No. 848,235. PATENTED MAR. 26, 1907.

C. L. GARLAND, G. PROUDFOOT & M. BOWEN.

FIRE ESCAPE.

APPLICATION FILED JULY 3, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

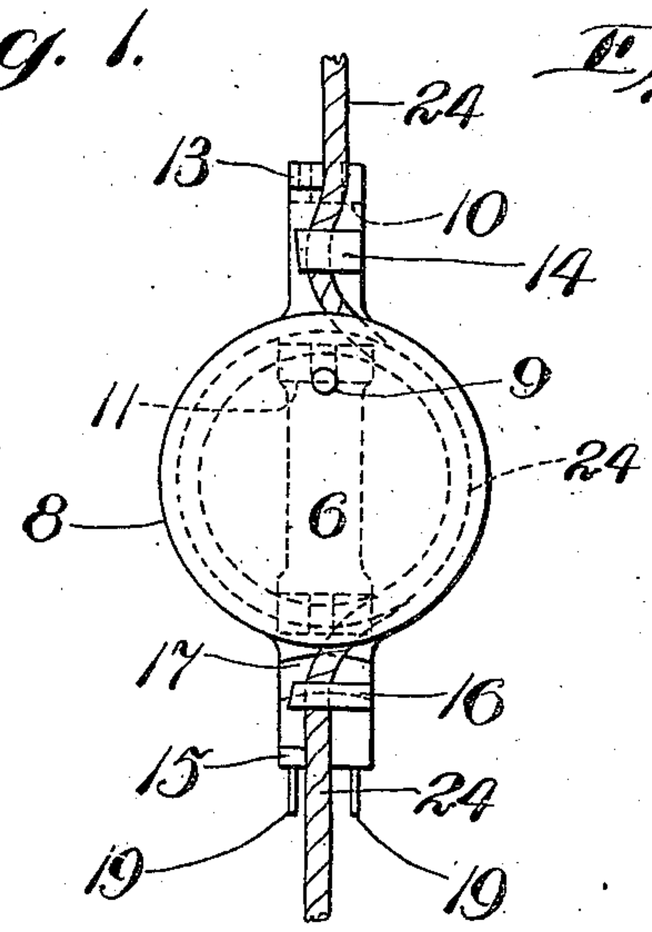


Fig. 2.

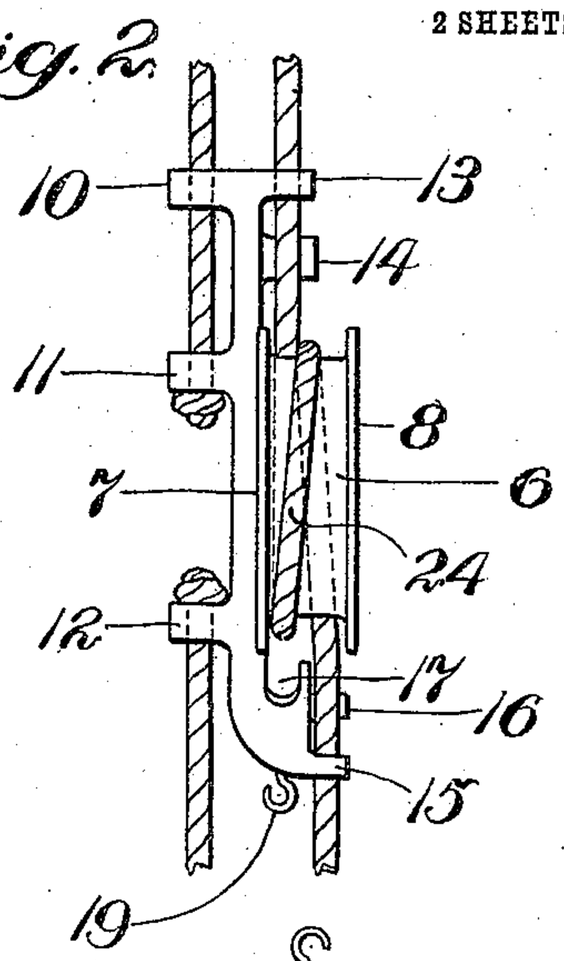


Fig. 3.

