J. PAQUET.

FIRE ESCAPE.

APPLICATION FILED MAR. 9, 1912.

1,059,754.

Patented Apr. 22, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

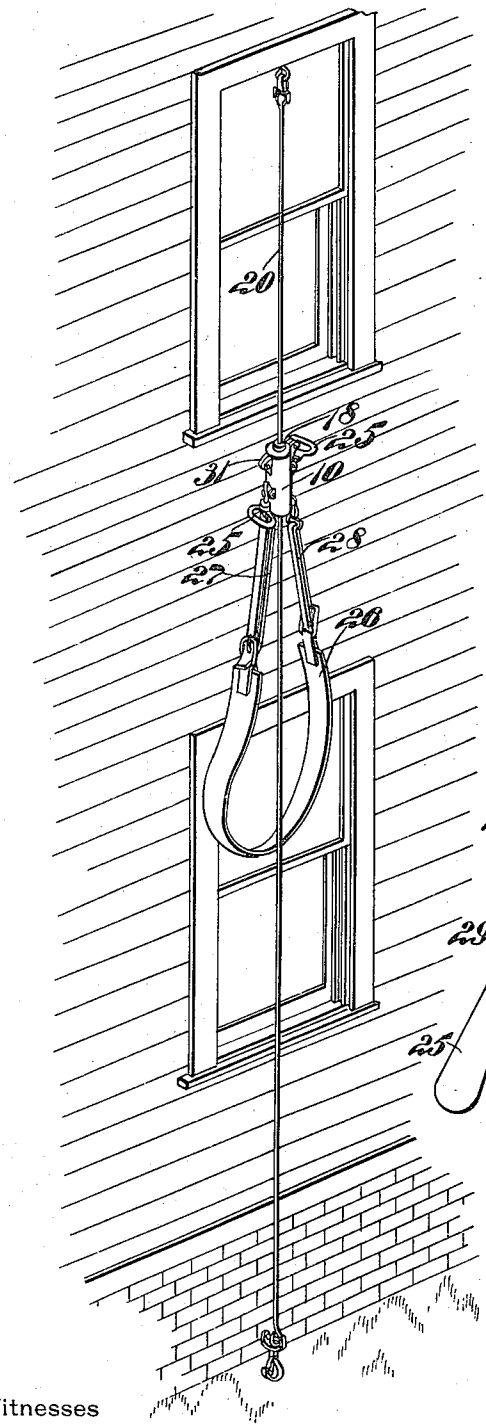
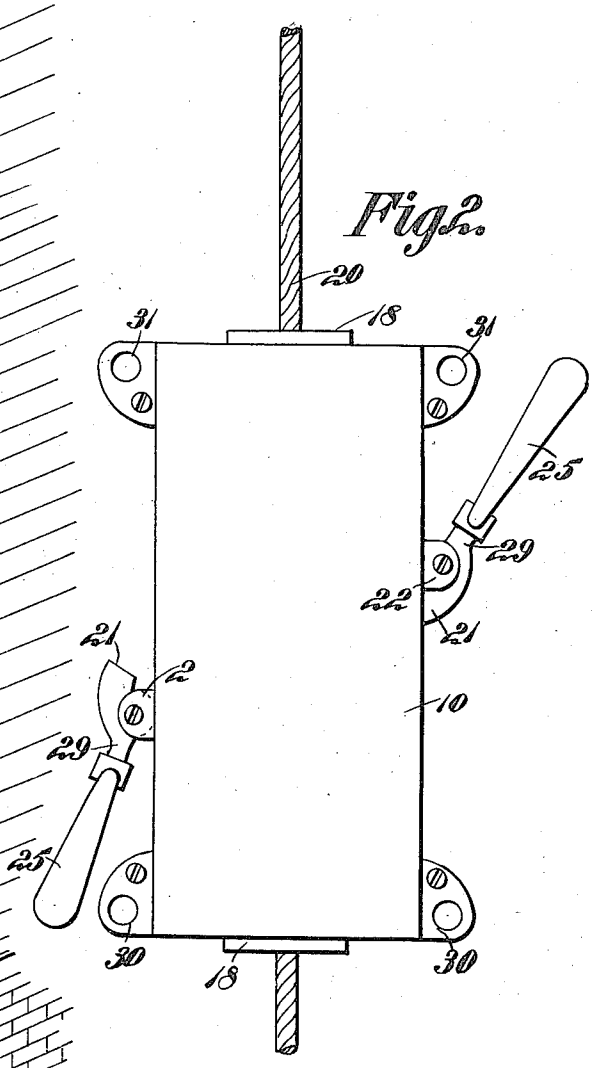


