No. 731,352. PATENTED JUNE 16, 1903.

W. B. FIELD.

PORTABLE FIRE ESCAPE.

APPLICATION FILED DEC. 18, 1902.

NO MODEL.

Fig. 1.

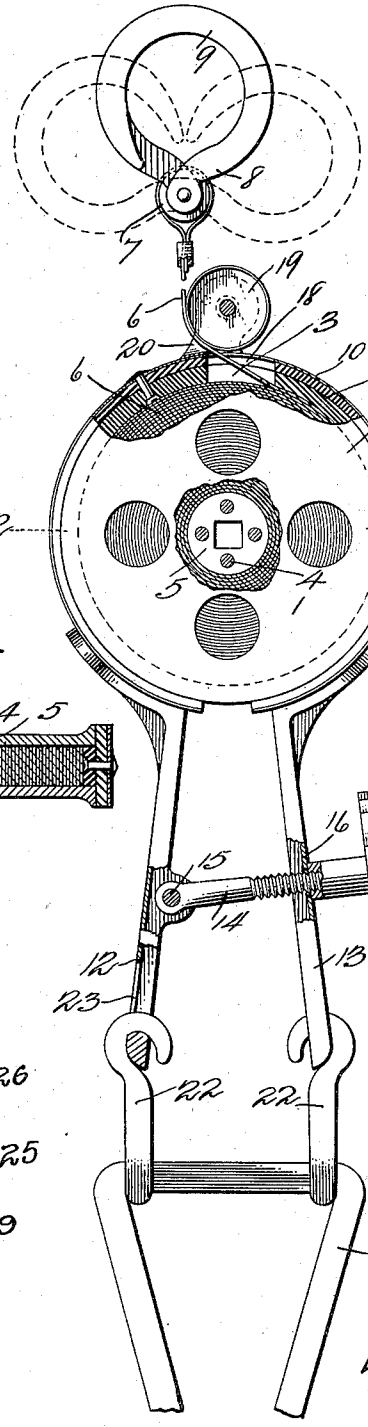


Fig. 3.

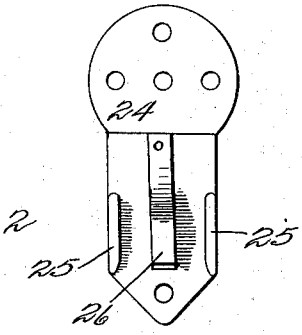


Fig. 2.

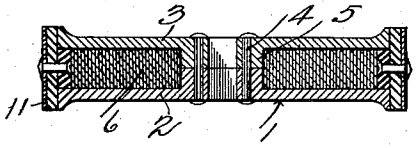


Fig. 4.

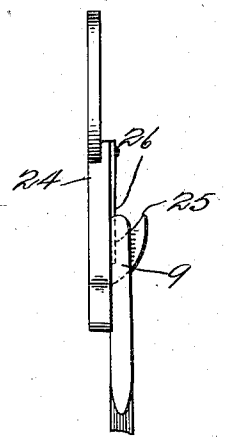
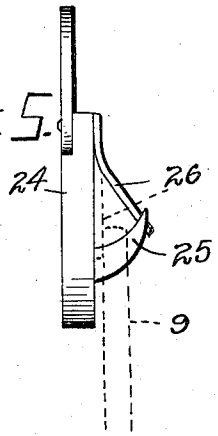


Fig. 5.



Witnesses

George Hilton

Inventor

Webster B. Field,

By A. Bellinson & Co

Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 731,352. Patented June 16, 1903.

UNITED STATES PATENT OFFICE.

WEBSTER B. FIELD, OF MORRIS, ILLINOIS.

PORTABLE FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 731,352, dated June 16, 1903.

Application filed December 18, 1902. Serial No. 135,751. (No model.)

To all whom it may concern:

Be it known that I, WEBSTER B. FIELD, a citizen of the United States, residing at Morris, in the county of Grundy and State of Illinois, have invented certain new and useful Improvements in Portable Fire-Escapes; and I do 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 to portable fire-escapes; and its object is to provide a device by means of which persons may easily and quickly lower themselves from the upper floor of a building.

