(No Model.)

W. F. CULLEN.

FIRE ESCAPE.

No. 304,619. Patented Sept. 2, 1884.

Fig. 1.

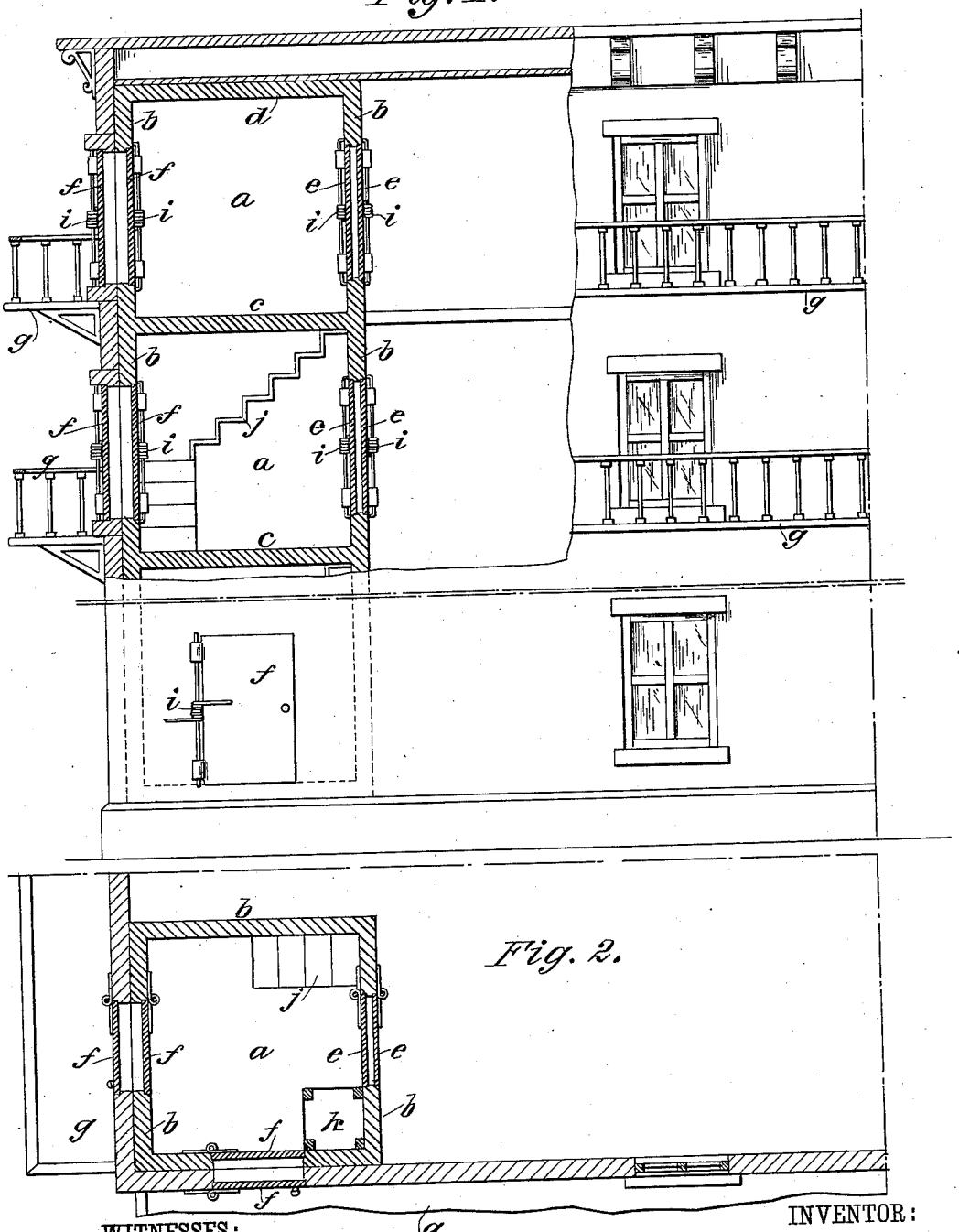

Fig. 2.

WITNESSES:

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 304,619, dated September 2, 1884.

Application filed November 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. CULLEN, of Logansport, in the county of Cass and State of Indiana, have invented a new and Improved Fire-Escape, of which the following is a full, clear, and exact description.

My invention relates to improvements in fire-escapes; and it consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is partly a side elevation and partly a sectional elevation of a building constructed with my improved fire-escape, and Fig. 2 is a horizontal section of the same.

In any approved part of a building, but preferably in one corner, and connecting with the main hall, I propose to construct a fire-proof compartment, *a*, on each floor, forming a series of such compartments, one above another, and extending from the ground floor to the top of the building, or through as many floors as desired, the walls *b*, floors *c*, and ceilings or roof *d* being constructed of fire-brick or other approved fire-proof material; and I construct the same with fire-proof and self-closing doors *e*, communicating with the interior of the building; also with fire-proof and self-closing doors *f*, opening through the side or sides of the building, on the balconies *g*, which I arrange under the windows of every story of the building above the ground, and to extend all around the building, or as nearly so as is practicable, to enable people to reach the fire-escape by the exterior passages when cut off from the more direct interior course by fire within the building. I prefer to make the doors of boiler-iron and to use double doors with springs *i* of any approved kind, for closing them self-actingly, one of said doors opening inward and the other outward of the said compartments, whereby the fire is more effectually prevented from entering the compartments when the occupants are passing out from the same, as the compartments will be practically closed at all times. Within the compartments I construct iron, stone, or other fire-proof stairs *j* from one story to another, and, in case an elevator is used, will arrange the way *k* for the same in said compartments, and build it of fire-proof material, so that the elevator will also be available for escape, and will itself be protected from the fire, and thus will not constitute a flue that accelerates the fire, as elevator-ways generally do.

This device affords, practically, the advantages of a complete fire-proof building, so far as protection from fire is concerned, without the cost of constructing the whole building fire-proof, and it may be readily built into buildings already constructed.

It is evident that the said device will afford easy and safe means of escape for women, children, and other weak and timid people.

In practice it is designed to make the compartments of sufficient size to contain at once as many people as are likely to occupy a floor of the building at any one time, so that all can at once escape into the compartment, and the door may be quickly closed behind them, to exclude the heat, smoke, and fire. When once within the compartment, it is evident that fire anywhere or on any floor of the building will not prevent the safe descent of the people at leisure, even though the fire may be burning fiercely on the lower floors in close proximity to the compartments. The floors of the different compartments being fire-proof precludes all possibility of danger to those within the escape-chambers and stops all draft of heat or smoke. The chambers being of sufficient size to accommodate the occupants of the different floors prevents the fearful rush for life incident to all other fire-escapes. By reason also of the safety and permanence of these escape-chambers, firemen and rescuers are enabled to pass up to the different stories and rescue those who might be overcome with heat or smoke, and also to battle with the fire, always having a safe exit to escape.

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

1. An improved fire-escape consisting of a series of fire-proof compartments, *a*, arranged one above the other upon the several floors of

a building, and each provided with self-closing doors, the several compartments communicating with each other and provided with means of escape from one compartment to the other, substantially as herein shown and described.

2. The improved fire-escape herein described, consisting of a series of fire-proof compartments, *a*, arranged one above another, in a corner or other convenient part of the building, and having fire-proof and self-closing doors communicating with the different floors of the building, also with exterior balconies arranged along the sides of the building, under the windows of the same, and also having stairs connecting the several compartments of the series, for escape to the ground, substantially as hereinbefore set forth.

WILLIAM FIELDS CULLEN.

Witnesses:

CHARLES W. OVERLEY,

WILLIAM REED.