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

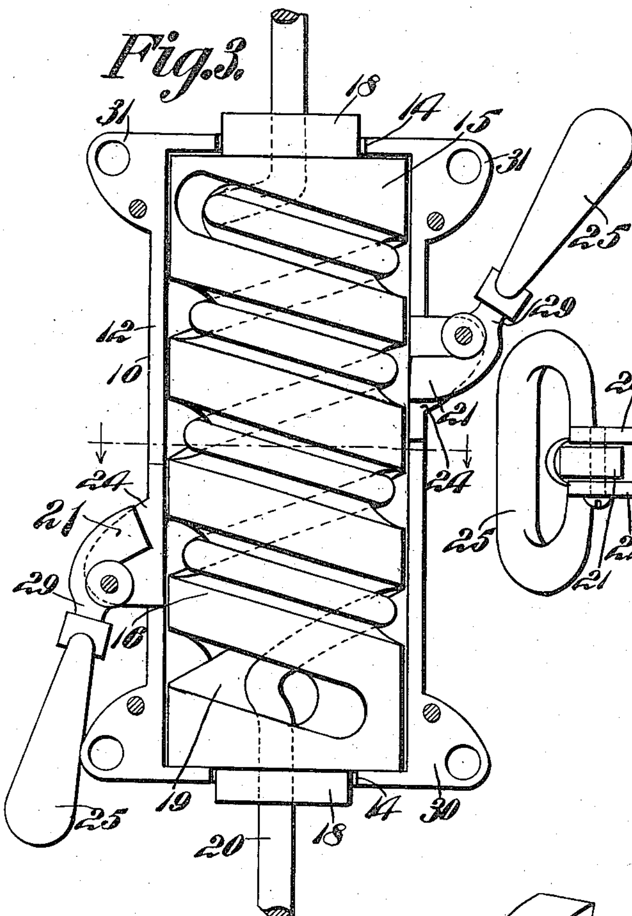
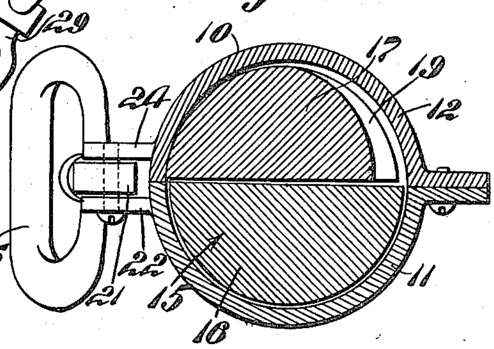


Fig. 4.



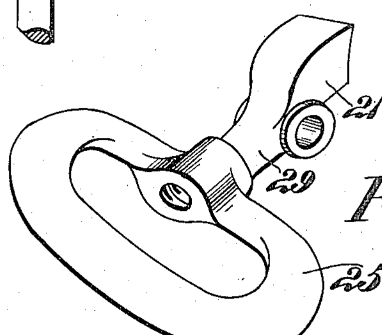


Fig. 5.

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UNITED STATES PATENT OFFICE.

JOSEPH PAQUET, OF POUGHKEEPSIE, NEW YORK, ASSIGNOR OF ONE-THIRD TO ADOLPH SNYDER AND ONE-THIRD TO HERMAN MINTZER, OF POUGHKEEPSIE, NEW YORK.

FIRE-ESCAPE.

1,059,754. Specification of Letters Patent. Patented Apr. 22, 1913.

Application filed March 9, 1912. Serial No. 682,565.

To all whom it may concern:

Be it known that I, JOSEPH PAQUET, a citizen of the United States, residing at Poughkeepsie, in the county of Dutchess and State of New York, have invented a new and useful Fire-Escape, of which the following is a specification.

This invention relates to an improvement in fire escapes.

The primary object of the invention is to provide a frictional rope clutch which will allow for the gradual descent of the chair or sling which may be attached thereto.

A further object of the invention is to provide a speed controlled mechanism which may be rendered operative when the clutch is moved in either direction on the cable.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the drawings:—Figure 1 is a perspective view of the device. Fig. 2 is a side elevation. Fig. 3 is a vertical section. Fig. 4 is a transverse section. Fig. 5 is a detail view of one of the speed controlling members.

