J. J. VAN WIE.

FIRE-ESCAPES.

No. 194,507. Patented Aug. 21, 1877.

Fig 1.

Fig 2.

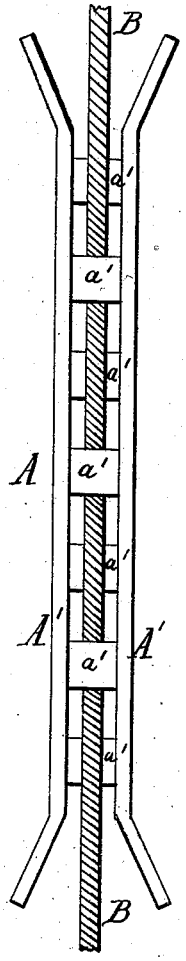


Fig 3.

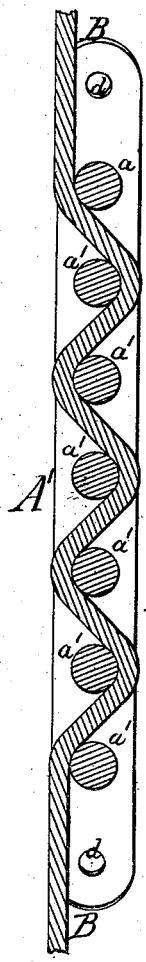
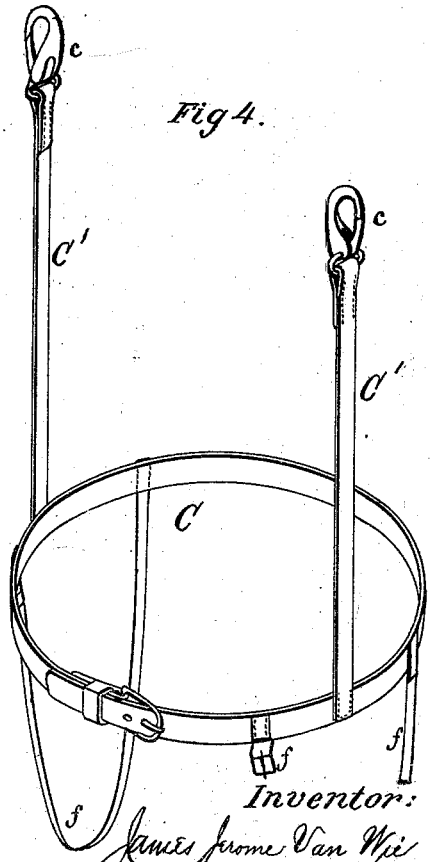


Fig 4.



Witnesses:
James Martin Jr
John L. Condron

Inventor:
James Jerome Van Wie
by
Mason, Fenwick & Lawrence

UNITED STATES PATENT OFFICE.

JAMES JEROME VAN WIE, OF DUBUQUE, IOWA, ASSIGNOR TO HIMSELF, WILLIAM P. ALLEN, AND GEORGE A. FIFIELD, OF SAME PLACE.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **194,507**, dated August 21, 1877; application filed June 14, 1877.

To all whom it may concern:

Be it known that I, JAMES JEROME VAN WIE, of the city and county of Dubuque, and State of Iowa, have invented a new and useful Improvement in Fire-Escapes, which improvement is fully set forth in the following specification and accompanying drawings, in which latter—

Figure 1 is an illustration of the operation of my improved fire-escape, showing the manner in which a man descends upon it. Fig. 2 is an enlarged front elevation of the friction-slide, to which the weight of the man is attached. Fig. 3 is a longitudinal central section of the same; and Fig. 4 is a waist-strap with suspenders, the means whereby the body is attached to the said friction-slide.

The nature of my invention consists in certain constructions, combinations, and arrangements of parts, hereinafter fully described and specifically claimed, whereby a reversible fire-escape is produced, which may very readily be fastened for use, and which, by reversing it, may be repeatedly used; which also, on account of its simple construction, is not liable to get out of order, and the descent of which may be easily regulated by the operator by using his own hand as a friction-brake.

In the drawings, A represents a reversible friction-slide, consisting of two flat side bars, A′, having at each end an eye, *d*, and united by a number of short stout cross-rods, *a′*, as seen in Figs. 2 and 3. The eyes *d* are arranged in pairs, which project outwardly from the slide on each of the bars A′, as shown, so that the end of the slide which happens to be turned down always has a serviceable eye at each side of the friction-slide.

A rope, B, of suitable size and strength, is laced through the intervals between the short rods *a′*, as shown in Fig. 3. The resistance offered by the rope to the many short bends created by the said lacing, and the resistance of the friction between the said rope and the rods *a′*, when the slide A is moved upon the rope, together serve to allow a safe, though speedy, descent of the slide A with a man of average weight attached, which, however, may be retarded at will by applying the hand to the rope as a friction-brake.

To facilitate the attachment of the body of a person to the slide A, and to make such attachment more reliable, a belt, C, is buckled around the waist, and by means of suspenders C′, with snaps *c*, is hooked to the lower eyes *d* of the slide A.

The suspending-belt C and the slide A, with the rope B, are kept in the room from which the descent is intended to be effected in case of danger, and if it be a bed-room, they should be under or near the bedstead, in as handy a position as possible.

When the escape by stairway or elevator is cut off by fire, the person so threatened fastens the belt C around his waist, with the straps *f* in the crotch of his legs, as in Fig. 1, and securely attaches the short end of the rope to a bedstead, or to such suitable fixture as may be found in the room, and throws the long end of the rope out the window. He then hooks the snaps *c* in the eyes *d*, steps out of the window, and suspends himself upon the slide A. He immediately begins to descend, and by taking a loose hold on the rope B below the slide A, he will keep his body in upright position. If the descent be too rapid, the other hand, or both hands, may take a tolerably firm hold on the rope, thus only allowing the slide A to move down with the desired speed.

When one person has safely arrived on the ground, and divested himself of the belt C, another person in the burning building may immediately pull up the rope, unfasten the end which was tied, and throw it out of the window, and fasten the end he has pulled up, (with the slide A and belt C,) and in a suitable manner tie the belt around him, and descend in the same manner as the first person, with the only difference that the slide A is now reversed, so that he suspends himself on the opposite pair of eyes *d*.

To facilitate the fastening of the rope B it may be provided at each end with a hook or a ring, or both, so that an instantaneous attachment of the rope to any suitable fixture within the room or building may be effected.

It is advisable for every person who desires to use my invention to practice with it, and according to his weight use either all the rods

a' as rope-deflectors and friction-brakes, or omit as many of them as necessary to insure his safe yet speedy descent. This accomplished, the apparatus is ready for his use, and may be kept so in a convenient place until danger calls for its application.

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

The reversible fire-escape, adapted for being fitted upon a single rope, and consisting of two side pieces, which are rigidly fastened together by separated round bars, and having their upper and lower ends bent outwardly, and perforated, all in the manner and for the purpose herein described.

Witness my hand in the matter of my application for a patent for a fire-escape ladder this 9th day of June, A. D. 1877.

JAMES JEROME VAN WIE.

Witnesses:
W. K. BROWN,
E. B. LEWIS.