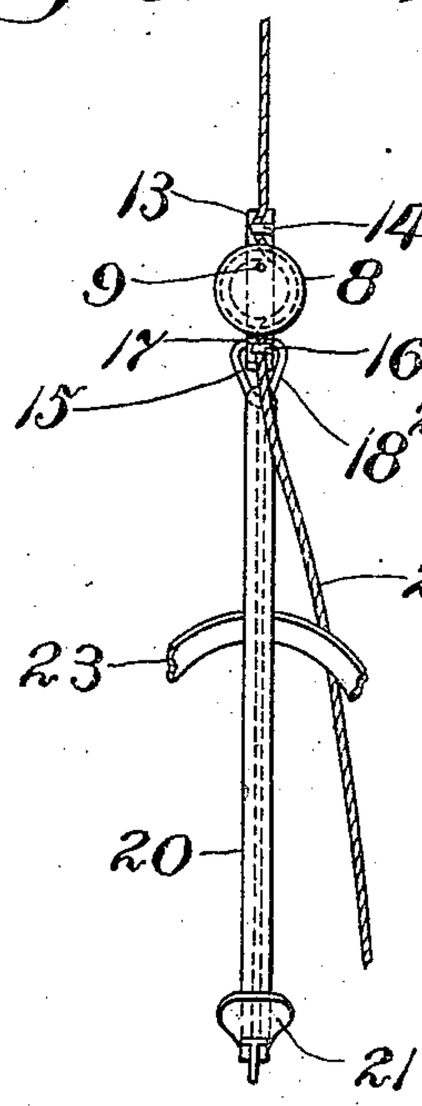


Fig. 4.

