

No. 644,265.

Patented Feb. 27, 1900.

P. C. THIRION.

FIRE ESCAPE.

(Application filed Nov. 10, 1899.)

(No Model.)

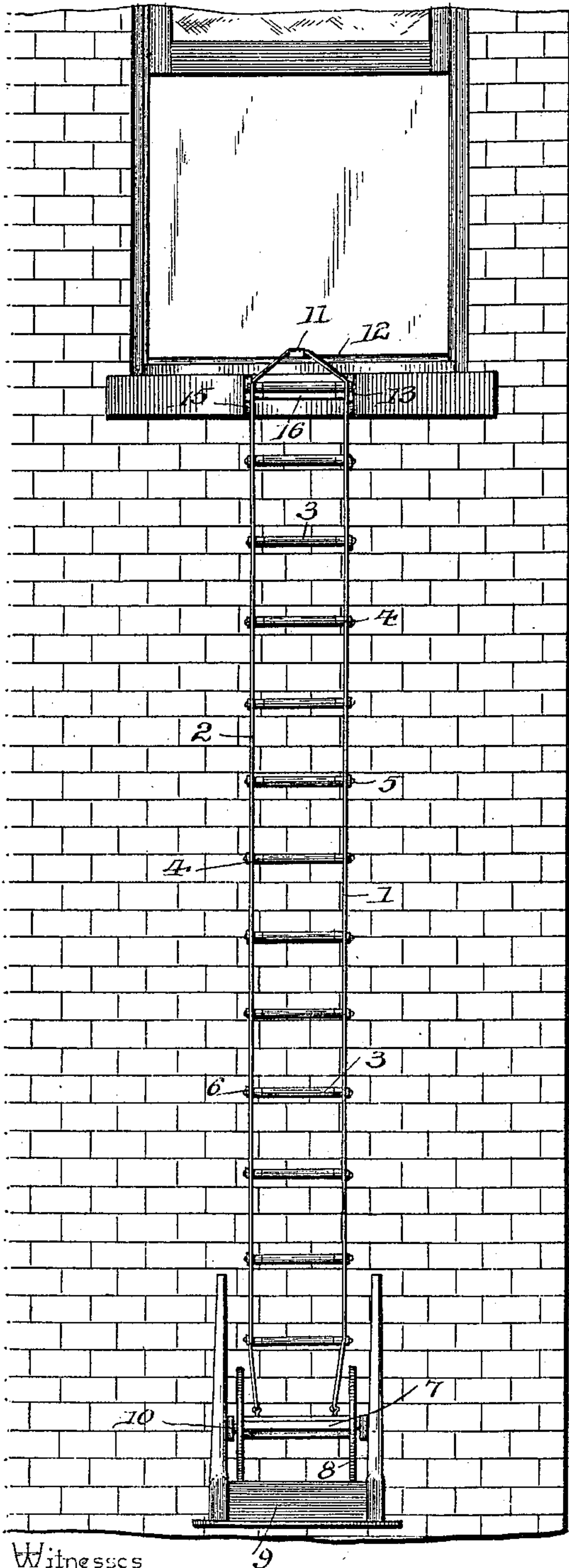


Fig. 1.

