(No Model.)

F. A. A'NEALS.

FIRE ESCAPE.

No. 261,121. Patented July 18, 1882.

Fig. 1.

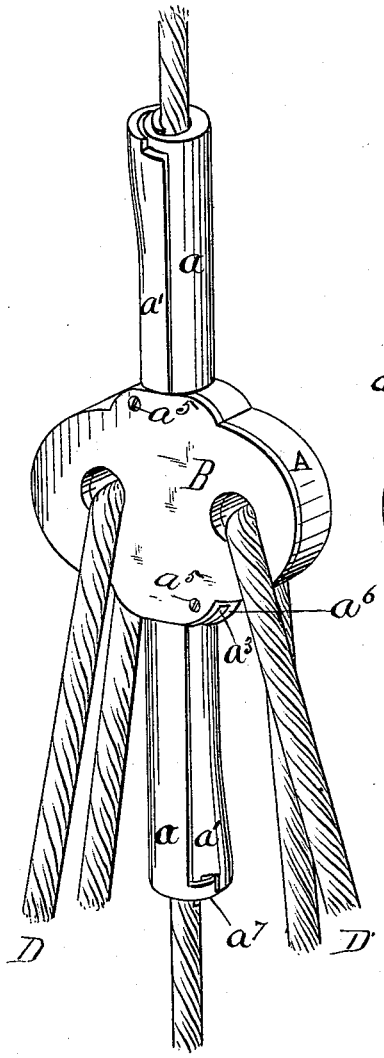


Fig. 2.

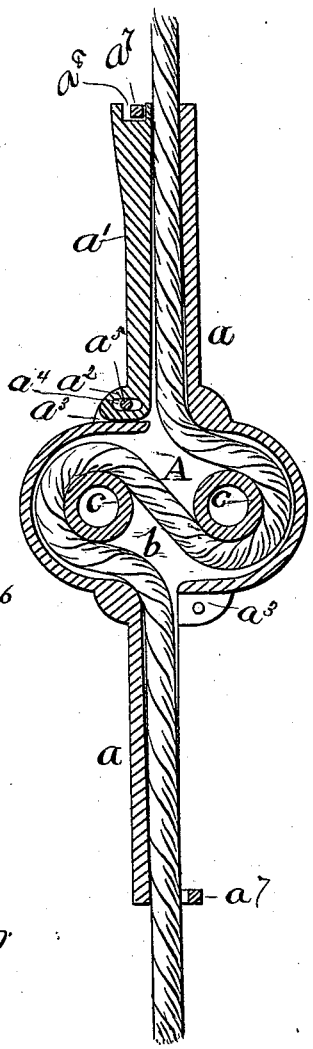


Fig. 3.

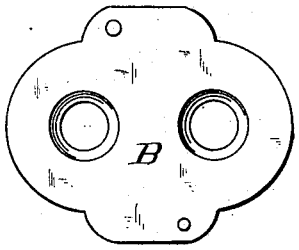
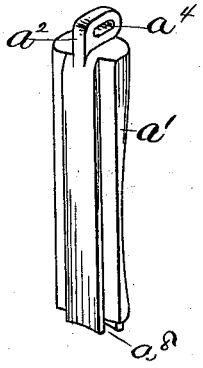


Fig. 4.



Witnesses:
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Chas. Flint

Inventor
F. A. Neals
By
Atty.

UNITED STATES PATENT OFFICE.

FRANCIS A. A'NEALS, OF TOPEKA, KANSAS, ASSIGNOR OF ONE-HALF TO GEORGE M. STEARNS, OF SAME PLACE.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 261,121, dated July 18, 1882.

Application filed April 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS A. A'NEALS, a citizen of the United States of America, residing at Topeka, in the county of Shawnee and State of Kansas, 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to that class of devices known as "friction fire-escapes;" and it consists in certain features of construction hereinafter described, and specifically set forth in the claims.

Figure 1 is a perspective of a fire-escape embodying my invention. Fig. 2 is a vertical section of the same; Fig. 3, a plan of the cover, and Fig. 4 a detail in perspective.

Like letters refer to like parts in all the figures.

A represents the main case, which is provided with the integral handles *a a*, each provided with a movable section, *a' a'*, secured thereto in a manner hereinafter described.

Each of the handles *a a* is bored longitudinally to communicate with a chamber, *b*, in the central part of the case, in which are cast integral with the case two perforated lugs or posts, *c c*, the perforations being extended through the case and its cover B.

The inner end of each of the movable sections *a'* of the handles *a* is formed with a tenon, a^2, adapted to loosely fit a mortise, a^3, formed in the case, and the tenon is slotted at a^4, and is retained by the pin, bolt, or screw a^5, which also serves to retain the cover B upon the case, said screw being seated in the opposite side of the case at a^6.

The outer end of each of the handles *a* is formed with an arched bridge-piece, a^7, and the outer end of each of the movable sections *a'* is grooved at a^8 in a circular form, whereby the bridge-piece a^7 may rest therein. The groove a^8 is wider than the thickness of the bridge-piece, and this construction, in connection with that of the slotted tenon, permits a sidewise movement of the section.

The rope C is entered at one of the handles, and passed to the right (or left) about one of lugs *c*, thence down and about the other lug *c*, and through the other handle.

Through the perforations of the lugs *c c*, case A, and cover B the usual seat straps or ropes, D, are passed.

The operation of the escape is as follows: One end of the rope C being suitably secured at a window in any convenient manner, the user, being seated in the straps or ropes D, grasps the lower handle *a*, or both handles, if preferred, and the movable section thereof, being pressed out slightly by the rope, is firmly pressed against it, and thus the friction of the section against the rope is under constant control, so that the rapidity of descent is governed by varying the amount of friction beyond that which is produced by the passage of the rope about the lugs *c c*.

Upon reaching the ground a second person may, by means of the rope, raise the escape for a second use, when it is reversed in position by releasing the upper tied end of the rope and securing the opposite end, when the escape will be operated with the other handle downward, thus avoiding the necessity of rearranging the rope in the escape, or of drawing it from end to end therethrough.

It will also be observed that the movable section—the friction governing device—is located, when in use, below the point at which the permanent friction-producing devices are, and hence the slightest pressure at such lower point produces much more effect than if applied at any point above the permanent devices, and this advantage may be secured in a measure by simply dividing each of the handles so that they may be compressed against the rope; but by giving the sections a bodily lateral movement the surface of contact is materially increased.

If desired, the case A may be inclined relatively to the handles, in which case the lugs *c* would lie in a common inclined instead of a common horizontal plane, as shown.

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

1. The combination of the case A, having the handles *a a*, with the sections *a' a'*, adapted to move bodily in a lateral direction, and the rope C, all substantially as shown and described.

2. The combination of the case A, provided with the handles *a a*, having the bridge-piece a^7, with the movable sections *a' a'*, grooved at a^8, and having the slotted tenon a^2, substantially as shown and described.

3. The combination of the case A, cover B, sections *a' a'*, and screws a^5 a^5, substantially as shown and described.

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

FRANCIS A. A'NEALS.

Witnesses:
J. W. CAMPBELL,
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