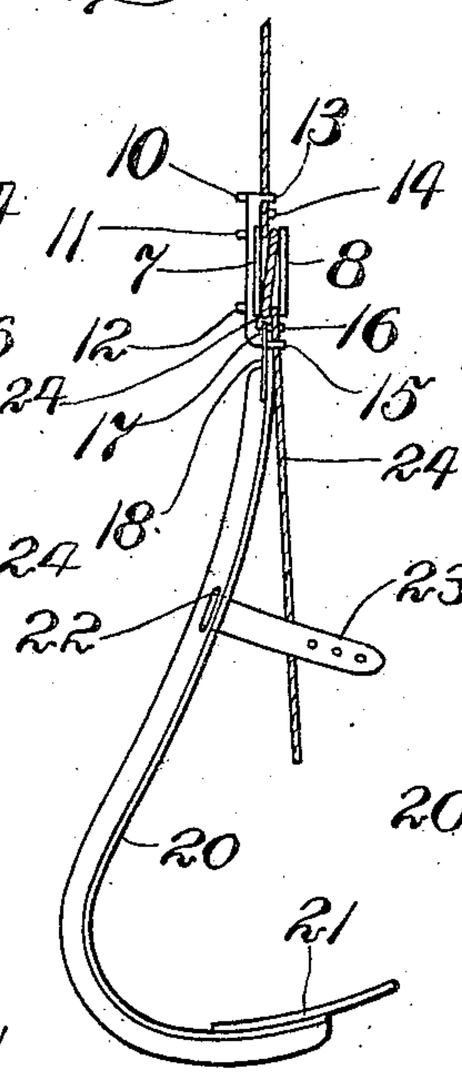
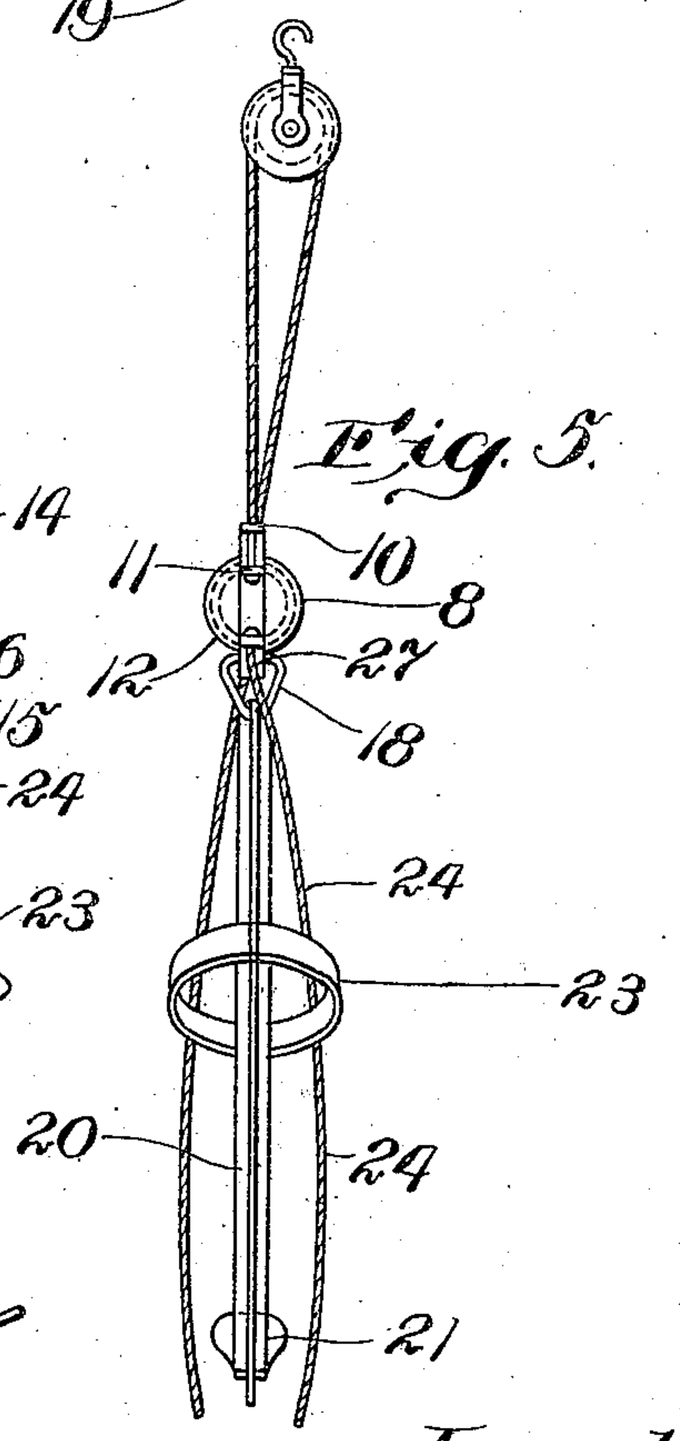


