(No Model.)

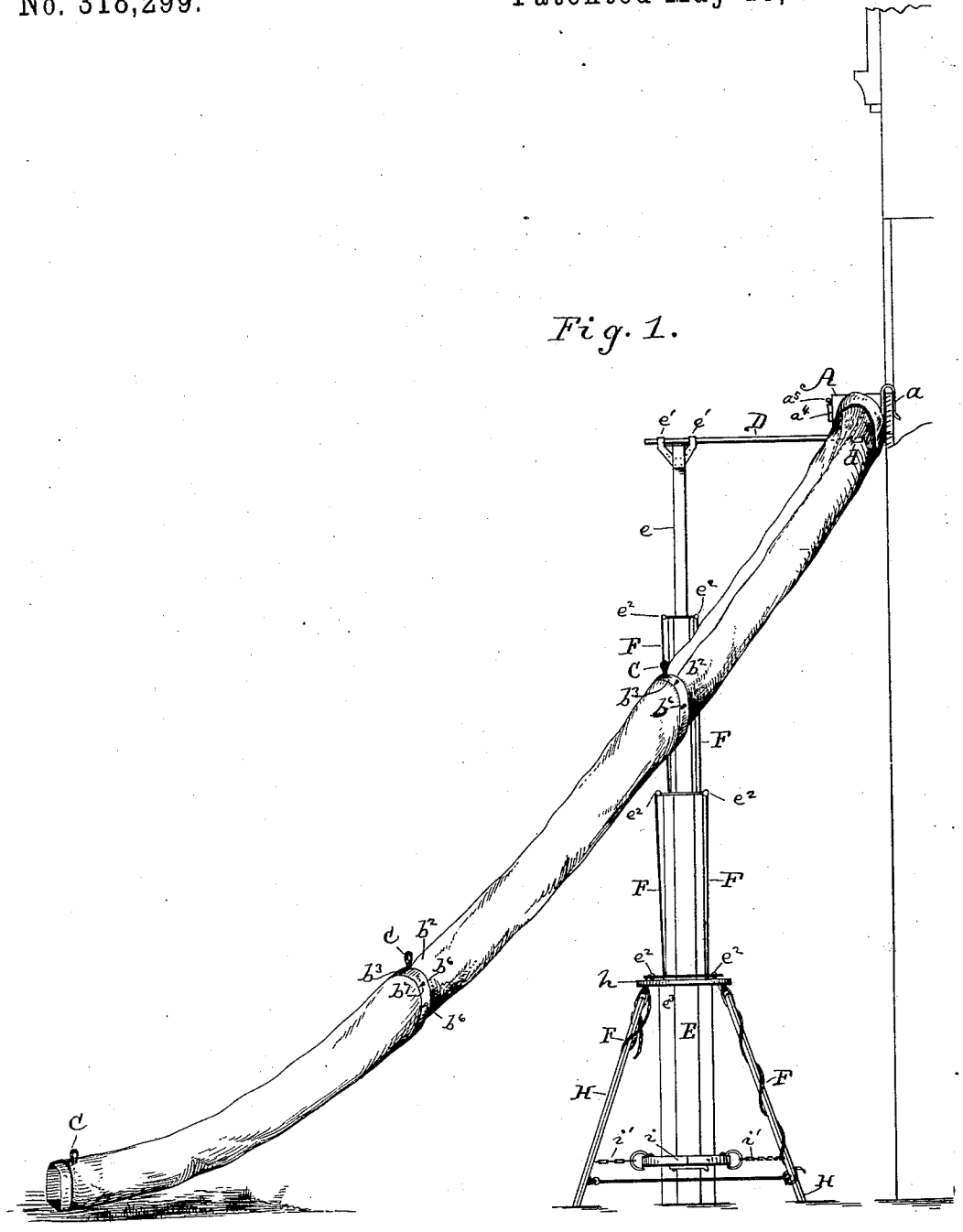
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S. SAMPER.

FIRE ESCAPE.

No. 318,299. Patented May 19, 1885.

Fig. 1.



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(No Model.) 3 Sheets—Sheet 2.

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FIRE ESCAPE.

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Fig. 2.

