(No Model.)

P. A. NICHOLSON.

FIRE ESCAPE.

No. 258,247. Patented May 23, 1882.

FIG. 5.

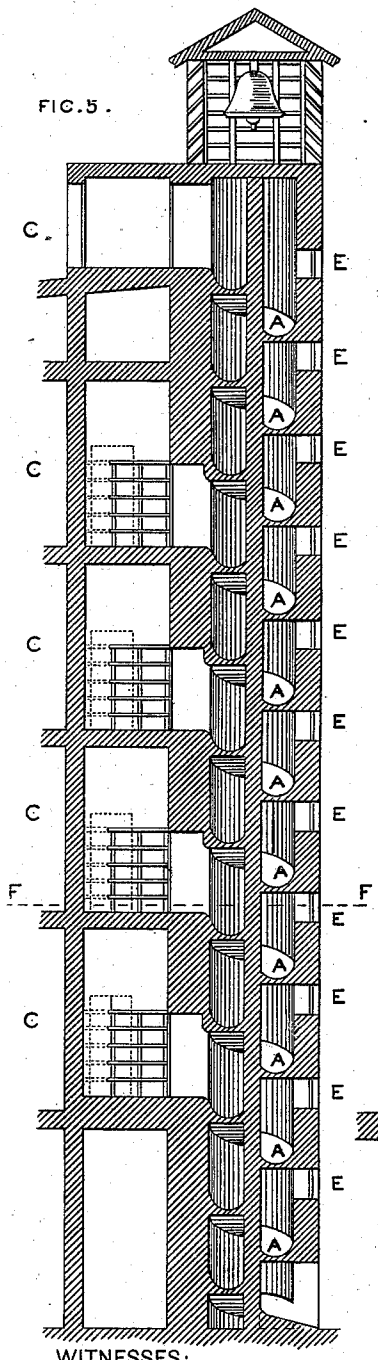


FIG. 6.

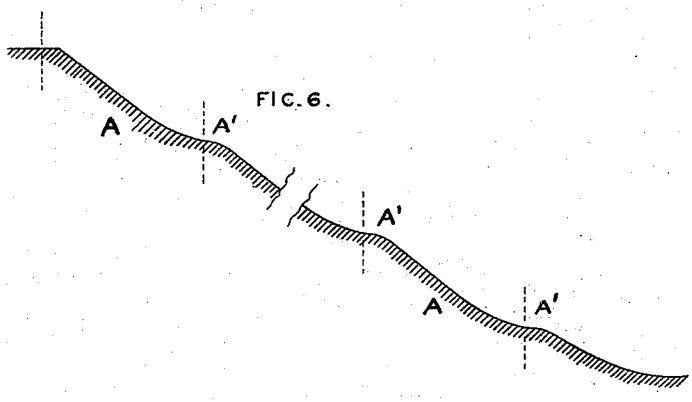


FIG. 3.

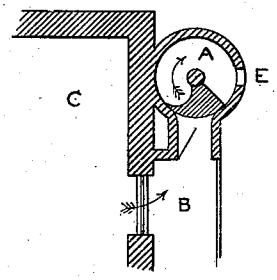


FIG. 4.

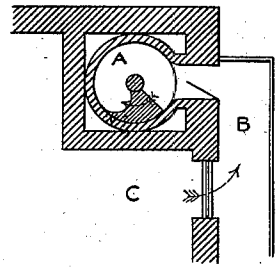


FIG. 2.

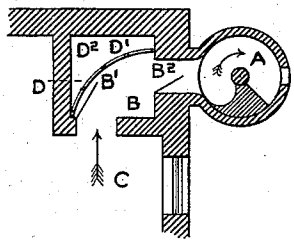
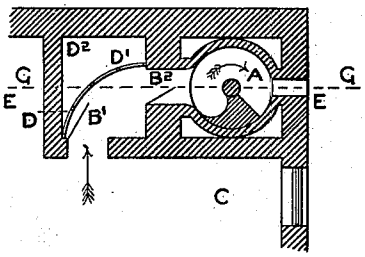


FIG. 1.



WITNESSES:

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UNITED STATES PATENT OFFICE.

PETER A. NICHOLSON, OF PHILADELPHIA, PENNSYLVANIA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 258,247, dated May 23, 1882.

Application filed November 3, 1881. (No model.)

To all whom it may concern:

Be it known that I, PETER A. NICHOLSON, a citizen of the United States, residing in the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Fire-Escapes; and I do hereby declare the following to be a sufficiently full, clear, and exact description thereof to enable others skilled in the art to make and use the said invention.

The object of this invention is to afford an easy, safe, and reliable means of enabling persons in the upper portions of buildings in state of conflagration to reach the ground outside of the building.

The nature of this invention consists in an inclined passage-way having variation in its angle of descent, down which persons may quickly but with retarded velocity safely descend from openings leading thereto from the upper apartments of the burning building; also, in a system of passage-ways leading thereto and having air-chambers with doors in communication therewith, by which danger of suffocation from smoke is avoided; also, when the inclined way is made spiral, for sake of greater compactness in the form of the inclined surface, so as to guide the motion of persons sliding down and counteracting the centrifugal effect of the rotative motion, the whole structure assuming the form of a tower built of stone, brick, and cement, or of metal, as usually employed in architectural constructions.

I will now proceed to particularly describe this invention and the operation thereof, referring in so doing to the drawings annexed and the letters of reference marked thereon.

Figure 1 shows a plan on dotted line F of Fig. 5; Figs. 2, 3, and 4, modifications thereof; Fig. 5, a sectional elevation on dotted line G of Fig. 1; Fig. 6, a projection in section, illustrating the variations in pitch or inclination of the slide.

The same letters of reference apply to the same parts in the several figures.

A represents an inclined sliding surface, having frequent variations in pitch or inclination, A′, for the purpose of repeatedly retarding sliding movement, as shown in Fig. 6.

B are passage-ways leading from the several stories, C, of the building to the slide or incline A.

B′ and B² are fire-proof doors in the passage B, opening freely outward from the apartments C to the incline A′. These doors B′ and B² are preferably made to be automatically closed by the form of their hinges or by weights or springs. Air-chambers D are formed in the passage-ways B by means of screens D′, which prevent persons during a panic being crowded into the angles D² and obstructing the passage-ways B, and also to furnish air for respiration to persons while in the passages B. When the inclination is made in spiral form, as shown in the first five figures of the drawings, window-openings E are made through the wall of the inclosing tower on the side farthest from the building, and at such height from the incline A as not to endanger persons sliding thereon from striking against the sides of the openings E.

The window-openings E prevent the formation of a chimney effect of draft, which, if it should occur, might draw a column of smoke or flame into the tower.

In tranverse section, as shown in Fig. 1, the surface of the incline is made concave or hollow in the center and made highest at the outer edge, so as to resist the centrifugal effect of persons sliding in the curve of the spiral.

To use this tower, persons enter it and simply slide down to the opening at the base, where they escape, and in sliding down their motion is retarded as they pass the nearly horizontal parts marked A′ in the drawings.

Having described my invention, what I claim as new and useful therein is—

1. A grooved or concave inclined slide formed of incombustible and rigid material, having numerous variations in inclination, adapted to retard persons descending thereon, substantially as set forth and described.

2. A grooved inclined spiral slide of varying inclination, having the outer side raised to adapt it to resist the centrifugal action of persons descending, substantially as set forth and described.

3. An inclined spiral slide, A, in combination with passage B, doors B′ and B², and air-chambers D, arranged substantially as described and shown.

PETER A. NICHOLSON.

Witnesses:

J. DANIEL EBY,

LINN WHEELER.