Fig. 5.



Witnesses:
R. A. Dugan
Iva L. Fish

Inventors
Charles L. Garland
George Proudfoot
By Marion Bowen
Geo. N. Goddard
Attorney.

No. 848,235. PATENTED MAR. 26, 1907.

C. L. GARLAND, G. PROUDFOOT & M. BOWEN.

FIRE ESCAPE.

APPLICATION FILED JULY 3, 1905.

2 SHEETS—SHEET 2.

Fig. 6.

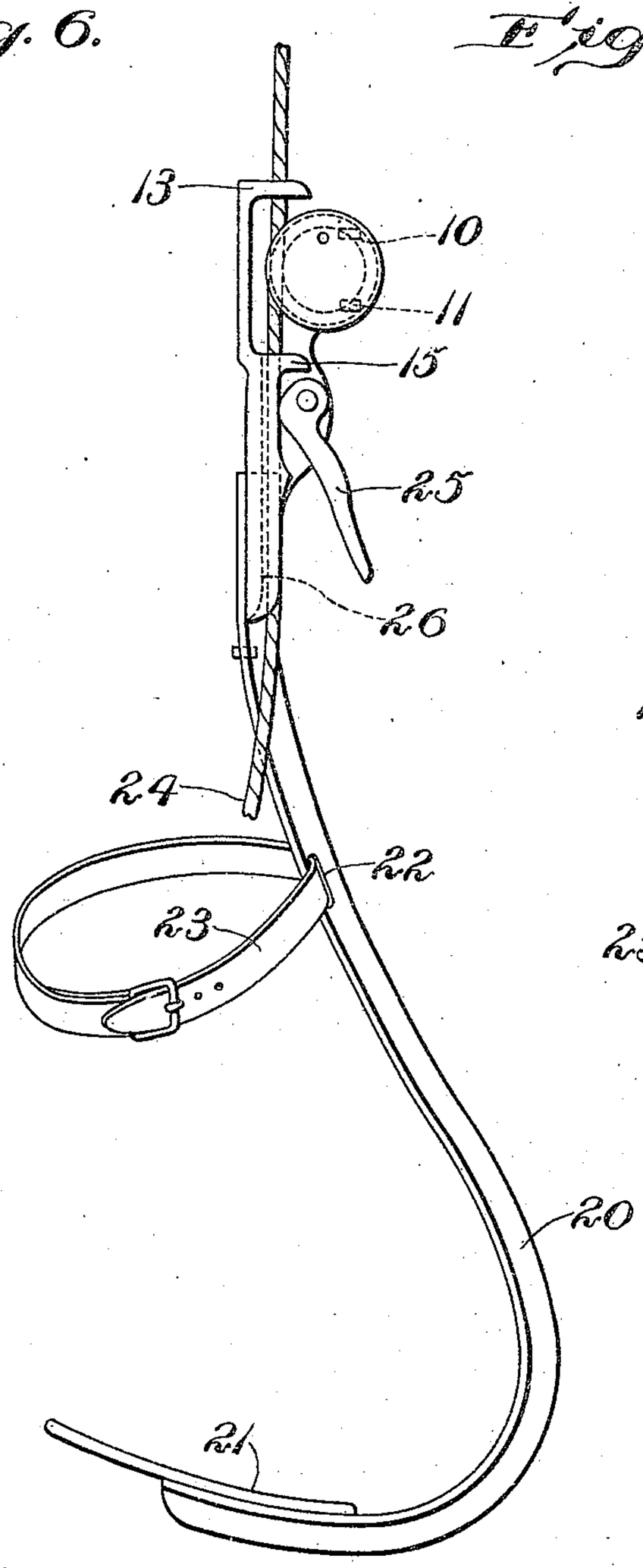
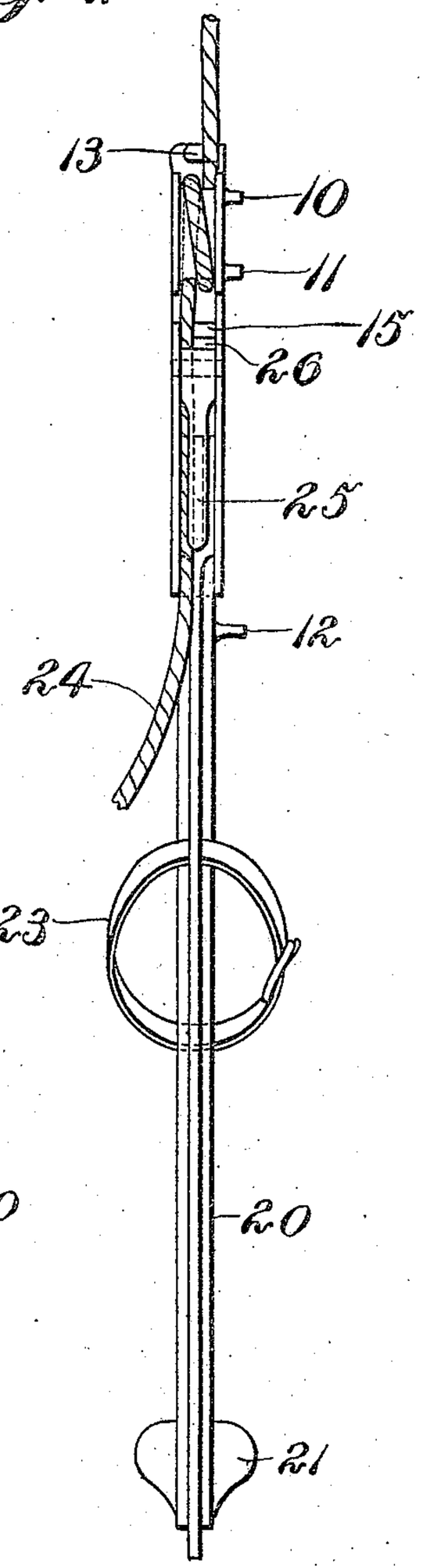


Fig. 7.