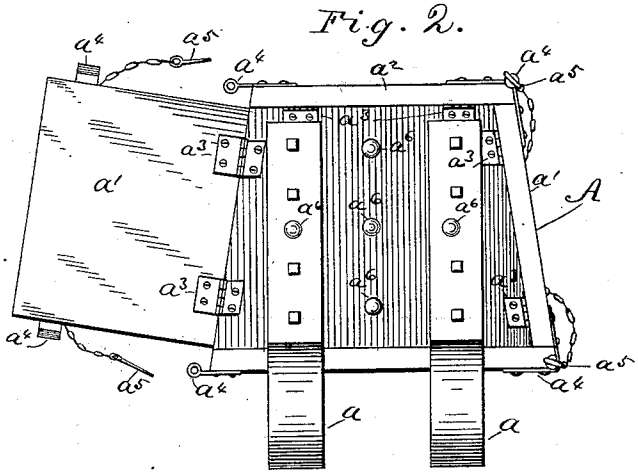


Fig. 3.

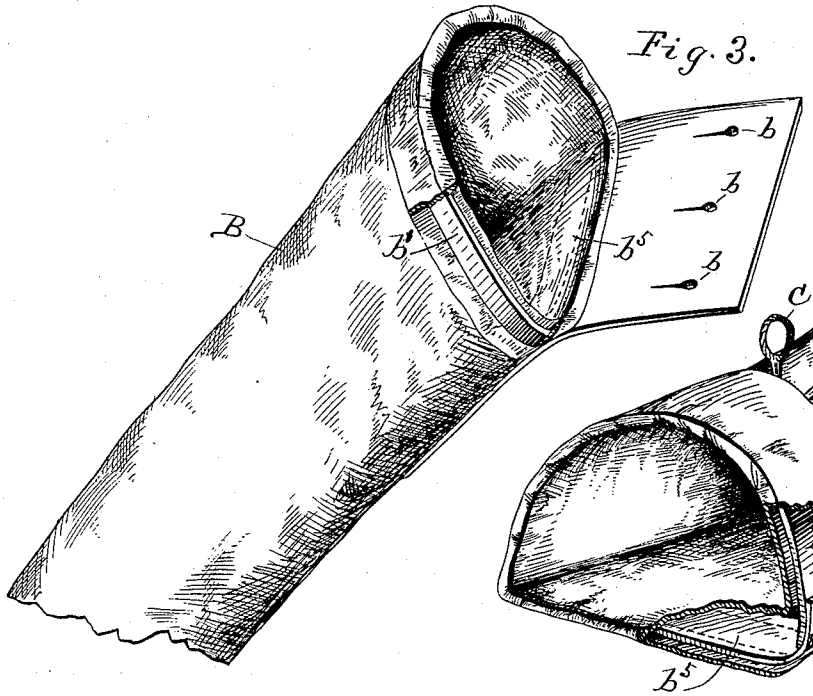


Fig. 4.

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FIRE ESCAPE.

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Fig. 5.

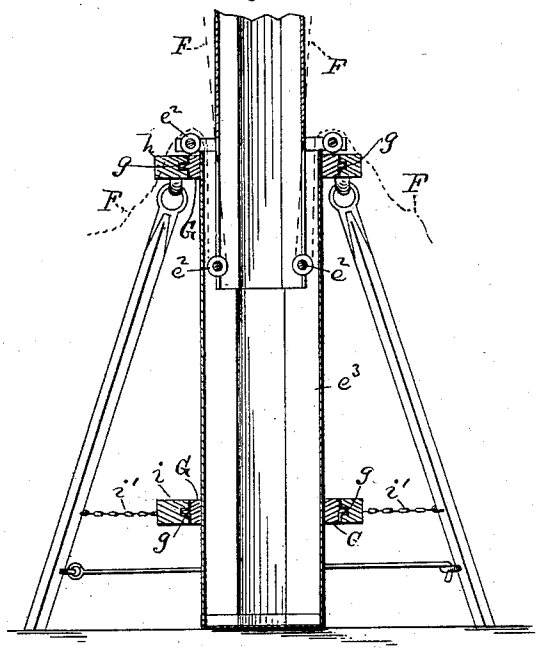
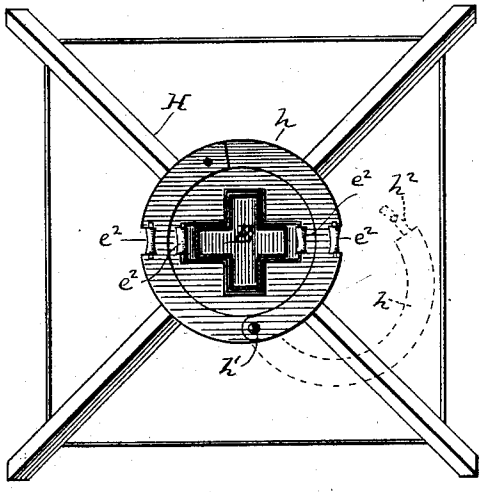


