

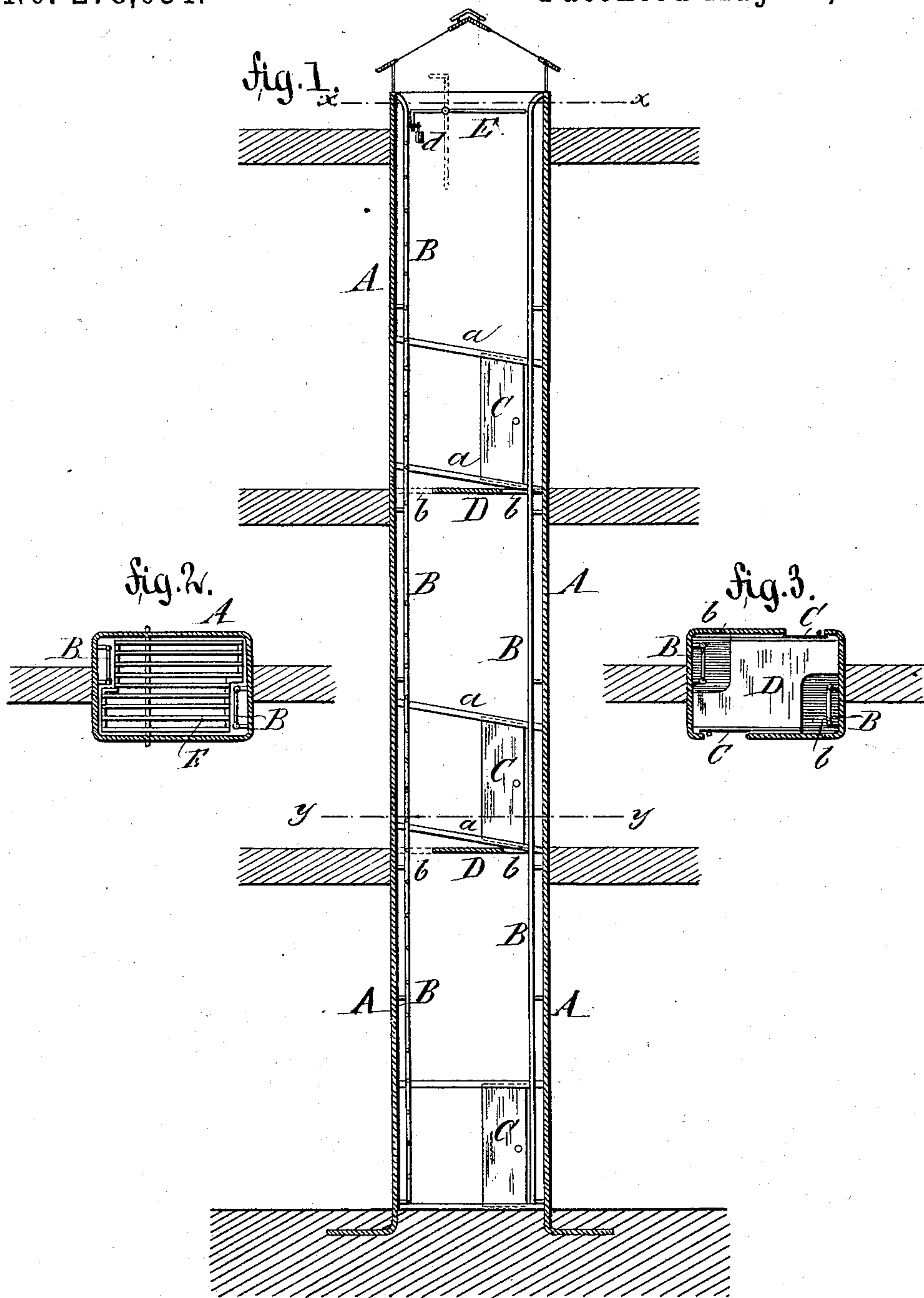
(No Model.)

F. MELCHIOR.

FIRE ESCAPE.

No. 278,034.

