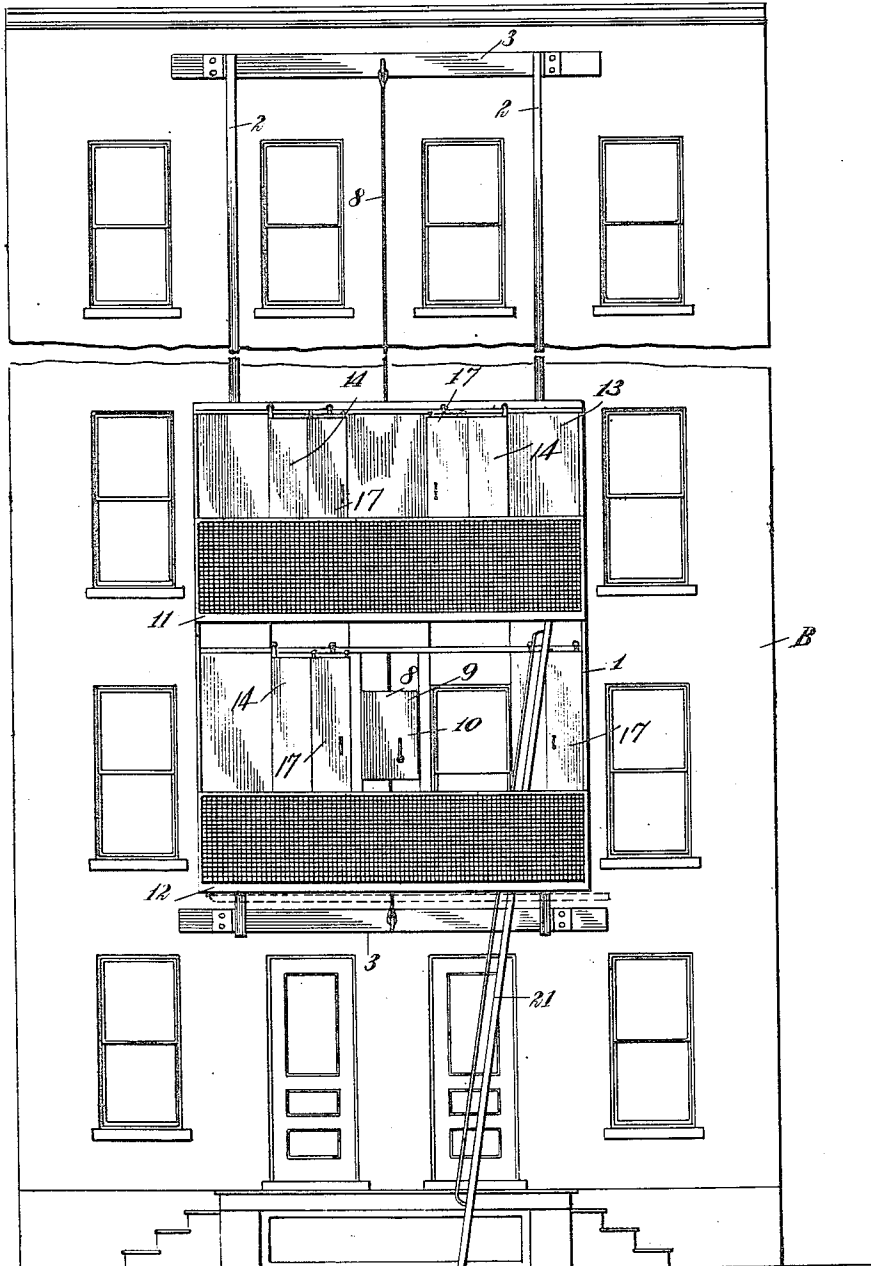
T. BOLDIZZONI.
FIRE ESCAPE APPARATUS.
APPLICATION FILED FEB. 7, 1911.

1,060,969.

Patented May 6, 1913.