Witnesses:
F. A. Dugan
Ira L. Fish

Inventors
Charles L. Garland
George Proudfoot
Marion Bowen
by Geo. N. Goddard
Attorney.

UNITED STATES PATENT OFFICE.

CHARLES LAUNCELOT GARLAND, OF SYDNEY, AND GEORGE PROUDFOOT AND MARION BOWEN, OF BALMAIN, NEAR SYDNEY, NEW SOUTH WALES, AUSTRALIA, ASSIGNORS TO THE EMPIRE INVENTIONS COMPANY LIMITED, OF SYDNEY, NEW SOUTH WALES, AUSTRALIA.

FIRE-ESCAPE.

No. 848,235. Specification of Letters Patent. Patented March 26, 1907.

Application filed July 3, 1905. Serial No. 268,191.

To all whom it may concern:

Be it known that we, CHARLES LAUNCELOT GARLAND, of No. 154 Phillip street, Sydney, in the State of New South Wales and Commonwealth of Australia, mining-dredge proprietor, and GEORGE PROUDFOOT, railway contractor, and MARION BOWEN, married woman, both of No. 13 Montague street, Balmain, near Sydney, aforesaid, have invented an Improved Fire-Escape, of which the following is a specification.

This invention relates to those contrivances known as "fire-escapes" whereby a person may lower himself or be lowered from a building or elevation by reason of a frictional hold with or without the addition of a brake upon a cord or rope forming part of such contrivance.

This invention has been specially devised to produce an effective contrivance for the purpose which will enable a safe and well-regulated descent to be made and in some cases the return of the "escape" to the elevated position again. A comfortable and secure support or seat is made available to the passenger, while the speed of the descent may be controlled by the passenger or by a person on the ground; but in order that this invention may be clearly understood reference will now be made to the drawings herewith, in which—

Figure 1 is a front elevation, and Fig. 2 a side elevation, of this improved fire-escape with the pendent body-support or saddle removed. Figs. 3 and 4 are front and side views of the escape in use on a pendent life-line or steel rope. Fig. 5 is a front view of the same in use on a running life-line or steel rope reeved through a pulley or sheave at the top of a building. Fig. 6 is a side elevation, and Fig. 7 a front view, of a modified construction of this improved fire-escape wherein there is a brake and wherein the body-support is a fixture.

The escape or frictional block or running-piece consists of a hollow drum or sheave 6, having inner and outer flanges 7 and 8. Through an orifice 9 in the front or outer face water or oil or other cooling liquid may be fed, and thereon may be placed a cap or seal. This will prevent or retard the heating of the running-piece in its descent on the life-line or steel rope. Through holes in the lugs 10 and 11 the ends of the life-line are passed and knotted, while an additional lug 12 provides a similar hold for the other end of the rope. In the one case these lugs are on the back of the running-piece, while in the modification they are on one side. At top and bottom of the drum 6 the back extends outwardly from the center, and in the first construction the former extension has hook-piece 13 and a snub 14, while the lower has a corresponding hook-piece 15 and a snub 16, these hooks and snubs being relatively inner and outer of the edge of the drum or sheave, and these hooks and snubs enable the life-line or wire to be quickly placed in working position under the hook 13 and against the upper snub 14, with a turn or two around the drum 6, against the snub 16, and under the hook 15. The lower extension-piece is formed behind the hook 15 and snub 16 as a hook 17 itself, so that the saddle or support will hang therein by a link or eye 18 or the like and be prevented from disengagement not only by the hook form, but positively by the life-line or wire passing outside of the link. On the bottom of this hook 17 are eyes or hooks 19, on which may be hung, so as to be convenient in use, handles or gloves or frictional grippers for easing the hands in controlling the descent.

In another construction or modification the upper extension has a guide 13 instead of a hook, while the lower extension has a similar guide 15. Lower than this guide 15 is a pivoted lever 25, whose inner face takes over a channel or groove 26, formed in the lower extension of the drum. The passenger support or seat constructed as hereinafter described is riveted or permanently affixed to said lower extension of the drum. In this construction the escape is permanently placed upon the life-line 24 and cannot be separated therefrom, the said life-line being coiled and stored and affixed to overhead contrivances, as hereinafter described. The life-line 24 is passed through groove or channel 26 under the lever 25, thence through guide 15 around the drum 6, and through the guide 13 to the supporting-fixture or a sheave or pulley.

