

No. 644,418.

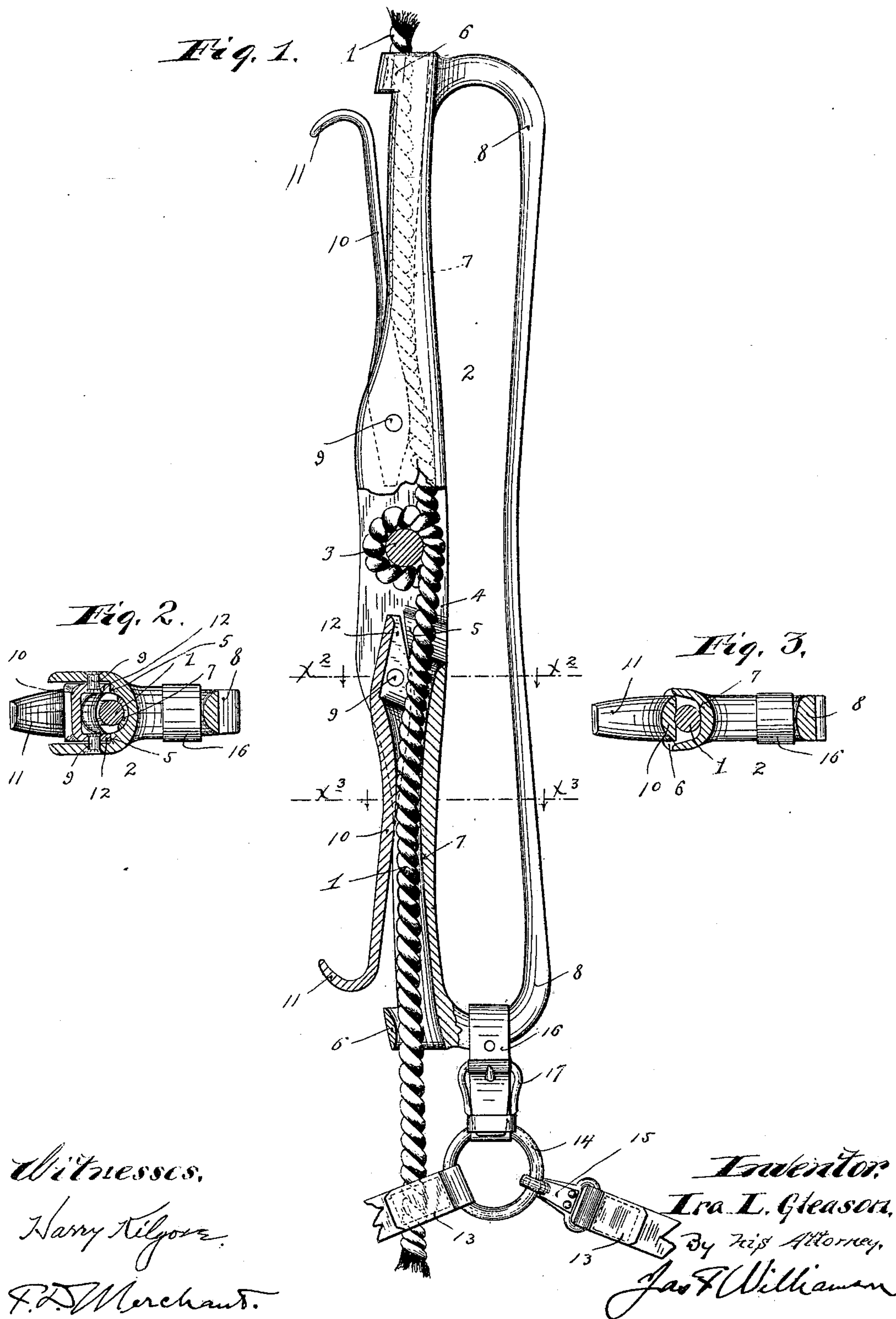
Patented Feb. 27, 1900.

I. L. GLEASON.

FIRE ESCAPE.

(Application filed May 31, 1899.)

(No Model.)



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UNITED STATES PATENT OFFICE.

IRA L. GLEASON, OF HUTCHINSON, MINNESOTA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 644,418, dated February 27, 1900.

Application filed May 31, 1899. Serial No. 718,804. (No model.)

To all whom it may concern:

Be it known that I, IRA L. GLEASON, a citizen of the United States, residing at Hutchinson, in the county of McLeod and State of Minnesota, 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 of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide an improved fire-escape of simplified and improved construction; and to this end it consists of the novel devices and combinations of devices hereinafter described, and defined in the claim.