2 SHEETS—SHEET 1.

Fig. 1



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 2

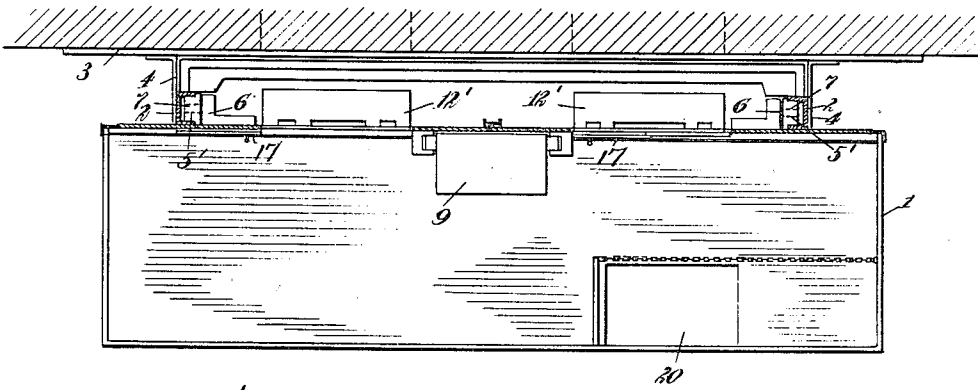


Fig. 3

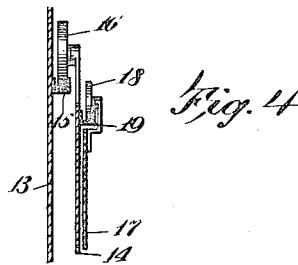
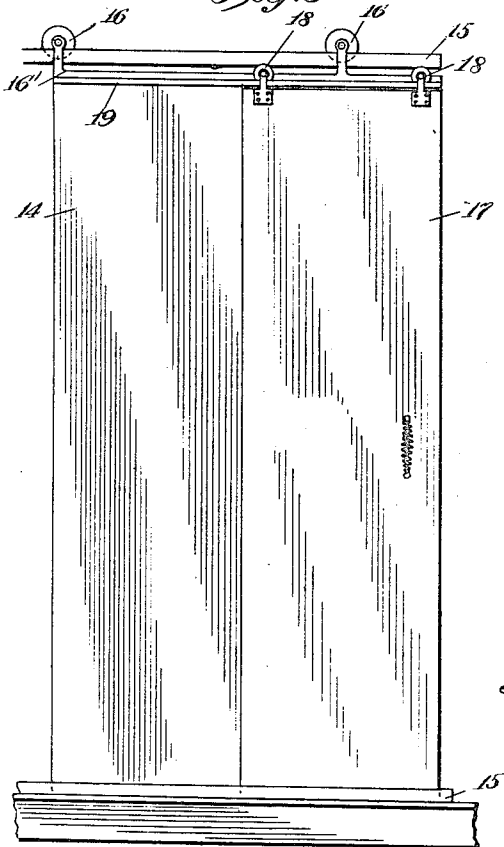
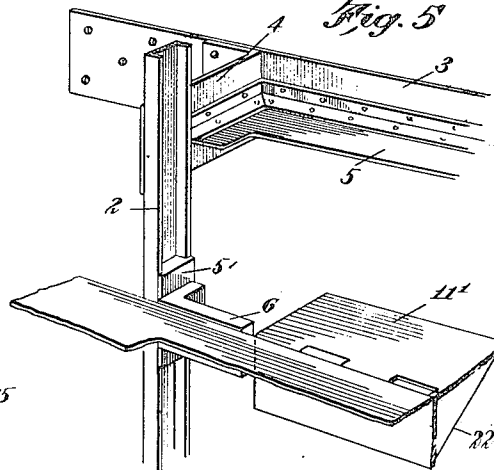


Fig. 4

Fig. 5



WITNESSES

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UNITED STATES PATENT OFFICE.

TEOBALDO BOLDIZZONI, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO LOUIS BUJESE, OF BROOKLYN, NEW YORK.

FIRE-ESCAPE APPARATUS.

1,060,969.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed February 7, 1911. Serial No. 607,012.

To all whom it may concern:

Be it known that I, TEOBALDO BOLDIZZONI, a subject of the King of Italy, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Fire-Escape Apparatus, of which the following is a full, clear, and exact description.

My invention relates to fire escapes of the type which includes a car or carriage mounted to slide up and down in guides fixed on the surface of the wall of a building, so that the inmates of the building, in case of fire, can utilize the same to make their escape by making a quick descent to the ground.

My invention consists of an improved construction of fire escape apparatus of the type mentioned, and the novel features thereof will appear in the following description and be pointed out in the claims attached thereto.

Reference is to be had to the accompanying drawings forming a part of this specification, in which the same characters of reference indicate the same parts in all the views.

Figure 1 is a view of a side of a building, showing my fire escape apparatus in position; Fig. 2 is a transverse horizontal section through the lower compartment of the car or carriage; Fig. 3 is a front elevation of the sliding doors in the car or carriage; Fig. 4 is a vertical section taken through the top of the doors shown on Fig. 3; and Fig. 5 is a detail view, showing the floor of the upper compartment of the car or carriage, and one of the pivoted sections which are hinged to the rear edge of the floor for the purpose of bridging the gap between the floor of the car and the sills of the windows in the side of the building on which the car is mounted.

My fire escape car or carriage is indicated by the numeral 1, and it is arranged to slide up and down in guides 2, which are arranged vertically, as shown, and are fixed to the surface of the wall of a building shown at B. These guides 2 are held in place by means of cross-beams 3, to which are fastened extensions 4, braced by means of angle-irons 5. The guides or rails 2 are fastened to the extensions 4 at their outer ends, and by this means are held spaced a

suitable distance from the wall of the building B, as shown particularly on Figs. 2 and 5.

The car or carriage 1 is provided with sliding shoes 5', pivoted to projections 6 on the rear wall of the car by means of bolts or studs 7. These shoes 5' fit into the guideways 2, which are channel-shaped in cross-section, as shown.

