No. 658,842. Patented Oct. 2, 1900.

C. R. HARRIS.

FIRE ESCAPE.

(Application filed June 16, 1899. Renewed Mar. 1, 1900.)

(No Model.)

FIG. 3.

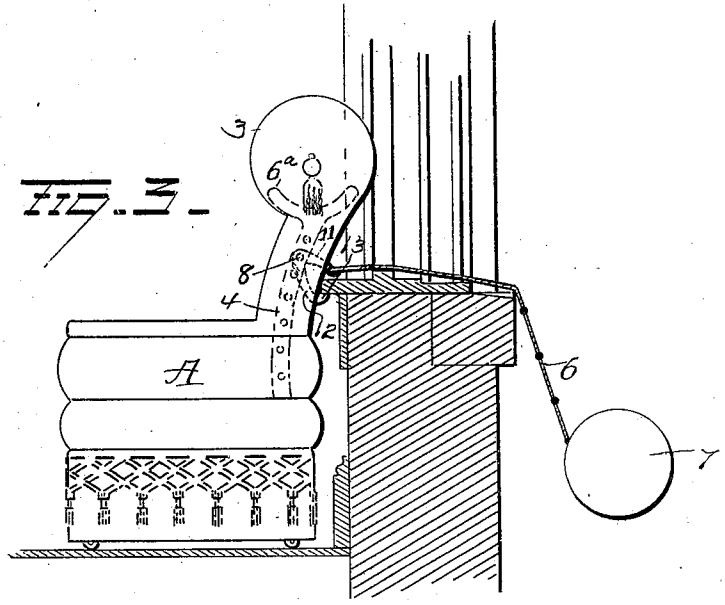


FIG. 1.

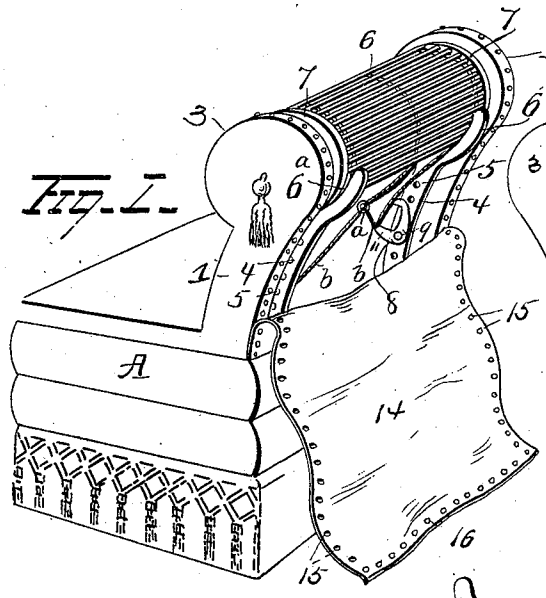


FIG. 2.

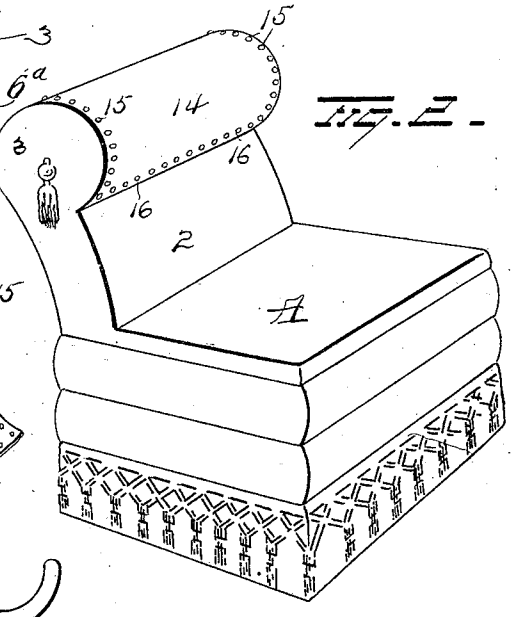
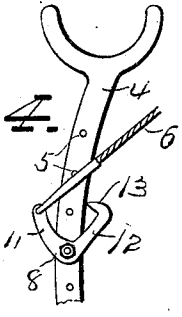


FIG. 4.



WITNESSES

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 658,842, dated October 2, 1900.

Application filed June 16, 1899. Renewed March 1, 1900. Serial No. 7,018. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. HARRIS, a resident of Williamsport, in the county of Lycoming and State of Pennsylvania, 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.