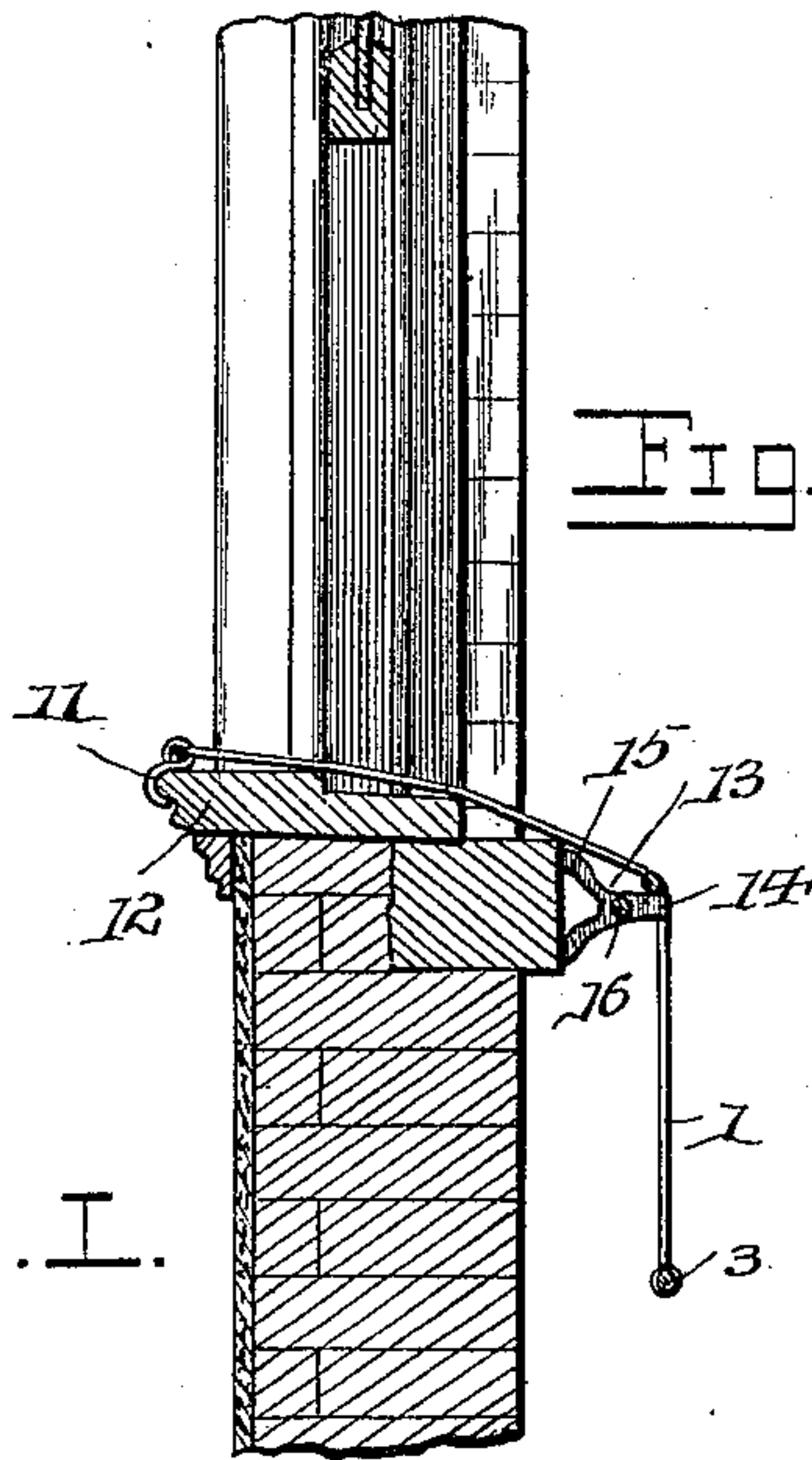


Fig. 2.

