

No. 649,458.

Patented May 15, 1900.

C. A. IVES.  
FIRE ESCAPE.

(Application filed Mar. 1, 1900.)

(No Model.)

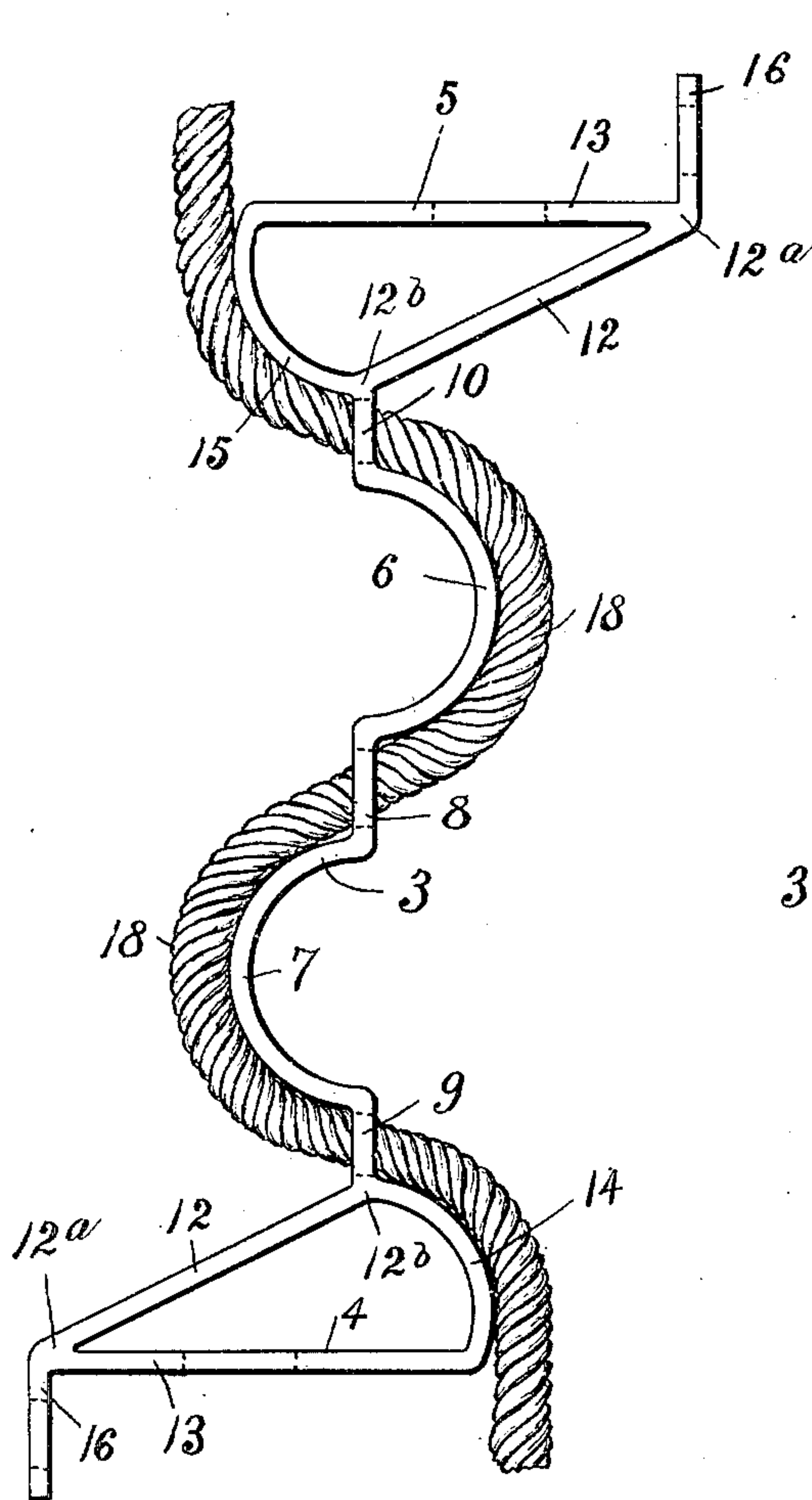


FIG. 1

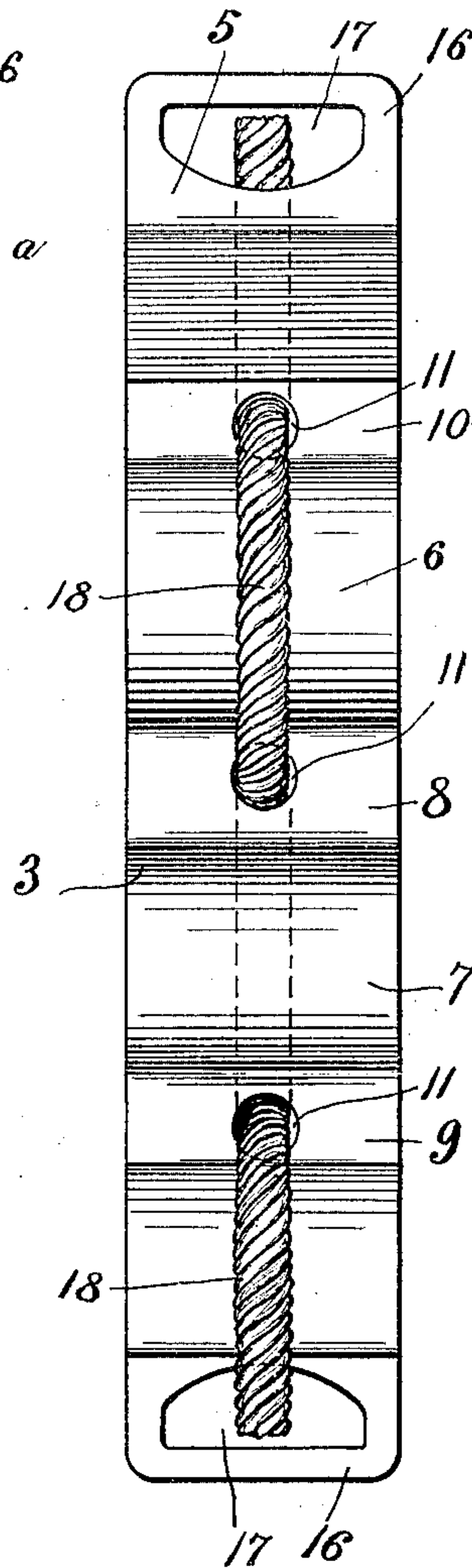


FIG. 2

WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 649,458, dated May 15, 1900.

Application filed March 1, 1900. Serial No. 6,925. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES A. IVES, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to fire-escapes; and the object thereof is to provide an improved fire-escape member which operates slidably in connection with a rope or other flexible suspension device.

My invention consists in the novel construction and arrangement of parts hereinafter specified.

In the accompanying drawings, forming part of this specification, in which like reference characters denote corresponding parts in both views, Figure 1 is an edge view of a fire-escape member constructed according to my invention and operatively connected with a rope, and Fig. 2 a face view thereof.

In the practice of my invention I provide a slidable fire-escape member comprising a plate denoted by the general reference character 3 and two carriers, respectively 4 and 5, connected with the respective ends thereof. The plate 3 embodies two oppositely-curved portions 6 and 7, connected at their adjacent ends by a straight web 8. The other ends of the curved portions 6 and 7 are respectively merged into straight webs 9 and 10, which lie in the same longitudinal plane as the web 8. The webs 8, 9, and 10 are provided each with a central transverse opening 11. Connected with each of the webs 9 and 10 is a carrier, respectively 4 and 5, which carriers have above been referred to and which are oppositely directed, as clearly shown in Fig. 1. Each of the carriers comprises a pair of plates 12 and 13, which are angularly connected together at 12<sup>a</sup> at an end of each, and one of which, 12, is connected at one end with the next adjacent web 9 or 10 at 12<sup>b</sup>. One end of each of the plates 13 is connected with the adjacent web 9 or 10 at the point 12<sup>b</sup> by means of a curved plate, respectively 14 and 15, which plates may, if desired, constitute integral extensions of the plate 3, and said plates 14 and 15 are respectively curved

oppositely to the curved portions 7 and 6 of the plate 3 lying at opposite sides of the longitudinal plane passing through the webs 8, 9, and 10. Each of the carriers 4 and 5 is provided with a suspension member 16, having a transverse opening 17, with which a sling or other suspension device may be connected.

The rope 18 is passed through the openings 11 in the webs 8, 9, and 10 and is passed about the convex surfaces of the curved portions 6 and 7 of the plate 3 and the convex surfaces of the curved plates 14 and 15, as most clearly shown in Fig. 1, and in practice one end of the rope 18 is secured at an eminence from which it is desired to lower an object or a person.