Fig. 6.



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UNITED STATES PATENT OFFICE.

SILVESTRE SAMPER, OF NEW YORK, N. Y.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 318,299, dated May 19, 1885.

Application filed April 4, 1885. (No model.)

To all whom it may concern:

Be it known that I, SILVESTRE SAMPER, a citizen of the United States of Colombia, South America, residing in the city, county, and State of New York, 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, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of my fire-escape, showing the tower in its elevated position, with the portable balcony attached to the sill of a window, and with the canvas chute in position for escape. Fig. 2 is a detail plan view of the portable balcony. Fig. 3 is a detail view of the chute in perspective, showing the top section and method of jointing. Fig. 4 is a perspective view of the end of the bottom section of the chute, with the canvas covering partly removed. Fig. 5 is a vertical section through the center of the lower part of the tower. Fig. 6 is a plan view of the same.

My invention relates to fire-escapes; and it consists in the detailed construction and combination of the parts hereinafter described, by which people can escape from the upper stories of buildings after communication with the ground by means of the staircase has been cut off by the progress of the flames.

In the accompanying drawings, similar letters of reference indicate corresponding parts in all the figures.

A is the portable balcony, provided with hooks *a*, by which it may be attached to the outside of a window by placing the said hooks over the window-sill. The back of the balcony then rests against the wall of the house below the window. The sides *a'* of the balcony, and also the front portion of it, a^2, are provided with hinges a^3 for attaching them to the bottom, so that the front or either of the sides can be let down, according to the direction in which it is thought most desirable to escape. The front portion, a^2, of the box thus formed is made narrower than the back, so that the sides form an inclination with the front of the building greater than a right angle. The chute, when attached so that escape may be made from the side of the balcony, is inclined outward toward the middle of the street and only approaches the house-wall at the extreme top. Latches a^4 are attached to the back, front, and sides of the balcony, and pins a^5 are provided for holding them in position. Studs a^6 are fastened on the inside of the bottom of the balcony, to which the top end of the chute may be attached. Three holes are formed in the top part of the chute, and the studs a^6—five in number—are so arranged on the bottom of the balcony that whenever the front or either one of the sides of the said balcony is let down three of these studs are always in line, so that the end of the chute can be attached to them.

B is the chute, which is made in sections of any convenient length. The top section is preferably made of non-combustible material, and is provided with three holes, *b*, at the top end for engaging with the studs in the bottom of the balcony, and a hoop, *b'*, is provided, round which the material of the chute is fastened, so that the top opening is always held open. The lower end, b^2, of each section of the chute is made smaller than the top portion, b^3, of the next section and fits into it, so that there is nothing to obstruct the passage of any body when sliding down the chute. Each lower end, b^2, is provided with an arched plate, b^4, of iron or other hard material, and with a flat plate, b^5, of softer material, such as leather. These plates are covered with the material of which the chute is made, and buttons b^6 are provided, to which the top portions, b^3, can be attached. Each top portion, b^3, is provided with iron and leather plates, similar to those in the lower ends which fit into them. b^7 are holes for engaging with the buttons b^6 on the said bottom ends.

C is a ring. One of these is attached to the top of each of the arched plates in the lower ends of the sections of the chute, so that the extreme end of the chute can be held up clear of the ground by passing a bar through the ring C, and thus the egress of any one sliding down the chute can be made safe and easy. The arched iron plates are for holding the sections of the chute, so as to present an open passage. The flat plates are made of softer material, so that any one sliding rapidly down the said chute will not be hurt by passing over them. The portable balcony and chute can

be kept inside the house, and can be attached to the window-sill when required, or they may be attached to the window-sill of an upper story and worked from the outside, when no escape has been provided for, by the following means:

D is a bar of wood or other suitable material, provided at one end with a screw, *d*, or with other means for attaching it securely to the bottom of the portable balcony A.

