D. F. HUNT
Fire-Escape.

No. 207,419. Patented Aug. 27, 1878.

Fig. 1.

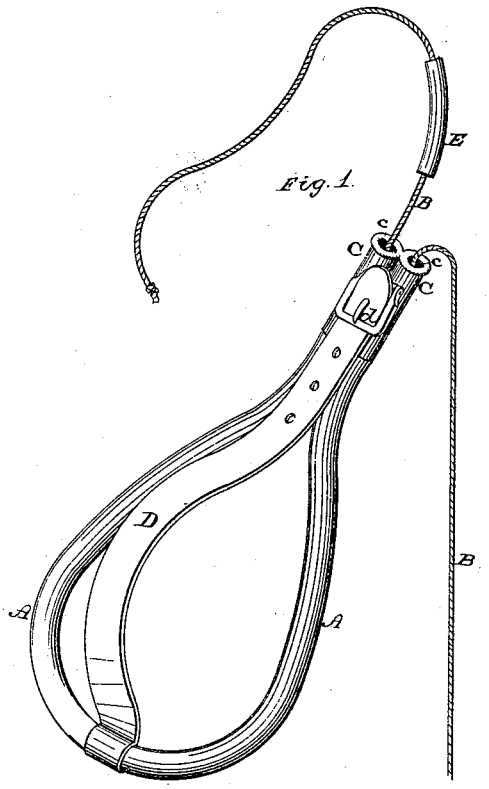
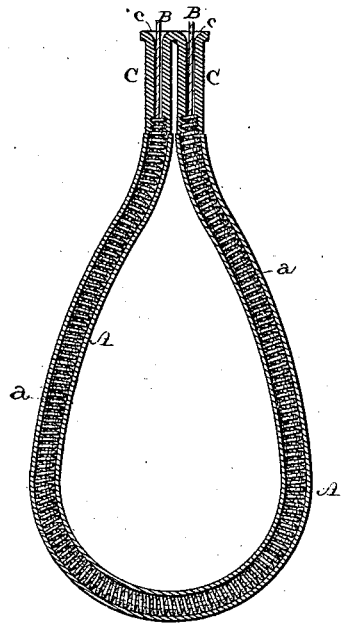


Fig. 2.



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UNITED STATES PATENT OFFICE.

DAVID F. HUNT, OF BURLINGTON, VERMONT.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **207,419**, dated August 27, 1878; application filed November 28, 1877.

To all whom it may concern:

Be it known that I, DAVID F. HUNT, of the city of Burlington, in the county of Chittenden and State of Vermont, have invented certain new and useful Improvements in Fire-Escapes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in the devices heretofore employed, in connection with cords or ropes, to which the weight desired to be lowered is attached.

Many of these devices are found to be objectionable, for the reason that they are either formed of parts which are liable to become broken, impeded in their working, or so displaced by want of care as to be wholly or in great measure unequal to the demand upon them by persons presumably frightened at the moment of greatest emergency.

My apparatus consists of two principal parts—a cord and a belt. The cord is of sufficient length to reach from the room to the ground. The belt is a flexible tube, formed of a coiled wire, which, if desired, may be covered with leather, webbing, rubber, or any suitable material. The two ends of this tube are inserted into nozzles made of metal or other suitable material, which are counterbored to receive them, and in which they are firmly fastened. The mouths of these nozzles are bell-shaped or rounded, with smooth flanges. The ends of the belt may be fastened together around the body by a strap, hook, or any similar device.

The tube thus made is longitudinally elastic, and is also capable of being curved in any direction. Its interior surface, being composed of the polished surface of the coiled wire, forms a perfectly smooth and continuous bore for the passage of the cord.

To protect the hand from injury caused by the passage of the rope through it while the person is making the descent, a guard at each nozzle is provided, which consists of a cylinder made of rubber or other suitable material, through which the rope passes. This guard may serve the purpose of increasing the friction, and so breaking the descent, by being allowed to slip with the rope to the nozzle, as would happen should the person descending, from excitement, let go his or her hold on the guard.

In the drawings, Figure 1 represents a perspective view. Fig. 2 is a sectional view.

Similar letters indicate corresponding parts.

A represents the flexible tube through which the cord B is passed. *a* is the spiral coil which forms the tube A. C C are the extremities or nozzles of the tube A. The upper ends of these nozzles are turned outwardly at *c*, forming a flange. D *d* is the strap and buckle, or device for fastening the ends of the belt together. E is the hand-guard.

When in operation one end of the cord is securely fastened in the room. The remainder, which runs through the hand-guard E and the belt A, is dropped down outside of the building to the ground. The belt is then passed around the body of the person to be lowered, its ends being secured by means of the fastening device D *d*. Grasping that hand-guard or the cord below the nozzle of the tube, the person descending is enabled to easily regulate the velocity of his descent by tightening his hold upon the cord B, as it runs through his hand and guard E, the friction of the cord passing through the horizontal and vertical curvature of the belt and over the flange of one of its nozzles being sufficient to counterbalance, in a large degree, the force of the weight.

It is apparent that in the details of construction several changes may be made without departing from the spirit of my invention, which consists of a belt which is a flexible tube for the passage of a cord, the extremities of this tube terminating in nozzles, and provided with a suitable arrangement for fastening the ends together.

What I claim as new, and desire to secure by Letters Patent, is—

1. The belt formed of a flexible tube for in-

creasing the friction of a cord passing through it, substantially as and for the purpose set forth.

2. The rope or cord, in combination with a tubular flexible belt, substantially as described.

3. The combination of a rope or cord, having a hand-guard, with a flexible tubular belt, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

DAVID F. HUNT.

Witnesses:
CHARLES E. ALLEN,
W. L. WORCESTER.