The support for the passenger is constructed of T-steel or hook shape, as shown, so that the average individual will straddle it and sit

perpendicularly, with his center of gravity fairly under the life-line. The end of the hook 20 is a saddle 21, on which the person sits straddled, and a slot 22 is provided in the web of the structure for the passing through of a strap or belt 23 to be buckled around the upper part of the body.

In use, as depicted in Figs. 3 and 4, one end of the life-line 24 is permanently affixed to a bracket or the like in the room of a building, but preferably outside, or the end may have a cringle or other device by which it may be quickly attached or affixed to any permanent part of a room or building or some structure therein or thereon which will hold the weight of the person desiring to descend. This life-line is preferably coiled upon a reel, so that it will pass freely downward without entanglement on being thrown out of the window. The escape is reeved on the life-line or wire, as before set forth, and by frictional contact held in position by hanging or pulling on the wire below it. The saddle or support 21 is placed in position by putting link 18 in hook 17 behind the life-line 24, and all is ready for descent. The user seats himself astride the saddle 21, grasping the line with his hands. Obviously the stronger the pull exerted by the hands the greater will be the check or resistance to his descent. In this way by shifting a portion of his weight from his hands to the saddle, or vice versa, the rapidity of the descent may be regulated. At the same time the legs of the passenger are in convenient position to keep him from twirling by taking bearing against the wall of the building and for guiding him past obstacles in the shape of cornices or other structural ornamentations. When using the modification shown in Figs. 5 and 6, the passenger has a further control of the rate of descent, for by pressing lever 25 into the groove 26 he is able to apply an effective brake on the sliding of the escape or running-piece on the life-line.

As depicted in Fig. 5, the life-line 24 is a running one, with its end 27 attached to the lugs 10 and 11 of the drum and its bight reeved through a pulley or sheave adapted to be permanently fixed to a bracket on the building or structure or to be quickly hung thereon or to any other convenient fastening. In this case the line is doubled, since both ends are carried back and knotted to the bracket, while the middle portion is wound around the reel. The engaging of the running-piece, the seating in the saddle, and the descent to the ground are all achieved as hereinbefore described. In this case, however, the descent is made slower, and as well persons on the ground may be disengaging the escape or running-piece and hoist it again to the elevated position for further use.

This improved fire-escape may be carried about by persons as part of their baggage, and so be handy in whatever rooms they may use in traveling. It may, however, and preferably should, be part of the furniture of every upper room in buildings, particularly high buildings, with cards of directions for use exhibited prominently. Where it is part of the furniture of a building, various devices may be provided for the attachment of the life-line or its pulley or sheave.

Having now fully described and ascertained the said invention and in what manner the same is to be performed, we declare that what we claim is—

1. A device of the class described embracing in its construction a traveler-frame, a supporting-rope therefor, said traveler-frame being provided with means for securing the two ends of said rope to itself, said traveler-frame having snubbing-lugs disposed on opposite sides of the rope to deflect the rope from a straight line, a sheave secured to the frame beneath said snubbing-lugs and provided with a runway for the rope, a retarding device for engaging that portion of the rope beneath the sheave, and a curved saddle-bar secured to the lower end of the traveler-frame for supporting the person of the operator, substantially as described.

2. A device of the class described embracing in its construction a traveler-frame constructed to travel upon a supporting-rope, a rope for supporting the same, said traveler-frame being provided with a sheave having a peripheral runway for the rope, retarding devices for engaging the rope disposed both above and below said sheave, the lower end of said frame being provided with an upturned hook disposed below the sheave and between the depending rope and the back of the frame, a carrier device comprising a bar bent to form a saddle for the support of the operator, said carrier device being provided with means for engaging said hook between the depending rope and the traveler-frame, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CHARLES LAUNCELOT GARLAND.
GEORGE PROUDFOOT.
MARION BOWEN.

Witnesses:
PERCY NEWELL,
M. J. CANDRICK.