E is a tower, made in sections which slide one within the other. The top section, *e*, of this tower is provided with sockets *e'*, in which the bar D can be slid back and forth. Each intermediate section of the tower is provided with pulleys e^2 at the top and at the bottom. These pulleys may be either single or double, in order to keep the cords in position.

F are cords which pass over the pulleys e^2, and are made fast to the bottom of the top section, *e*, so that when the said cords F are pulled the sections will be drawn out, and the top of the tower, together with the portable balcony attached to it, will be raised to any required height. The cords F run in channels on the sides of the tower, so that the cords are preserved from injury. The ends of these channels are cut away to let the cords run freely. The bottom section, e^3, of the tower has the pulleys e^2 at the top only, but has rings G securely fastened upon it. Each of these rings is provided with a middle flange, *g*, projecting from it.

H is a stand consisting of four legs and circular rings, in which the rings G are free to turn. Of these, the top rings, *h*, are provided with hinges *h'* and latches h^2, so that they can easily be coupled to the top ring G, the flange *g* of which comes between the two rings *h*. The legs which support the stand are fastened to the top rings, *h*, at convenient points. Two other rings, *i*, are attached to the legs of the stand by chains *i'*. These two rings are connected together and surround the bottom ring G, the flange *g* of which comes between them. They help to support the tower E, so that it can be made to revolve in either direction on the stand H.

The portable balcony, with the bar D attached to it, is fastened to the sockets at the top of the tower, so that the hooks on the said balcony will hook over a window-sill when the tower has been raised to the required height and turned round on the stand, so as to bring the said hooks into position for attaching to the window-sill. The chute can be attached to the stands on the bottom of the balcony, so that escape can be made by the front or by either of the sides, as found most convenient, before the tower is raised.

Instead of cords F for raising the sections of the tower, cables of wire, chains, or any other device which will run over the pulleys may be employed.

The portable balcony A is made in the form of a box with folding sides, so that people slipping out of the window into it may be prevented from falling before they enter the open end of the chute.

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

1. In a fire-escape, the portable balcony A, in the form of a folding box provided with hooks *a*, hinged sides *a'*, made inclining, the hinged front a^2, made narrower than the back, and the latches and pins for holding said sides and front in position, substantially as described and shown, and for the purpose set forth.

2. In a fire-escape, the chute B, made in sections which may be joined together, and provided with the arched plates b^4 of iron, the flat plates b^5 of softer material, and the rings C, substantially as described and shown, and for the purpose set forth.

3. In a fire-escape, the portable balcony A, provided with hooks *a*, hinged sides *a'*, made inclining, the hinged front a^2, made narrower than the back, the latches and pins for holding the sides and front in position, and the studs a^6, in combination with the chute B, made in sections joined together, and provided with the arched plates b^4 of iron, the flat plates b^5 of softer material, and with holes *b* at the top end of the chute, substantially as described and shown, and for the purpose set forth.

4. In a fire-escape, the combination of the lower tower-section and ring G, having a flange, as specified, with the hinged rings *h*, chains *i*, and stand H, all as shown and described.

5. In a fire-escape, the combination of the tower E, made in sliding sections, and provided with the pulleys e^2, cords F, sockets *e'*, the bar D, and portable balcony A, provided with hooks *a*, hinged sides *a'*, made inclining, the hinged front a^2, made narrower than the back, and the latches and pins for holding the said sides and front in position, substantially as described and shown.

6. In a fire-escape, the combination of the tower E, made in sliding sections, and provided with the pulleys e^2, cords F, and sockets *e'*, the rings G, attached to the bottom sections of the tower, the stand H, provided with legs, hinged rings *h*, rings *i*, and chains *i'*, the bar D, the portable balcony A, provided with hooks *a*, hinged sides *a'*, made inclining, the hinged front made narrower than the back, the latches and pins for holding the said sides and front in position, and the studs a^6, and the chute B, made in sections, substantially as described and shown, and for the purpose set forth.

SILVESTRE SAMPER.

Witnesses:
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H. W. T. JENNER.