The object or person to be lowered is connected with one of the carriers 4 or 5, whichever is lowermost, by means of the suspension-plate 16 thereof. It is manifest that the said carriers project from the plate 3 at opposite sides of the longitudinal plane passing through the webs 8, 9, and 10 thereof, whereby whichever of said carriers supports the load and is in lowermost position the longitudinal plane passing through the webs 8, 9, and 10 is thrown out of parallelism with the rope 18 above the curved plate 14 or 15. If a person be descending by means of the fire-escape, he grasps the rope 18 beneath the curved plate 14 and endeavors to restore such parallelism, which action imposes an increased friction upon the curved portions 6 and 7 of the plate 3 and upon the plates 14 and 15, tending to lessen the speed of descent of the load. The construction and relative arrangement of parts are such that the rope 18 engages only the curved surfaces of the portions 6 and 7 of the plate 3 and of the curved plates 14 and 15. The normal friction of the rope upon the said curved surfaces is ordinarily sufficient to cause a gradual descent of a load imposed upon one of the carriers; but if the rope be grasped beneath the lower carrier, as above described, and subjected to strain the friction is obviously increased and the speed of descent is appreciably decreased.

By providing a carrier for each end of the plate 3 I make the entire device reversible, whereby when the slidable member above described has descended upon the rope the lower end of the latter may be substituted for the



upper end and a further descent effected without sliding the slidable member back to its initial position upon the rope.

5 I do not limit myself to the specific construction and arrangement of parts herein specified, but reserve the right to vary the same within the scope of my invention.

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

15 The herein-described slidable fire-escape member adapted to operate in connection with a flexible suspension device, and comprising a body-plate embodying a plurality of oppositely-curved portions, webs by which said curved portions are connected, and having openings through which said flexible suspension device is passed, a carrier connected with each end of said body-plate, said carriers be-

ing oppositely directed and each comprising a 20 pair of relatively angularly connected plates from the point of divergence of which the load is adapted to be suspended, and two supplemental curved plates, each connected at one end one with the lower and the other with the 25 upper end of said body-plate, and at the other end with one of the plates of which one of said carriers is composed, substantially as shown and described.

30 In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 27th day of February, 1900.

CHARLES A. IVES.

Witnesses:

F. A. STEWART,  
V. M. VOSLER.