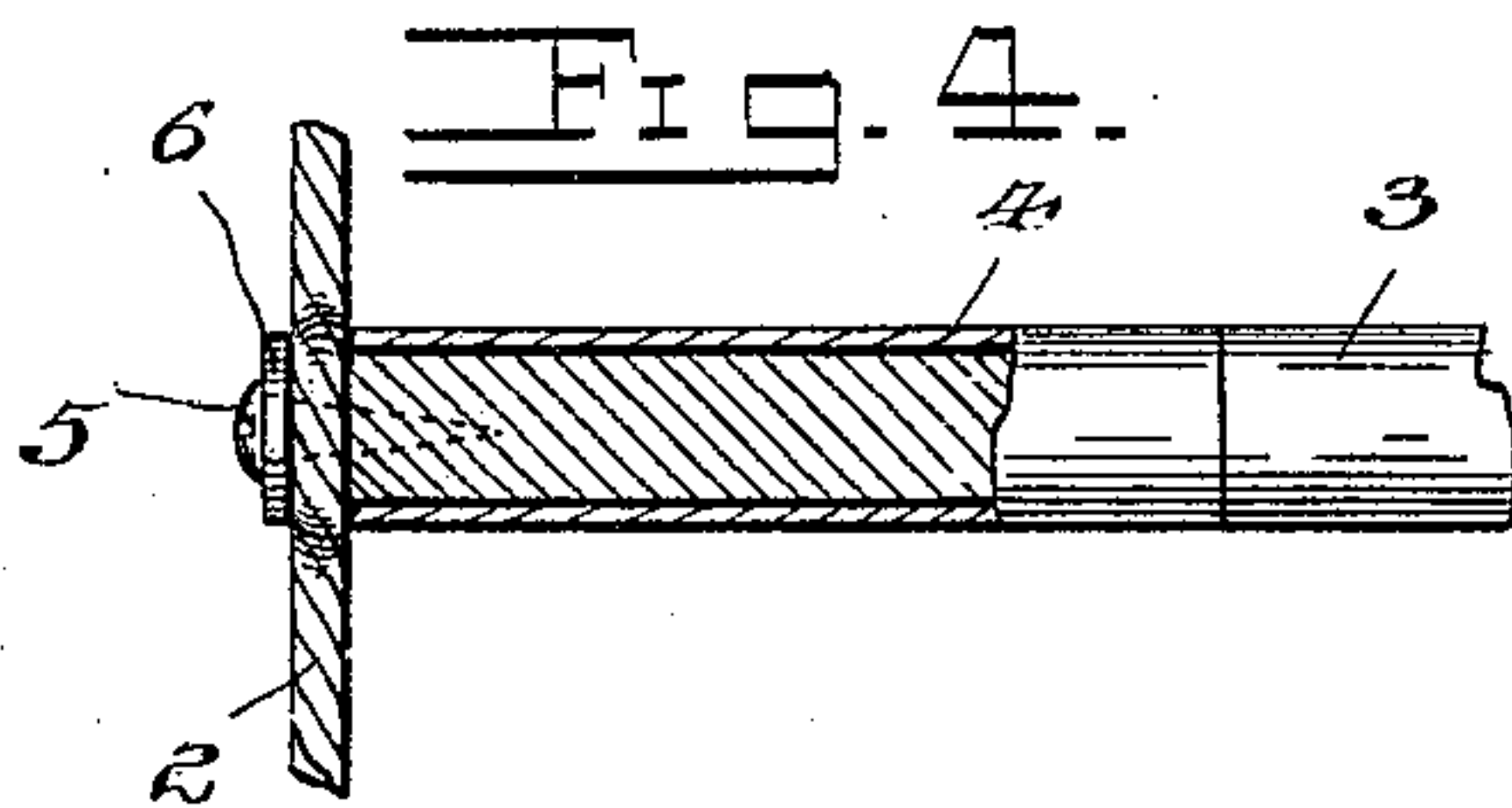


Fig. 3.