My invention relates to an improvement in fire-escapes, one object of the invention being to so construct a fire-escape that a chair or divan can be utilized in its construction in such manner as to constitute a part of the same, and thus normally conceal the ladder *per se* and its coöperating devices.

A further object is to provide means for storing a fire-escape in a room in such manner as to be always ready to be brought into use and so that when not in use it will be effectually hidden from view.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully herinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view showing my improved device ready to be used as a fire-escape. Fig. 2 is a view in perspective showing the device in use as a chair. Fig. 3 is a view showing the manner of using my improvements, and Fig. 4 is an enlarged detail view of a portion of the ladder-supporting mechanism.

A represents a chair made with parallel upright sections 1 1, which, together with a padded covering 2, forms the back of a chair. The upper ends of the side sections 1 1 are enlarged and rounded, as shown at 3, and upright supports 4, provided throughout their length with holes 5, are secured in the back of the chair and are disposed parallel and preferably spaced a distance from the side sections 1. The upper ends of the supports 4 are made in the form of yokes 6^a for the reception and support of a drum 7, on which a flexible ladder 6 is rolled, as clearly shown in Fig. 1. One end of the ladder 6 is secured to the drum 7, on which it is wound, and the other end of the ladder is secured to grappling-hooks 8, pivotally supported on bolts 9, secured in holes in the supports 4. The ladder 6 comprises, preferably, three cables, the side cables being secured directly to the grappling-hooks, while the central cable is provided on its end with a ring *a*, to which are secured two diagonally-disposed cable-sections *b*, connecting both grappling-hooks with the ring *a*, as clearly shown in Fig. 1. The grappling-hooks 8 comprise two members 11 and 12, the member 11 having a hole therein for the reception of the end of the cables of the ladder, and the member 12 provided with a lug or tooth 13, adapted to engage the woodwork of a window, as will be more fully hereinafter explained.

A covering 14, of any improved material, is secured to the back of the chair and is provided with a series of snap-hooks 15 for securing it to the back of the chair and over the rolled ladder 6 to form a head-rest, and a series of snap-hooks 16 are provided along the edge of the covering-strip 14 to secure the same to the chair below the roll.

The operation of my improved device is as follows: The grappling-hooks 8 will be disposed at a height equal to the height of the window-sill, and in case of a fire it is simply necessary to remove the covering-strip 14, push the chair to the window and throw the reel or drum therefrom, when the weight of the reel or drum will embed the lug or tooth 13 into the woodwork of the sill, and the grappling-hooks and weight of the chair will securely hold the ladder in place and permit a person or persons to descend the same.

It will be seen that as the supports 4 4 are provided with a series of holes for securing the grappling-hooks at various heights the position of the hooks can be readily changed to grasp the sills of windows of different heights.

I would have it understood that I do not wish to limit myself to the use of a chair for the support of my improved fire-escape, as I might employ a sofa, couch, or other article of furniture for the purpose.

Various slight changes might be resorted to in the general form and arrangement of the several parts described without departing from the spirit and scope of my invention,

and hence I would have it understood that I do not wish to limit myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. A combined fire-escape and article of furniture consisting of a frame, a reel mounted on said frame, a flexible ladder wound on the reel and secured at one end thereto, the other end of said ladder permanently secured to the article of furniture, said reel and ladder normally occupying a fixed position on the frame and forming a constituent part of the article of furniture, said reel and that portion of the ladder wound thereon being removable and adapted to be discharged simultaneously, and a removable covering normally inclosing said reel and ladder.

2. A fire-escape comprising an article of furniture, a ladder wound in the form of a roll and normally constituting a filling for the head-rest for said article of furniture and a grappling-hook pivoted to the article of furniture and to which the ladder is secured.

3. A fire-escape comprising an article of furniture, grappling-hooks adjustably mounted in the article of furniture and adapted to grasp the sill of a window, and a flexible ladder secured to the grappling-hooks and disposed in the article of furniture.

4. A fire-escape comprising an article of furniture, vertical supports secured in said article of furniture, yokes on the upper end of said supports, a roll of flexible ladder mounted in the yokes and constituting a filling for a head-rest, and grappling-hooks adjustably connected to said supports and to which one end of the ladder is secured.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHAS. R. HARRIS.

Witnesses:
R. F. ALLEN,
CHARLES ALLEN.