No. 802,252. PATENTED OCT. 17, 1905.

C. W. ANDERSON.

FIRE ESCAPE.

APPLICATION FILED MAR. 27, 1905.

Fig. 1.

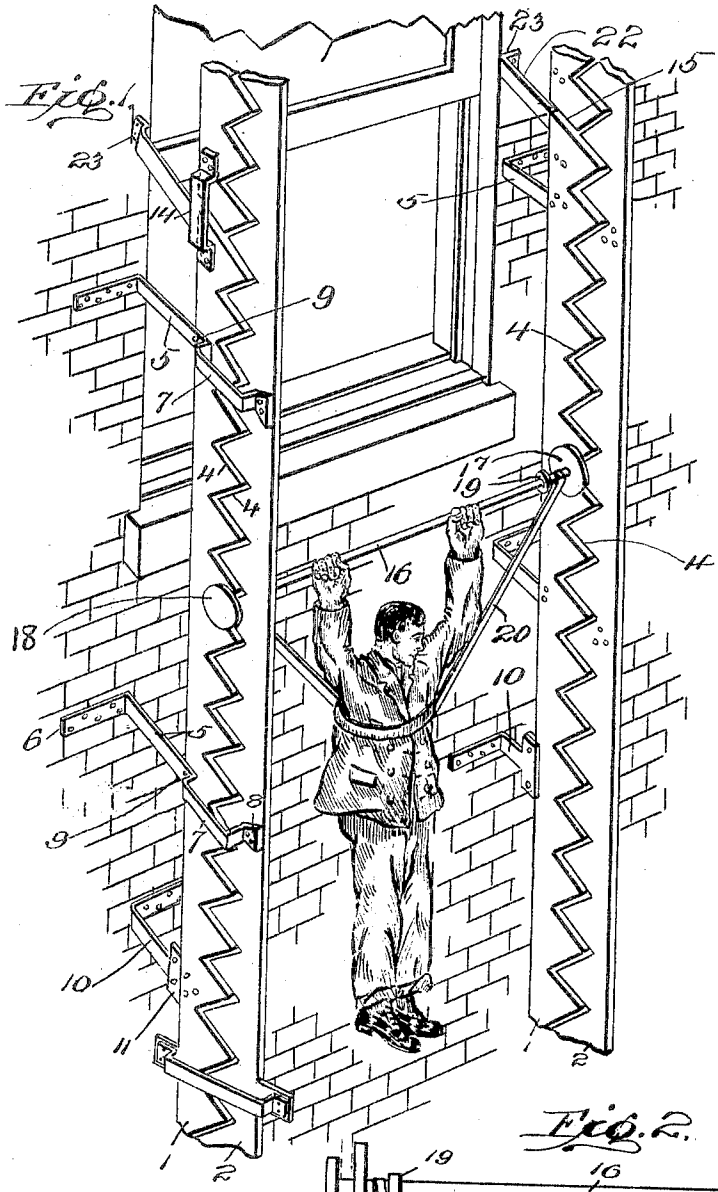


Fig. 3.

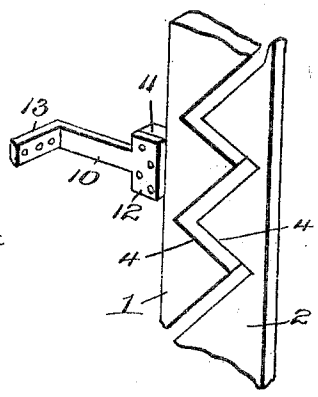


Fig. 4.

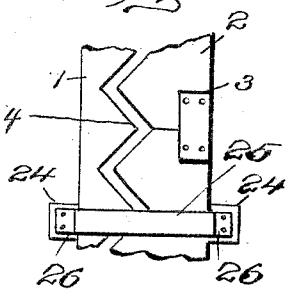
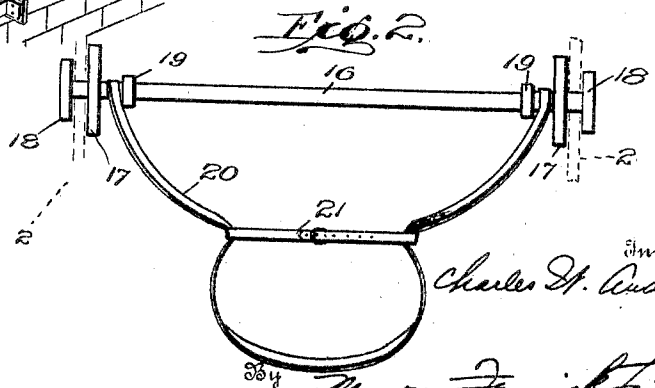


Fig. 2.



Witnesses

J. M. Fowler Jr.

Edwin E. Crooman.

Inventor

Charles W. Anderson,

Mason, Fennick & Lawrence

Attorneys.

ANDREW B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES W. ANDERSON, OF SEATTLE, WASHINGTON.