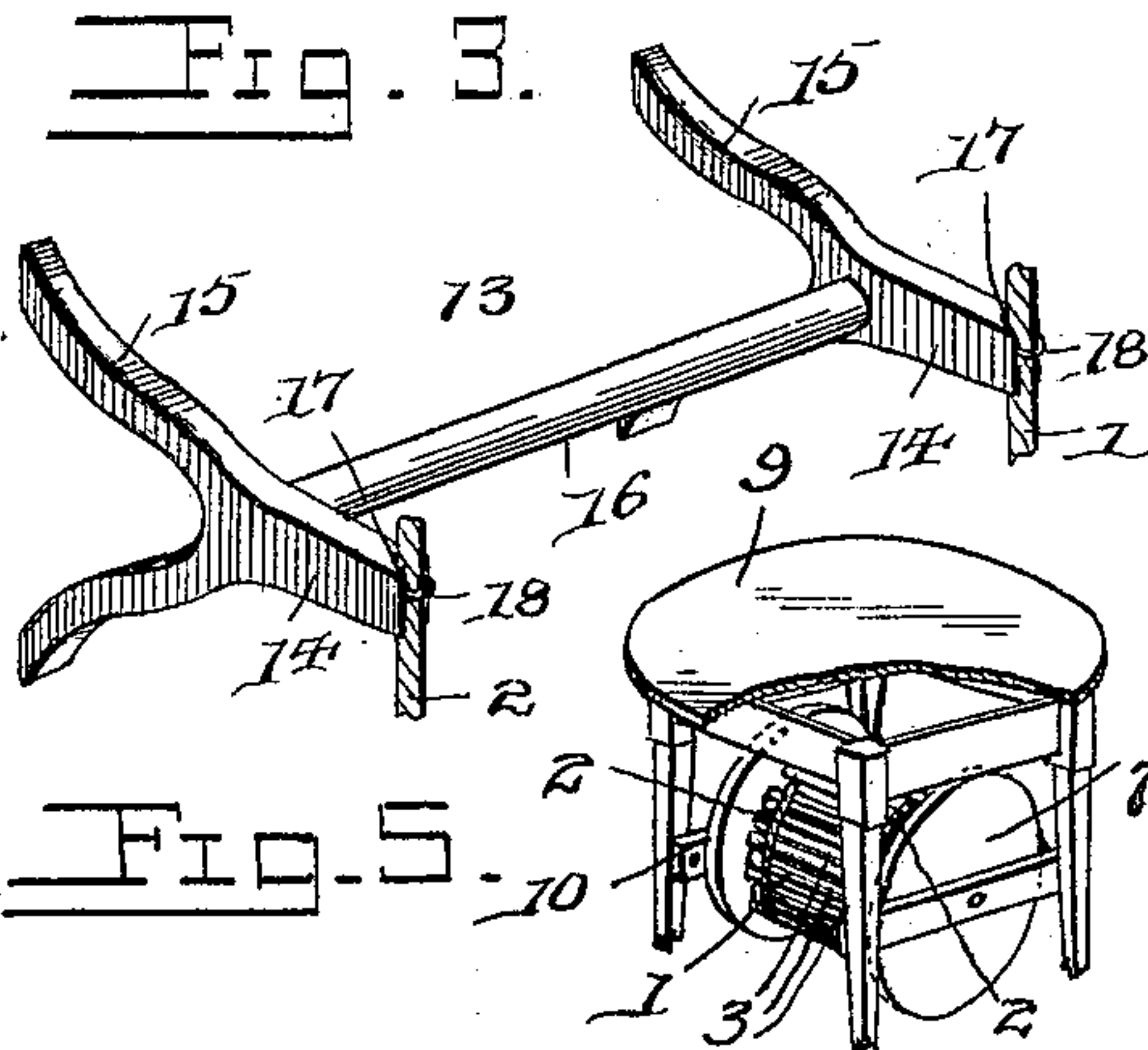


Fig. 4.

Philip C. Thirion, Inventor.

By his Attorneys,

Chas. H. Snow & Co.

Witnesses

F. C. Alden.

*[Signature]*



# UNITED STATES PATENT OFFICE.

PHILIP C. THIRION, OF MISSOULA, MONTANA.

## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 644,265, dated February 27, 1900.

Application filed November 10, 1899. Serial No. 736,501. (No model.)

*To all whom it may concern:*

Be it known that I, PHILIP C. THIRION, a citizen of the United States, residing at Missoula, in the county of Missoula and State of Montana, have invented a new and useful Fire-Escape, of which the following is a specification.

This invention relates to fire-escapes, and has for its object to provide an improved portable device comprising a flexible ladder which is normally rolled into compact form and is applied to a table or similar article of furniture, so as to be both ornamental and useful as well as being housed and protected. It is, furthermore, designed to mount the ladder so that it may be conveniently thrown out of a window, and thereby unwound as it descends to the ground, and the article of furniture then being at the lower end of the ladder will hold the latter taut, so as to prevent swinging thereof.

Another object is to provide means for anchoring the upper end of the ladder and also to space the ladder outward from the wall of a building, so as to facilitate the descent of persons seeking to escape from a burning building.