The car or carriage 1 is raised and lowered by means of a rope 8, which is fixed at its upper and lower ends to the cross-beams 3, and passes around a drum 8' in a casing 9, which is fixed to the rear wall of the lower compartment of the car or carriage. This casing 9 contains motor gearing of any suitable sort, by means of which the car can be raised, this motor gearing being actuated by a crank 10. I do not show or describe the motor gearing in detail, as the same is disclosed and claimed in my co-pending application, Serial Number 607,011 filed February 7, 1911.

The car or carriage 1 consists of upper and lower compartments having floors 11 and 12, respectively. The back of the car is closed by a wall or partition 13, which extends the full height of the car and shields the occupants of the same against flames and smoke that might pour out of the windows or other openings in the wall of the building, when the car or carriage is needed for use. Suitable doors are arranged to close openings in this rear partition, the doors being preferably two in number for each of the compartments, as shown. Each door consists of a main section 14, which slides in transverse horizontal guideways 15, said guideways being arranged at the top and bottom of the door and being channel-shaped in order that the doors may be securely mounted therein. The upper guideways 15 receive rollers 16, which are mounted at suitable intervals along a transverse bar 16', fastened to the top of the door section 14. Along the top of each door section 14 is also fastened a channel-shaped guideway 19, parallel with the bar 16' and of equal length therewith. Rollers 18 are mounted adjacent the upper edge of the door section 17, said rollers moving in the guides 19, so that the door section 17 can be moved with reference to the door section 14, while both of the door sections 14 and 17 can be moved to one side of the open-

ings in the rear wall 13, so as to permit the occupants of the building to enter the car or carriage through windows and other openings which the car or carriage passes as it moves down in the guideways 2.

The floors 11 and 12 of the upper and lower compartments of the car have openings 20 therein, and 21 is a ladder fastened to the floor 11 of the upper compartment and passing through the floor of the lower compartment. The ladder protrudes from the lower compartment for a distance approximately equal to the height of the first story, so that the car need not drop lower than the level of the second floor to permit the inmates therein to reach the ground. When it stops in the position shown on Fig. 1, the passengers thereof complete their descent by means of the ladder 21.

Hinged to the rear edges of the upper and lower floors 11 and 12 of the car 1, are sections 11' and 12', corresponding to the number of the doors. One of these sections is shown at 11' on Fig. 5. These sections are hinged to the rear edge of the upper and lower floors adjacent the openings in the rear wall 13, which are closed by the doors. They are of a width which is shorter than the distance between the surface of the wall of the building B and the partition 13. When the car is descending, the sections will be held in position by triangular supports 22 at the rear of the car, and will readily yield upward. Consequently there will be no danger of accident in case any person has his head sticking out one of the windows as the car passes.

The car is raised by means of the handle 10, operating the motor gearing, which winds up the rope 8. When the car is to be lowered, a catch is released, and the car then starts on its downward course. Suitable braking mechanism and safety appliances may be provided to prevent the car from descending too rapidly, and as these may be of any ordinary or approved type I do not deem it necessary to show the same on the drawings. Such braking mechanism, however, along with the motor gearing by which the car is raised, is fully disclosed and claimed in my co-pending application above referred to.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A fire escape apparatus consisting of a car or carriage arranged to move in guideways upon the surface of a wall of a building, said car or carriage having a floor, the rear edge of which moves adjacent the wall

of said building and a pivoted section hinged to the rear edge of the said floor, said car having means for supporting said section in a horizontal position, said section being designed to yield upward on encountering an obstruction.

2. A fire escape apparatus consisting of a car or carriage, said car or carriage comprising a floor and a closed rear wall extending over the height thereof and having an opening therein, sliding doors for opening and closing said opening, a pivoted section hinged to the rear edge of the floor of the car adjacent said opening, means carried by the car for supporting said section in a horizontal position, said section being designed to yield upward on encountering an obstruction, the floor of said car having an opening formed therein, a ladder attached to the said car and extending beneath the same, and guideways arranged upon the surface of a wall of a building to permit the car to move up and down along the same, whereby when the car reaches the end of its descent the occupants can descend by means of the ladder to the ground.

3. A fire escape apparatus consisting of a car or carriage, said carriage having upper and lower floors therein forming separate compartments, a closed rear wall carried by said car or carriage and extending over the entire height thereof, said rear wall having openings therein and sliding doors for opening and closing said openings, pivoted sections hinged to the rear edges of the floors of said car or carriage adjacent said openings and supported in a horizontal position, said sections being designed to yield upward on encountering an obstruction, the upper and lower floors of said car having openings formed therein, a ladder attached to the floors of said car at the edges of said openings, said ladder extending beneath said car a distance substantially equal to the height of one story of the building on which the fire escape apparatus is used, and guideways arranged upon the surface of the wall of the said building and terminating at the top of the lower story, whereby when the car reaches the end of its descent the occupants thereof can descend by way of the ladder to the ground.

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

TEOBALDO BOLDIZZONI.

Witnesses:

JOSEPH MACARIO,
PHILIP D. ROLLHAUS.