J. E. WILDBORE.
Fire-Escape.

No. 203,687. Patented May 14, 1878.

Fig. 1.

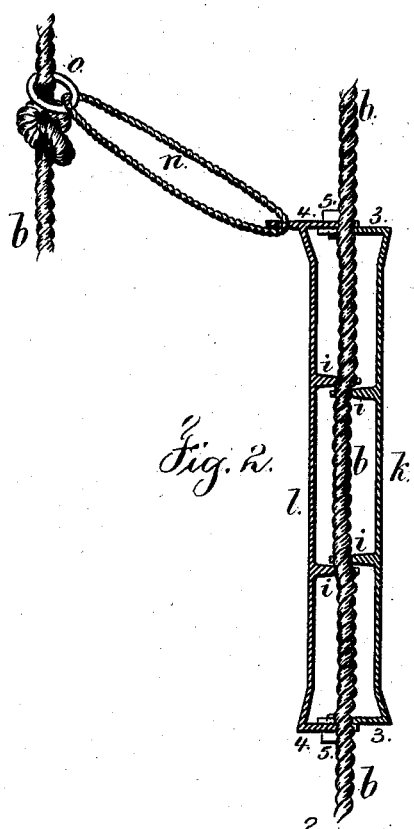

Fig. 2.

Fig. 3.

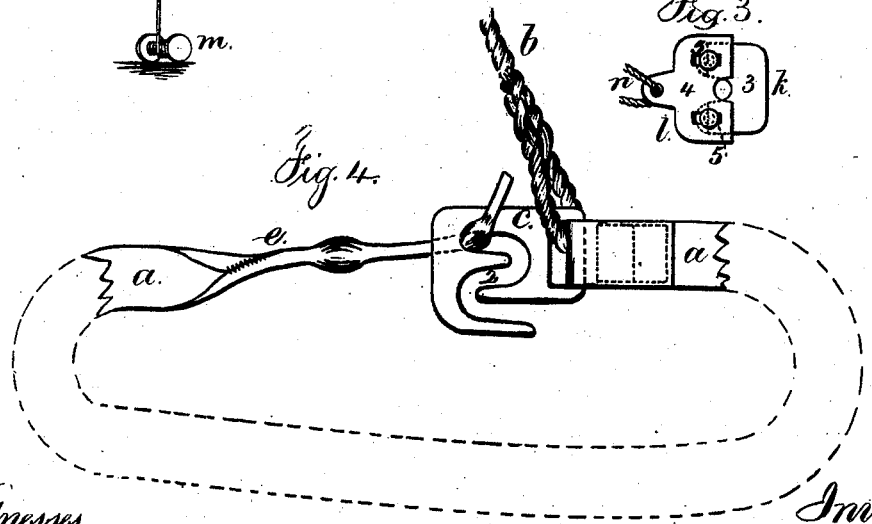

Fig. 4.

Witnesses

Chas H. Smith
Geo. T. Pinckney

Inventor

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UNITED STATES PATENT OFFICE.

JOSEPH E. WILDBORE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **203,687**, dated May 14, 1878; application filed February 4, 1878.

To all whom it may concern:

Be it known that I, JOSEPH E. WILDBORE, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Fire-Escapes, of which the following is a specification:

In my improved fire-escape a belt is provided for passing around beneath the arms. From this a rope passes up and over a pulley at the cornice of the building, and descends of a sufficient length to reach the ground. Upon the descending-rope is a friction-clasp, that serves to check the descent of the person. A connection from the rope near the waist-belt serves for drawing up the friction-clasp along with the belt, so as to be used by persons successively.

My particular improvements relate to the friction-clasp, to the belt, and the connection for drawing up the friction-clasp.

In the drawing, Figure 1 is an elevation, illustrative of the manner in which the apparatus is used. Fig. 2 is a section of the clasp. Fig. 3 is a plan of the clasp, and Fig. 4 represents the body-belt.

The belt *a* is attached at one end to the suspending or fire-escape rope *b*, near which place there is a buckle, *c*, that is provided with an **S**-shaped slot, 2, open at one end; and upon the free end of the belt *a* there is a tubular lace, *e*, of a size to pass freely into the slot 2, and at short intervals in this tubular lace there are glands or enlargements similar to knots, that are too large to pass through the slot; hence, when the belt is passed around the person and the tubular lace entered into the open end of the **S**-shaped slot, the enlargement prevents the lace slipping through the slot of the buckle, and securely fastens the belt to the person, regardless of the hurried or careless manner in which it may have been applied.

The rope *b* passes over the pulley *h*, that is attached to the cornice of the building, or to a crane or other suitable device, by which the person can be suspended.

As the person descends with the belt at the end of the rope, the other part of the rope draws upward.

By this arrangement the weight of the person is divided between the descending and ascending ropes, and the clasping device is easily managed, and requires less friction than the ordinary frictional clamps.

This frictional clasping device is shown in Figs. 2 and 3, and is composed of two half-shells, *k l*, with end flanges 3 4, passing one within the other, and connected by rivets or screws 5, passing through slots in the end flanges, so that the shells can be pressed nearer to each other or separate. Within these shells are the frictional ribs *i i*, that are adjacent to each other, and act at opposite sides of the rope *b*, that passes longitudinally through between the shells, so that the person using this fire-escape will grasp the shells with one or both hands, and, according to the grasping force applied, the friction on the rope will be more or less, and the speed of descent regulated.

I provide a reel, *m*, upon which the rope is wound when not in use, and this is to be thrown out of the window before the escape is used, and the rope unwinds from the same.

There is a cord or rope, *n*, extending from the friction-clasp to the ring *o*, above a knot in the rope *b*, near the belt *a*; hence, after a person has descended, he can draw up the belt, and also the clamp, to be used subsequently by another person.

I claim as my invention—

1. The friction-clasp for the fire-escape rope, composed of the two shells *k l*, ribs *i*, slotted end flanges 3 4, and rivets or screws 5, substantially as set forth.

2. The belt *a*, having a buckle at one end formed with an **S**-shaped slot, and a cord at the other end, having glands or projections at intervals, substantially as set forth.

3. The combination, in a fire-escape, of a belt, *a*, rope *b*, frictional clasp *k l*, and rope or cord *n*, substantially as and for the purposes set forth.

Signed by me this 31st day of January, A. D. 1878.

J. E. WILDBORE.

Witnesses:

GEO. T. PINCKNEY,

CHAS. H. SMITH.