To these ends the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is an elevation of a portion of a building having the present invention suspended from one of the windows thereof and in its operative position. Fig. 2 is a detail sectional view taken transversely through the lower portion of the window and illustrating the manner of anchoring the upper end of the ladder and also the manner of spacing the ladder outward from the wall of the building. Fig. 3 is a detail perspective view of the spacing device. Fig. 4 is a detail sectional elevation taken through an end of of one of the rounds of the ladder. Fig. 5 is

a detail view illustrating the device when not in use.

Corresponding parts in the several figures of the drawings are designated by like characters of reference.

Referring to the accompanying drawings, 1 and 2 designate opposite parallel cables, preferably formed of wire, so as not to be burned by the flames of a fire, and supported between these cables is a plurality of regularly-spaced rounds 3, thereby forming a flexible ladder which may be conveniently wound into compact form.

It is preferable to form each round of wood, so as to provide a comparatively-light ladder, and each end of the round is protected by means of a metallic ferrule or sleeve 4. To connect each round to the respective cables, the latter are provided with knots or loops adjacent to the ends of the round and suitable screw-fastenings 5 are passed through the loops or knots and into the ends of the round. It is preferable to interpose a washer 6 between the head of each fastening and the adjacent side of the cable, so as to form a comparatively-broad bearing against the knot or loop. In some instances it may not be desirable to employ loops or knots in the cables, and in such an event the fastenings are passed between the strands of the cables, as will be understood. In order that the ladder may be normally maintained in compact form and out of the way, I employ a suitable drum 7, to which the lower end of the ladder is connected and upon which the ladder is wound. This drum is provided with opposite flanges or heads 8, between which the ladder is confined. To conceal and protect the ladder, I prefer to mount the drum upon a table 9 or other similar article of furniture, the drum being located immediately below the top of the table and journaled upon opposite cross-bars 10, carried by the legs thereof. It will thus be apparent that the table may be used in its ordinary capacity, and the fire-escape does not take up any extra room and also may be moved to any part of the room or the building.

The upper portions of the cables above the upper round of the ladder are converged, as shown in Fig. 1, and at the point of conver-



gence are provided with a suitable hook 11 for engagement with the inner edge of the window-sill 12, as best illustrated in Fig. 2.

At or immediately below the upper round 5 there is provided a spacing-bracket 13, comprising opposite heads 14, having divergent legs 15 and connected by means of a transverse bar 16. The outer end of each head is provided with a notch or groove 17 for the re- 10 ception of the respective cables, and the latter are fixedly connected to the heads by means of fastening devices 18, preferably in the form of substantially U-shaped staples, which embrace the respective cables.

15 In the operation of the device the hook end thereof is partially unwound from the drum and the hook 11 engaged with the inner edge of the window-sill, after which the table is thrown out of the window, thereby unwind- 20 ing the ladder as it descends to the ground. As shown in Fig. 2, the divergent legs of the bracket bear against the outside of the wall of the building, and as the respective cables pass across the outer ends of the heads of the 25 bracket the ladder is effectively spaced outward from the wall of the building. Also the weight of the table and drum will prevent the ladder swinging during the descent of the person on the ladder.

30 What I claim is—

1. In a fire-escape, the combination with an article of furniture, of a reel mounted there-

on, a flexible ladder having its lower end connected to the reel, and an anchoring device 35 applied to the opposite upper end of the ladder, the article of furniture forming a weight at the lower end of the ladder, when said ladder is in use.

2. In a fire-escape, the combination with an article of furniture, having legs, and opposite 40 cross-bars carried by the legs, of a reel, having its opposite ends journaled in the respective cross-bars, a flexible ladder, having its lower end connected to the reel, and an anchoring-hook provided at the opposite upper end 45 of the ladder, the table forming a weight at the lower end of the ladder when the fire-escape is in use.

3. A flexible ladder, comprising opposite ca- 50 bles, rounds having their inner ends fitting against the inner sides of the respective cables, ferrules fitted to the respective ends of the rounds, and headed fastening devices passing transversely through the respective 55 cables and longitudinally into the adjacent ends of the rounds.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

PHILIP C. THIRION.

Witnesses:

WALLACE P. SMITH,  
CHARLIE E. MUZZIR.