

(No Model.)

J. MURPHY & F. M. RANKIN.

PORTABLE FIRE ESCAPE.

No. 499,562.

Patented June 13, 1893.

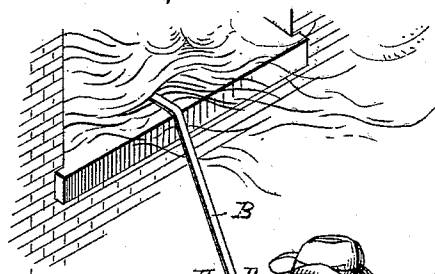


Fig. 1.

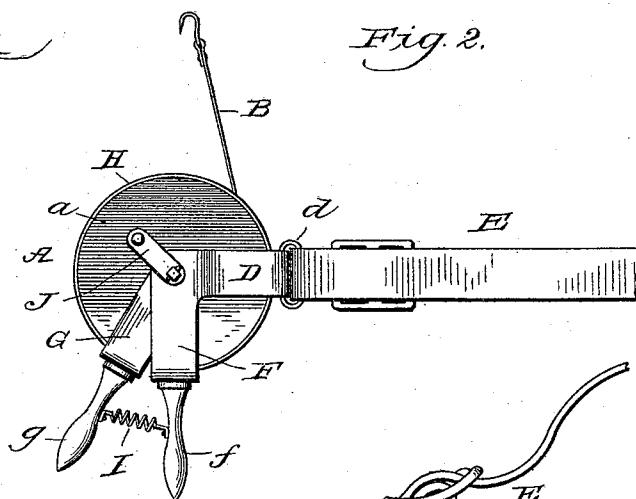


Fig. 2.

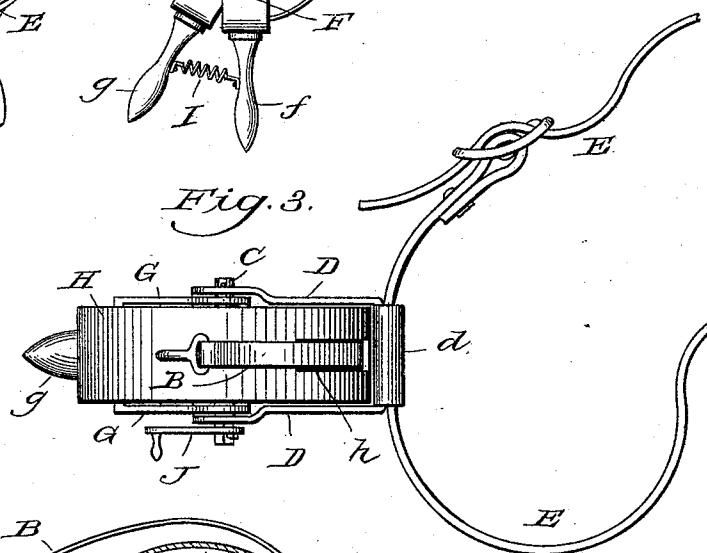


Fig. 3.

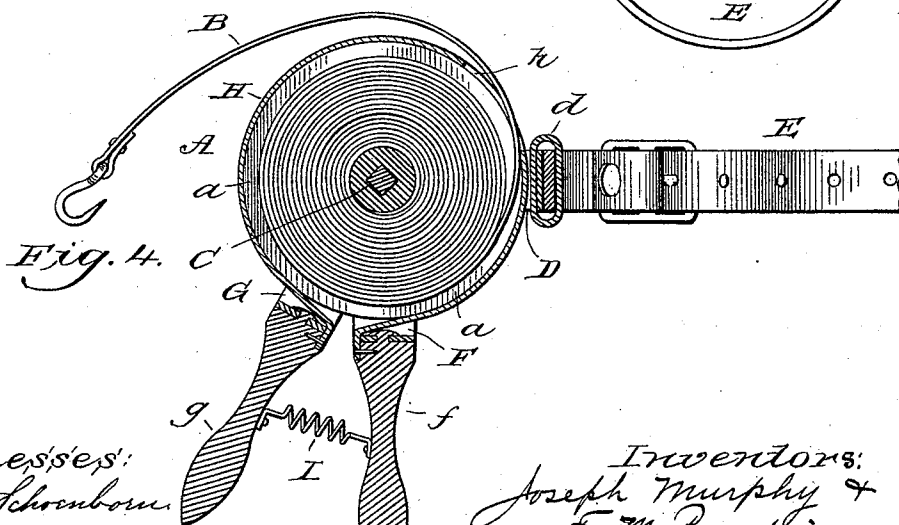


Fig. 4.

Witnesses:
Wm. A. Schornborn.
C. W. Seville.

Inventors:
Joseph Murphy &
F. M. Rankin.
By Alexander & Fowell attys.

UNITED STATES PATENT OFFICE.