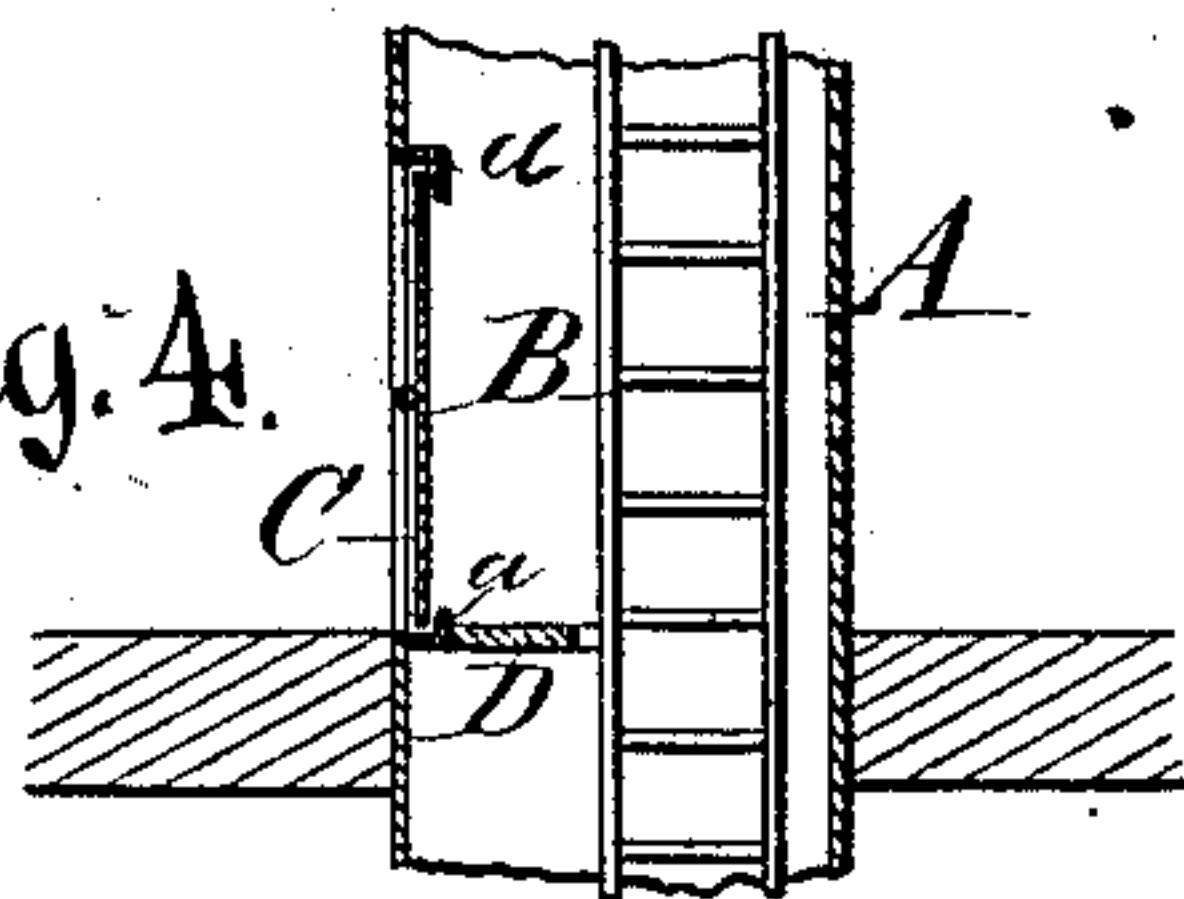
Patented May 22, 1883.



WITNESSES:

For W. Rosenbaum
Otto Risch

Fig. 4.



INVENTOR

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FRIEDRICH MELCHIOR, OF NEW YORK, N. Y.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 278,034, dated May 22, 1883.

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

To all whom it may concern:

Be it known that I, FRIEDRICH MELCHIOR, of the city, county, and State of New York, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

The fire-escapes heretofore in use were generally located at the outside of the buildings, where they formed an unsightly attachment, without being available for use to all persons and in all cases of fire.