The invention is in the nature of what may be well characterized as a "rope-grip" or "friction-brake" fire-escape, inasmuch as it involves a rope or similar suspended connection and a traveler or carrier movable over the same and provided with means for frictionally clamping the rope to properly control the speed of descent of the person descending.

The invention in its preferred form is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a view, principally in side elevation, but with some parts broken away and others sectioned, showing my improved fire-escape as preferably constructed. Fig. 2 is a transverse section taken on the line $x^2 x^2$ of Fig. 1, and Fig. 3 is a transverse section taken on the line $x^3 x^3$ of Fig. 1.

The numeral 1 indicates a rope which is to be used to support the person descending by means of the fire-escape. This rope will be suitably secured at its upper end in a manner to be hereinafter more particularly considered.

The body of the carrier or traveler is in the form of a quite-long channel-piece, (indicated as an entirety by the numeral 2.) Secured between the sides and approximately at the center of the channel-piece 2 is a stud or friction-pin 3, and the back of the said channel-piece 2 is preferably cut away in the vicinity of said stud 3, as indicated by the numeral 4. On each side of the stud 3 the sides of the channel-piece 2 are formed with longitudinally-

extended stop-shoulders 5 for a purpose which will presently appear.

The rope 1 is given at least one wrap around the friction-stud 3, and its ends are passed in opposite directions one through each of the guide loops or eyes 6 at the ends of the carrier 2. Between the eyes or loops 6 and the stud 3 the rope is adapted to be pressed into frictional engagements with the back wall of the carrier 2 or against the surfaces indicated at 7. Extending from end to end and from the back of the carrier or traveler 2 is a long bail or handle 8.

Pivoted between the sides of the traveler or carrier 2 on hinged pins or rivets 9 is a pair of brake-levers or clamps 10, the outwardly-projecting ends of which cooperate with the adjacent surfaces 7 of the traveler 2 to pinch the rope when gripped by the hand of the operator. The extreme outer ends of the clamping-levers 10 are hooked or bent, as indicated at 11, to enable the operator to obtain a more secure grip on the so-called "traveler." The inwardly-projected ends of the levers 10 are provided with stop-flanges 12, which cooperate with the adjacent stop flanges or lugs 5, heretofore noted as being located on the side flanges of the carrier or traveler 2, and thus serve to limit the opening or outward movements of the said clamping-levers.

The numeral 13 indicates a body-strap which is provided at one end with a large ring 14 and at its other end with a spring snap or hook 15. The ring 14 is secured to the handle or yoke 8 of the traveler or carrier 2 by means of a short strap and buckle 16 17 or by some other suitable device which will permit it to freely slide from one end to the other of the said handle or yoke.

The use and operation of the device will now be considered.

The device may be used in a great many different ways. In its ordinary use the upper end of the rope 1 would be suitably secured to the building at or in the vicinity of the window through which the escape is to be made, and the person desiring to use the device will first secure the strap 13 around his body, usually just below his arms, and will then take hold of the lower portion of the traveler or carrier 2 and the lower member of

the pair of brake-levers 10. By pinching or pressing the rope by means of the depending brake-lever 10 the person using the fire-escape may very easily regulate the speed at which he will descend the rope. As the body is suspended by means of the strap 13, the arm and hand used to operate the brake-lever are relieved of all strains, except those necessary to operate the said brake-lever. With the rope wrapped around the friction-stud 3 no great amount of friction is necessarily put upon the rope by the friction brake or lever.

The double-ended arrangement of the device adapts it to run over the rope as well in one direction as the other. This feature is very desirable in a great many instances. Suppose, for example, one of several persons at a window has descended by means of the fire-escape, in which case the traveler or carrier will be at the lower end of the rope. With this double-ended construction it is only necessary to draw up the rope, attach the end previously lowered to a suitable support, and throw the end previously secured out of the window. The device may then be used other end to and run in the opposite direction over the rope.

It will of course be understood that the device above described may be used in a great many other ways.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

The combination with a rope or other flexible connection, of the traveler 2 having the stud 3 about which the rope is turned, and provided with suitable guide-channels for the rope, including the eyes 6, the pair of brake-levers 10 pivoted to the traveler on opposite sides of the stud 3, the bail 8 connecting the opposite ends of the traveler, and the body sling or strap secured to the bail 8, the brake-levers 10 being so disposed that they may be gripped by the hand, the fingers of which are passed through the opening formed between the body of the traveler and the said bail 8 all for co-operation substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

IRA L. GLEASON.

Witnesses:

M. W. CLOY,
C. G. ODQUIST.