A further object of the invention is to provide a device of this character which is simple in construction, very durable and efficient in operation, and which may be conveniently carried in a valise or trunk.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation showing a fire-escape embodying my invention, parts of the same being broken away to more clearly illustrate the construction. Fig. 2 is a horizontal sectional view through the drum or reel on the line 2 2 of Fig. 1. Figs. 3 and 4 are respectively front and side views of one form of hook which may be used in connection with my invention. Fig. 5 is a view similar to Fig. 4, showing in full lines the normal position of spring 26 and in dotted lines the positions of said spring and the hook 9 when the latter is applied.

Referring more particularly to the drawings, the numeral 1 denotes a hollow reel or drum formed of two half-sections 2 3, united by the rivets or bolts 4, which pass through the hub portions 5. A metallic band or tape 6, of any desirable length, having one end secured to said hub portions, is wound around the same within the drum. The opposite or free end of this band extends outside of the drum and is secured upon a roller 7, journaled between the bifurcated lower ends 8 of a two-part lap-hook 9, shown in its closed position by the full lines in Fig. 1 and in its opened position by the dotted lines.

A metallic brake-band 10, provided with a lining of leather or other material 11, almost surrounds the periphery of the hollow drum 1 and is adapted to bear frictionally upon the same to retard its rotation. The free ends of the band 10 are provided with arms forming handles 12 and 13, which may be drawn together in order to bind the brake-band upon the periphery of the reel by means of the screw-rod 14, pivoted at 15 to the handle 12 and passing through an aperture 16 in the handle 13. A turning-nut 17, formed with a hand-wheel, is adjusted upon the threaded end of the rod 14 to apply the proper pressure upon the ends of the brake-band 10 to check the rotation of the reel or drum 1.

The band or tape 6 extends through an opening 18, formed in the top of the brake-band 10 and its lining 11 and is guided by a pulley or sheave 19, journaled in a bracket 20, secured upon the top of the brake-band 10.

In Figs. 3 and 4 I have illustrated a hook 24, which may be secured to the building at any point adjacent to the window and upon which the lap-hook 9 may be secured. Said hook 24 consists of a plate, the upper end of which is apertured to receive the nails or screws which fasten it to the wall of the building, and the lower end of said plate is formed with the hook members 25, which are engaged by the lap-hook 9. A spring 26 upon said plate tends to disengage the hook 9 from the hooks 25 as soon as the tension is removed from the hook 9. By this construction the fire-escape may be more readily detached from the supporting-hooks for removal from one window or point to another, and it may also be detached by the descending party, who upon reaching the ground or other point of safety may by relaxing the tension from the hook 9, as by relieving the hook of weight or strain, cause the spring 26 to detach said hook 9 from the hooks 25, allowing the fire-escape to fall to the ground, so that it will not be consumed in the conflagration.

In the operation of this device a belt 21 of any description is secured about the waist of the operator and is provided with snap-hooks 22 of any desired construction, which engage the openings 23, formed in the lower ends of

the handles 12 and 13. The hook 9 is engaged upon the fixed hook 24, provided for that purpose. The proper tension is applied to the handles 12 and 13 by turning of the hand-wheel 17 to lock the drum or reel, and by gradually loosening the brake-band 10 upon the periphery of the drum 1 the latter will be permitted to turn within the brake-band. The band 6 will then gradually unwind and lower the operator. The hub portion 5 of the drum is provided with a central rectangular opening or aperture in which a similar shaped end of a crank may be inserted to rewind the band or cable 6 within the drum.

From the foregoing description, taken in connection with the accompanying drawings, it is thought that the construction, operation, and advantages of my improved fire-escape will be readily apparent without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a fire-escape, having a suspending-hook, of a bracket-plate adapted to be secured to a wall or like support and having a hook to receive said suspending-hook, and means for automatically throwing said hooks out of engagement when the tension is removed from the suspending-hook, substantially as described.

2. The combination with a fire-escape having a suspending-hook, of a bracket-plate adapted to be secured to a wall or like support and having a hook to receive said suspending-hook, and a spring for automatically throwing said hooks out of engagement when the tension is removed from the suspending-hook, substantially as described.

3. The combination with a fire-escape having a suspending-hook, of a bracket-plate adapted to be secured to a wall or like support and having spaced hooks to receive said suspending-hook, and a spring disposed between said spaced hooks on the bracket-plate and compressed by the suspending-hook when the latter is engaged therewith, said spring serving to throw said suspending-hook out of engagement with said spaced hooks when the tension on the suspending-hook is removed, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WEBSTER B. FIELD.

Witnesses:
PETER B. PETERSON,
JAMES MACK.