Referring to the figures by characters of reference 10 and 11 designate opposed similar semi-cylindrical casing sections, these sections being hollowed out and each being provided with ears 30 and 31 outstanding from the lower and upper ends thereof, the corresponding ears on the two sections being adapted to receive screws or other fastening means whereby the two sections can be held securely together. Additional ears 22 extend from the longitudinal edges of the sections 10 and 11 so that, when the two sections are assembled, one pair of ears 22 will be located adjacent one end of the device while the other pair of ears 22 will be located nearer the other end of the device, the two pairs of ears being arranged upon diametrically opposed portions of the casing. The two sections 10 and 11 are provided at their ends with inwardly extending flanges defining openings 14 into which extend bosses 18 formed at the ends of a substantially cylindrical clutch member 15. This clutch member lies close to the inner surfaces of the sections 10 and 11 and is provided with a spiral groove 19 the ends of which merge into axial openings 19′ formed in the centers of the bosses 18.

Pivotally mounted between the ears 22 of each pair is a clutch member 29 having a flat jaw 21 at one end while a handle 25 extends from its other end. The two clutch members 29 are oppositely disposed so that the handles of the respective members normally extend toward the nearest ends of the sections 10 and 11. This will be apparent by referring particularly to Figs. 2 and 3.

As shown in Fig. 3 the longitudinal edges 12 of the sections 10 and 11 are cut away adjacent the ears 22 so as thus to form slots 24 through which the clamping faces 21 of the clutch members 29 are adapted to move.

In order to use the device herein described it is necessary first to insert a rope or cable 20 through one of the axial openings 19′ and then to wind said rope or cable about the cylindrical friction member 15 so that it will lie within the spiral groove 19. The rope or cable is then threaded through the other axial opening 19′ whereupon the device is ready for use.

If the device is mounted upon one end portion of the rope or cable 20, said end portion is attached to a window frame or other supporting structure and the person to descend then sits upon a looped strap 26 which is connected to one pair of ears 30 or 31 by means of straps 27 and 28, as shown in Fig. 1. The friction member 15 and the casing in which it is mounted will thus move downwardly by gravity, the same sliding along the rope or cable 20 which occupies the tortuous passage formed by the axial openings 19′ and the spiral groove 19. If the speed of descent becomes too great, the occupant of the fire escape pulls downwardly on the uppermost handle 25 so that the flat jaw 21 thereof will engage one of the convolutions of the cable or rope 20 and thus retard the downward movement of the device upon the cable. When the device reaches the lower end of the cable or rope, said cable can be inverted and again suspended from the supporting structure whereupon the clutch member 15 will occupy a position directly opposite to that formerly occupied by it. Strap 26 can

be quickly connected to the other end of the casing after which the device can be used as before. Importance is attached to the fact that the two end portions of the device are duplicates so that, after a descent has been made, it is not necessary to slide the device back along the cable to the starting point. Instead the cable can be detached and reversed whereupon the device will assume a position adjacent the upper end of the cable and it merely becomes necessary to readjust the strap 26 to the lower end of the casing.

It will be seen that the two casing sections 10 and 11 can be readily detached, as when it is desired for any reason, to obtain access to the friction member 15. This is particularly necessary in order to thread the cable or rope through and around the friction member. After the rope or cable has been placed in position, the casing is found desirable in that it protects the coiled portion of the cable from injury.

What is claimed is:—

A fire escape including a casing made up of opposed similar semi-cylindrical sections, the meeting longitudinal edges of said sections being recessed, ears outstanding from the casing sections and adjacent the recesses, the recesses in opposed sections cooperating to form slots, oppositely disposed levers fulcrumed between the ears and projecting into the respective slots, a cylindrical friction member seated within the casing, said casing having reduced end openings, bosses upon the ends of the cylindrical clutch member and extending into the openings, said cylindrical friction member being provided with a spiral peripheral groove merging, at its ends, into axial openings in the ends of the clutch member, said openings extending centrally through the bosses, said openings and the spiral groove being adapted to receive portions of a cable, the inner ends of the levers being movable into certain convolutions of the spiral groove for engaging adjacent portions of the cable, said casing being invertible, and outstanding means upon the end portions of the casing for engagement by body supporting means.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOSEPH PAQUET.

Witnesses:

CHARLES J. CORBALLY,

JAMES E. CARROLL.