FIRE-ESCAPE.

No. 802,252. Specification of Letters Patent. Patented Oct. 17, 1905.

Application filed March 27, 1905. Serial No. 252,235.

To all whom it may concern:

Be it known that I, CHARLES W. ANDERSON, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, 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, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates particularly to improvements in fire-escapes, but is susceptible of being employed as an amusement device.

One of the numerous objects in view is the production of an apparatus whereby a person may descend from a building or dwelling without liability of injury.

Another object of the invention is the construction of a device which is provided with traveling supporting means positioned between guides for permitting of a person to be suspended therefrom during the downward travel.

A still further object of the invention is the construction of a device provided with guides, a traveling member coacting with said guides, and means formed upon said guides for retarding to a certain degree the downward movement of said traveling member.

With these and other objects in view the invention consists of certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a portion of a fire-escape secured to a building. Fig. 2 is an elevated front view of the traveling supporting device. Fig. 3 is a fragmentary perspective view of one of the sectional guides, showing an auxiliary supporting-bracket secured thereto. Fig. 4 is a fragmentary view, in side elevation, of one of the guides, showing the manner in which the members of the outer section of the guide are secured together.

While the hereinafter-described device is employed as a fire-escape, it is not necessary to limit it only to this particular use, as a great amount of amusement may be derived by persons traveling down the guide members supported by the traveling bar, or, if it is desired, the same may be used as a toy by decreasing the size of the parts.

Each of the guides comprises an inner section 1 and the outer section 2. As is clearly obvious in Fig. 4, the outer section 2 is composed of members secured together by a connecting-plate 3. The plate 3 is riveted or otherwise secured to the adjoining ends of the members of the outer section. In similar manner the members of each of the inner sections are secured together. Each of the sections of the guide members is provided with an inner notched edge 4, which when the sections are assembled constitutes a zigzag longitudinal groove in each of the guide members. The guide members are primarily secured to a building by brackets 5. The brackets 5 comprise a body portion provided with a right-angled extension 6 at one end, which is secured to the building by any suitable means. The opposite end of the bracket is provided with a bulged portion 7, which is constructed for the purpose hereinafter specified. The extreme outer end 8 of each of the brackets 5 is secured to the outer section 2 of each of the guide members near the outer edge of the same. The bracket 5 is secured at 9 to the inner edge of the inner section of the guide.

Auxiliary brackets 10 are secured to the building and to the inner sections of the guide members. The inner sections are provided with integral extensions 11, to which is secured the broadened portion 12 of the brackets. The opposite end of the bracket 10 is bent at right angles, as at 13, for affording suitable means by which said bracket is secured to the building, so that the inner section will be retained at right angles to the same. While a flat plate or member 3 is employed in securing the adjoining ends of the members constituting the outer sections of the guide members together, I employ a bulged or angular bracket 14 for spacing the adjoining ends of each of the members constituting the inner sections of each of the guides apart. It will be seen upon referring to Fig. 1 that the members constituting the inner sections are spaced apart near a window, as seen at 15, providing an opening for permitting of the insertion of a traveling supporting device into the zigzag grooves of the parallel guide members.

Any number of traveling supporting devices may be employed; but as they are similar in construction it will only be necessary to specifically describe one. Each of the traveling supporting devices comprises a straight bar 16, preferably tubular in construction. The

bar 15 is provided with disks or annular members integrally formed thereon near each end. The disks or annular extensions comprise primary guide-disks 17 17 and auxiliary guide-disks 18 18. The auxiliary guide-disks are of less diameter than the primary disks, said auxiliary guide-disks being secured to the extreme end of the bar 16, while the comparatively large primary guide-disks are spaced from the auxiliary guide-disks substantially the same distance as the width of the sections constituting the guide members. Integrally secured to the bar 16 near the primary guide-disks and between the same are spacing-disks 19, these disks 19 constituting limiting means whereby the flexible strap or member 20 is prevented from sliding together upon the bar 16. It will be noted that the straps 20 and 21, constituting a swing or supporting means, are secured between the primary disks 17 and the disks 19 in any suitable manner. It is desirable to form a loop upon the strap or flexible member 20 for encircling the person who is to be supported by the bar 16, and this is accomplished by employing a connecting member 21, preferably an adjustable strap, although a looped member could be employed to obviate the strap 21, although it is desirable to adjust the loop upon the person and not have a running noose.

If a person desires to descend by means of my improved fire-escape, after adjusting the strap around the body, or, if it is preferred, before said adjustment, the bar 18 is placed upon guide-brackets 22. The guide-brackets 22 are secured to the inner sections of the guides and to the building, preferably, a window-frame. The brackets 22 are inclined at the same angle in which the lateral openings 15 are formed, so that when the traveling supporting member is placed upon the guides 22 said device will move into the openings 15 and the longitudinal zigzag groove of the guide members. The guide-brackets 22 are secured to the building by means of the integral right-angled extensions 23. The body portion of the brackets 22 project downwardly from the extensions 23, which are secured to the window-frame. The brackets 23 are secured to the inner section of the guides in a manner similar to bracket 10, or, if it is desired, they may be secured against the sides of the inner sections, as illustrated at 9, upon the brackets 5.