JOSEPH MURPHY AND FRANCIS M. RANKIN, OF COVINGTON, OHIO.

PORTABLE FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 499,562, dated June 13, 1893.

Application filed December 6, 1892. Serial No. 454,273. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH MURPHY and FRANCIS M. RANKIN, of Covington, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Portable Fire-Escapes; and we hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to frictionally controlled portable fire escapes, and is an improvement upon the fire escape for which Letters Patent of the United States No. 484,042 were granted to us on the 11th day of October, 1892, the object of this invention being to provide an escape which can be carried in a valise, or pocket, and can be controlled by one hand. It therefore consists in the novel construction and combination of parts hereinafter described and summarized in the claims.

In the accompanying drawings:—Figure 1 represents the escape as being used. Fig. 2 is a side view thereof. Fig. 3 is a top view thereof; Fig. 4 a sectional view.

The escape consists of a short spool A, the end flanges *a* of which are just far enough apart to allow a ribbon B to be wound on the spool shaft C. This ribbon is preferably of flexible steel so that the device may be compact, and yet of sufficient strength. The ends of shaft C project beyond the flanges *a* and are loosely connected to the extremities of a U-shaped bracket D which loosely embraces the side of spool as shown. To the transverse piece of said bracket is secured a loop *d*, through which a belt strap E is passed, by which the device is attached to the body of the wearer as indicated in Fig. 1.

F is a U-shaped strap also partly embracing the spool, its ends being attached to the arms of bracket D as indicated and to the transverse piece of said strap is affixed a handle *f*. G is a similar strap loosely connected to the bracket or hung on shaft C, and provided with a handle *g*. It is necessary that one or both of said handle straps be loosely connected, so that they may be moved toward or away from each other by their handles. In practice the strap and handle could conveniently be formed in one piece if desired.

H is a friction band nearly encircling spool A, having its opposite ends connected to the transverse piece of straps F, G, or the handles *f*, *g*, in such manner that when these handles are drawn toward each other the band is clamped around and upon the peripheries of flanges *a*, *a*. The band passes between the bracket D and periphery of the flanges *a* as shown. The outer end of ribbon B passes through a slot *h* in band H and is provided with a hook, or other suitable device whereby it can be fastened to a window casing, or other fixture.

I is a helical spring, having its ends fastened to the adjoining handles *f*, *g*, adapted to draw them together and thereby automatically hold the tension band sufficiently taut to prevent casual unwinding of the ribbon B.

J is a crank handle removably attached to the shaft C, by which the ribbon can be wound on the spool. This should be removed when the escape is to be used.

When in use, the end of ribbon B is secured to the window casing, or other convenient fixed point. The spool is then fastened to the body of a person by means of strap E, with slot *h* uppermost. The wearer then grasps the handles with one hand, and lets himself down, the ribbon unwinding as he descends, and the speed of his descent being controlled by his grip on the handles. The friction band it will be noticed serves also as a cover for protecting the ribbon on the spool, and the whole can be made very small and light, and still be reliable in use. Of course a cord, wire or chain might be substituted for the ribbon, and the brackets and straps altered in form to present a handsomer appearance if desired, without varying the essential features and combination of parts.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent thereon, is—

1. In a fire escape the combination of a spool, a ribbon wound thereon, a friction band surrounding the spool and inclosing the ribbon wound thereon, having a slot for the passage of said ribbon, and means for tensioning said band, substantially as described.

2. In a portable fire escape, the combination of a spool, a ribbon wound thereon, a pair of handle straps each connected to the spool

shaft, a friction band encircling the spool flanges and connected to the opposite straps respectively at its opposite ends, and means for attaching the spool to the body of the wearer, substantially as specified.

3. In a fire escape the combination of a spool, a ribbon wound thereon, and a single friction band surrounding the spool and bearing on both flanges thereof, and slotted for the passage of the ribbon, with the handle straps connected to the spool shaft, and to the respective ends of said friction band, and means for attaching the spool to the body of a person, substantially as described.

4. The combination of the spool, the bracket partly embracing it connected to the shaft thereof, and means for securing said bracket to the body of a person, with a friction band encircling the spool, the handle straps respectively connected to the opposite ends of said friction band, a spring for drawing the handles together the ribbon on said spool and

a crank for winding the shaft, substantially as described.

5. In a portable fire escape, the combination of a spool, a ribbon wound thereon, a single friction band encircling the spool and bearing on both flanges thereof, also slotted for the passage of the ribbon, the handle straps connected to the spool shaft, and to which the opposite ends of said friction band are attached, a spring for drawing said handles toward each other, and means for attaching the spool to the body of a person, substantially as and for the purpose set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

JOSEPH MURPHY.
FRANCIS M. RANKIN.

Witnesses:

J. E. BALLOU,
W. J. FOEKLER.