

B. FOX.
FIRE ESCAPE.

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Inventress.
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by James H. Layman.
Chy.

UNITED STATES PATENT OFFICE.

BARBARY FOX, OF NAPOLEON, INDIANA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 527,487, dated October 16, 1894.

Application filed August 28, 1894. Serial No. 521,496. (No model.)

To all whom it may concern:

Be it known that I, BARBARY FOX, a citizen of the United States, residing at Napoleon, in the county of Ripley and State of Indiana, 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, reference being had to the annexed drawings, which form part of this specification.

In Letters Patent No. 522,981, granted to me July 17, 1894, I have shown and described a fire-escape which needs a separate and distinct frame at its upper end to carry a brake mechanism for controlling the movement of an endless band capable of being grasped by every one who slides down within a large, flexible tube that reaches to the ground. This construction answers every purpose when the apparatus can be permanently secured within a window or doorway, but is not so effective when the escape is needed at any opening where such a special frame can not be applied. Therefore, in order to render my invention more general in its use, I omit said frame and apply the brake mechanism to rings that distend the upper and lower ends of the tube or chute, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a longitudinal section of my fire-escape in position for use, the central portion of the flexible tube being broken away to indicate that it may be of any desired length. Fig. 2 is a plan of the brake mechanism applied to the upper end of said tube. Fig. 3 is a side elevation of the lower brake-mechanism. Fig. 4 is an elevation of the upper ring, the tube and brake-mechanism being omitted.

The principal member of my present fire-escape is a flexible tube or chute A, similar to the one seen in the patent above referred to, the ends of said tube being constantly distended by stout rings B, B', to the outer sides of which handles *b, b', b', b'*, are secured, for a purpose that will appear hereinafter. Rigidly united to the lower ring B, by bolts or rivets C, are two parallel arms D, D', that

afford journal bearings for a roller or spool E, near which is fitted a clamp-bar F, whose ends are guided by these arms.

G is a bar that unites the outer ends of said arms, and has a screw H engaged with it, the point of said screw being in contact with the other bar F. These devices are duplicated at the upper ring of the tube; I, I', being the arms of the same, J the spool, K the clamp-bar, L the cross-bar and M the screw.

N represents a number of hooks, of different lengths, coupled to the lower side of said upper-ring B'.

O is an endless band or belt passing around these spools, E, J, which latter are so arranged as to cause one half of said band to travel external, with reference to the tube A, while the other half of the band traverses the interior of said tube, from end to end.

P is a window frame, and R is one of a pair of hooks, or other convenient fasteners, secured to said frame in any place that will be the most suitable.

It is evident this new form of fire-escape can be readily and securely applied to a door or window frame, the appropriate hook N, being first engaged with the inner edge of the sill or other similar fixture, and the upper ring B' being supported on said sill, as seen in Fig. 1. The ring can be retained in this position by a number of people, within the building, grasping the handles *b, b'*, or by passing ropes through them, or by engaging hooks R therewith, the latter expedient being preferred, for obvious reasons. The parties escaping from the building then grasp the endless band O, and descend within the tube A, in the manner described in my old patent, the speed of descent being regulated by using either or both of the brake-mechanisms. Therefore, if either one of the brakes should be out of order, or if the operators at one end of the tube can not close up the clamp-bar, or are too excited to attend to their duties, there is a reserve to depend on. Finally, by dispensing with the special frame, seen in my old patent, I am enabled to fold

up the new escape in a very compact bundle, thereby facilitating its transportation.

I claim as my invention—

In combination with a fire-escape consisting of a flexible-tube A, having rings B, B', secured to its ends; the arms D, D', I, I', projecting rigidly from said rings; the spools E, J, clamp-bars F, K, and screws H, M, applied to said arms, in the manner described; and the endless band O, passing around these

spools and having one portion external to said chute, and another portion traversing it internally, all as herein described, and for the purpose stated.

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

BARBARY FOX.

Witnesses:

JAMES H. LAYMAN,

ARTHUR MOORE.