The object of this invention is to furnish a fire-escape that is located at the interior of the building, so as to be readily accessible, and furnish, when once reached by the persons trying to escape, an absolutely reliable and safe means of getting out of the building, and also a convenient means of giving ingress to the firemen, who can thereby approach without danger from smoke and heat to that part of the building which is on fire.

The invention consists of a vertical shaft of suitable fire-proof material, that extends at the inside of the building from the basement to the roof, and which is provided at one or more sides with gravity-doors sliding on inclined guideways. At the interior of the shaft are arranged ladders that extend throughout the length of the same. A fixed platform or landing having recesses or openings around the ladders is arranged in the escape-shaft on a level with each floor of the building. The upper end of the escape-shaft is provided with a grating and a suitable locking device.

In the accompanying drawings, Figure 1 represents a vertical section of my improved fire-escape, shown as arranged in a building. Figs. 2 and 3 are horizontal sections, respectively on lines *x x* and *y y*; and Fig. 4 is a vertical transverse section of a portion of the escape-shaft.

Similar letters of reference indicate corresponding parts.

A in the drawings represents a vertical shaft, of suitable size, that extends from the basement through corresponding openings in the different floors and the roof of the building. The lower end of the shaft A is set securely into cement, and preferably provided at the upper end with a skylight, by which light is supplied to the interior of the shaft.

The shaft A is made of sheet-iron, of suitable thickness, or of other suitable fire-proof material. At the interior of the shaft A are supported one or more vertical ladders, B, which extend through the entire height of the shaft A at such a distance from the walls that sufficient space is given to the feet in ascending or descending. The ladders B are preferably arranged at the shorter side walls, and near the diagonal corners of the shaft, as shown in Fig. 3. On each floor of the building the shaft A is provided with sliding doors C, which run on inclined guideways *a a*, so that they close by their own gravity when a person has entered by the opening into the shaft. On a level with the floors of the building the shaft A is provided with horizontal platforms or landings D, which are provided around the ladders B with recesses or openings *b b* of a sufficient size to admit the ready passage of persons. The platform or landings D may be made of wood or iron, preferably of iron gratings, so as to diffuse the light down to the lower part of the shaft A. The upper end of the shaft A is closed by a grating, E, which is pivoted at one side of its center line, and secured by a suitable locking device, *d*, that can only be opened from the inside of the shaft. The grating E opens automatically when the locking device *d* is replaced, and prevents access to the building from the roof when locked.

In case of fire the occupants of the building enter the escape-shaft through the sliding gravity-doors arranged in the side walls of the shaft, and pass down along the ladders to the first floor or basement, as the case may be, so as to escape from the building without using the stairs. As the doors close by their own weight, the smoke is prevented from entering into the shaft. Should, however, some smoke enter the shaft, it would be readily drawn off by the draft which is established by the opening of the lowermost doors, which latter do not slide on inclined ways, but on horizontal guides, so as to remain in open position and give admission to the air.

By this interior fire-escape even women and children, who in most cases are afraid to use outside fire-escapes, can pass out of a burning building without annoyance from smoke, so that the fire-escape is of special advantage for

tenement-houses, factories, and other buildings which are occupied by a large number of persons.

5 The interior fire-escape may also be of use for the firemen to get in and get their hose to any part of the building, whereby the extent of the fire can be ascertained and the same be brought quickly under control.

10 It is the best to put this fire-escape in new buildings; but it may also be erected in old buildings, especially when they undergo a repair, at comparatively small expense.

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

15 1. A fire-escape consisting of a vertical shaft extending from basement to roof, interior ladders, horizontal platforms or landings having

recesses around the ladders, and a sliding door or doors above each landing, substantially as set forth. 20

2. The combination of the vertical shaft A, interior ladders, B B, horizontal and recessed landings D, sliding doors C C on each floor, and a grating, E, having an interior locking device, d, at the top of the shaft A, substantially as set forth. 25

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

FRIEDRICH MELCHIOR.

Witnesses:

CARL KARP,
OTTO RISCH.