In Fig. 4 I have shown integral extensions 24 projecting from the inner and outer sections of the guide member. Secured to said extension 24 is a bracket 25, which is bulged at 26 26, so as to entirely remove the central part of the same from engagement with the outer face of the guide members, permitting of the outer disk to pass between the secured ends of said bracket without engaging any part of the same.

The primary or comparatively large disks 17 bear against the inner face of each of the guide members and retain the bar 16 at all times in a horizontal position. The auxiliary disks of the bar 16 also act as guiding means. It will be seen that the bulged portions of the members 5 and 14 must be of sufficient width and length to permit of the passage of the auxiliary disks or extensions 18, secured to bar 16. After the straps constituting the swing of the traveling supporting member have been positioned upon a person and the longitudinal bar mounted upon the brackets 22 the entire weight of the body may be suspended therefrom. The bar 16 will move into the zigzag groove through the openings 15 and at once begins its downward travel, and by reason of the frequent cross motion the descent is checked sufficiently to allow of the same in safety. The angles of the notches 4 of the sections of each member are such as to permit of the slow descent of the traveling supporting device. If it is desired to descend quickly, the angles of the notches of each section should be more acute.

What I claim is—

1. In an apparatus of the character described, the combination of guide members, each guide member comprising sections, each section provided with a longitudinal, notched edge, members provided with bulged portions secured to the sections of each guide member for securing said sections together, and a traveling supporting device adapted to be positioned between the notched edges of the sections of each guide member, said supporting device comprising a bar, guide means formed upon said bar, and flexible supporting means secured to said bar.

2. The combination with a support, of brackets secured to said support, guide members secured to said brackets, each guide member provided with a longitudinal zigzag groove, a traveling supporting device adapted to be positioned within said grooves, comprising a transverse member, body-supporting means secured to said member, and said guide members having openings communicating with the longitudinal grooves, whereby the supporting device may be positioned within said groove.

3. In a fire-escape, the combination with a support, of parallel guide members, brackets provided with a right-angled extension formed upon one end and with a bulged portion upon its opposite end, secured to said support, the bulged end portion of said bracket secured to the outer face of said guide members, auxiliary brackets secured to said support and the inner face of said guide members, each of said guide members provided with a zigzag groove, said guide members provided with slots extending from one of their outer edges to the zigzag groove, bulged members secured to said guide members and partially inclosing the slotted portion of said members, and a traveling supporting device adapted to be po-

sitioned within said grooves of the guide members, said device comprising a horizontal bar, disks of varying diameters secured to said bar near each end, a flexible member secured to said bar, the inner disks of said bar constituting a stop for preventing longitudinal movement of said flexible member upon said bar, and means mounted upon said flexible member for forming a loop thereon.

4. The combination with a support of longitudinal grooved, parallel guide members secured to said support, a traveling supporting device adapted to be positioned within the grooved portion of said guide members, said supporting device comprising a transverse member, a series of extensions of different dimensions secured thereto near each end, and flexible supporting means secured to said transverse member between some of said extensions.

5. The combination with a support, of sectional guide members, primary and auxiliary brackets secured to said support and guide members, each of said primary brackets provided with a bulged portion formed upon its body, each of said guide members provided with a longitudinal zigzag groove, means for securing the sections of each of said guide members in a fixed position, and a traveling supporting device positioned within the grooves of said guide member.

6. The combination with a support, of parallel, sectional guide members secured to said support, each of said guide members provided with a longitudinal groove extending its entire length, each of said guide members provided with a lateral slot, a traveling supporting device adapted to be inserted through said slots and into said longitudinal grooves, said supporting device comprising a body provided with guiding means, and flexible supporting means suspended from said body.

7. The combination with a support, of parallel guide members carried by said support, each of said guide members provided with a zigzag groove, a traveling member positioned within grooves of said guide members, said traveling member provided with guide means formed upon each end, and body-supporting means carried by said traveling member between said guide members.

8. The combination with guide members, of traveling means connecting said guide members, said traveling means, comprising a horizontal member, said horizontal member provided with extensions of different dimensions secured near each end, and body-supporting means carried by said horizontal member.

9. The combination with guide members, of longitudinally-traveling means carried by and connecting said guide members, said traveling means comprising a horizontal bar, primary, auxiliary and spacing disks secured to said bar near each end, and body-supporting means carried by said bar.

10. In a fire-escape, or like device, the combination with guiding means, of traveling supporting means coacting therewith, said supporting means comprising a substantially straight bar, a primary, an auxiliary, and a spacing-disk secured and spaced apart upon said bar near each end, and body-engaging means carried by said bar and positioned between said primary and spacing disks.

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

CHARLES W. ANDERSON.

Witnesses:

G. WARD KEMP,

J. O. CALHOUN.