

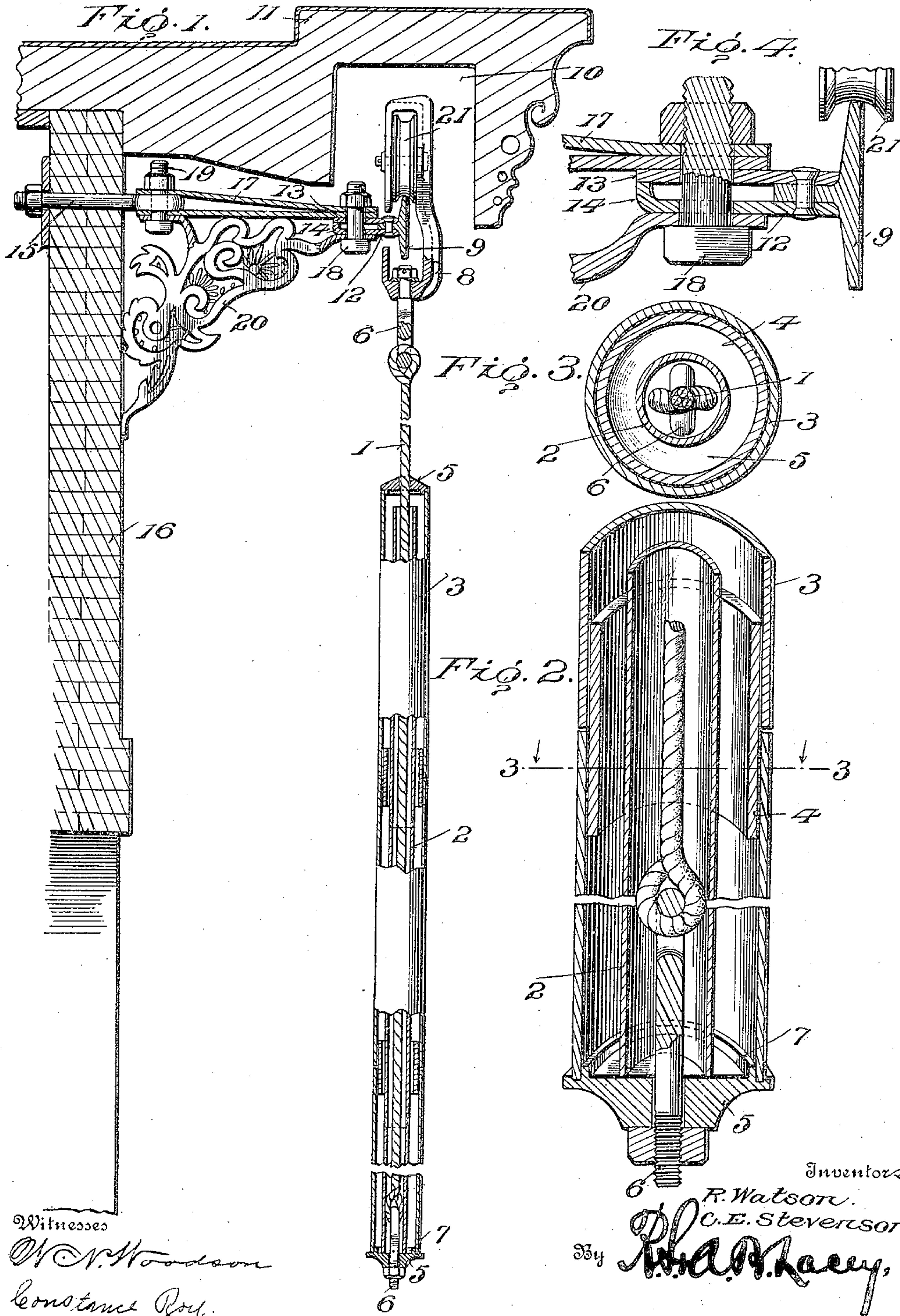
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R. WATSON & C. E. STEVENSON.

FIRE ESCAPE.

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FIRE-ESCAPE.

No. 875,227.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, ROBERT WATSON, residing at Vancouver, British Columbia, Canada, and CHARLES E. STEVENSON, residing at Toronto, Ontario, Canada, subjects of the King of England, (ROBERT WATSON having declared his intention of becoming a citizen of the United States,) have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

When a building, house, or like structure, such as occupied for dwelling or assembly purposes, becomes endangered by fire it is desirable to provide avenues of escape in addition to the usual exits, so that the occupants may be afforded ample opportunity to escape. It frequently happens in large buildings, such as hotels and apartment houses, that the hallways and inner staircases are not available or safe in an emergency from fire because filled with smoke and even flame; hence the urgency for other means of exit.

This invention relates to exterior means for affording an escape from a burning building when the usual interior exits, such as stairs, elevators and the like are cut off, the same providing a slide-pole mounted to run upon an overhead track and adapted to be moved to bring it opposite to, or within convenient reach of, a window, or other opening in the wall of the building from which escape of an imperiled occupant may be required, said slide-pole being of novel formation and normally occupying a position, so as not to detract from the appearance of the building to which the escape may be fitted, and which will preclude its unlawful use, either to enter or to leave the building.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a vertical central section of a slide-pole and adjunctive parts of a fire escape embodying the invention showing the same in operative position. Fig. 2 is a sectional view of the slide-pole showing the parts on a larger scale. Fig. 3 is a horizontal section on the line 3—3 of Fig. 2. Fig. 4 is a sectional view of the track and the supporting means therefor on a larger scale.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The slide-pole forming the essential part of the invention is preferably of composite structure and may be of any length depending upon the height of the building or structure equipped with a fire escape of the present type. In its specific construction, the slide-pole comprises, a cord, rope or cable 1, forming a core, an inner strengthening tube 2, and an outer casing 3, the parts having a concentric arrangement. The cord, rope or cable 1 may be composed of metal or textile strands or may be of any formation, its chief purpose being to give strength to the slide-pole and sustain the load when the same is in effective service.

The tube 2 may be piping such as commonly used in connection with gas and water fixtures and comprises sections or lengths which may be coupled either by screw thread joints or in any usual way. The purpose of the tube 2 is to stiffen the core 1 and to assist materially in holding the outer casing 3 in proper position. The tube 2 may be of any cheap material since it is not designed to contain any fluid and its surface need not be highly finished. The casing 3 is usually about three or four inches in diameter, more or less, and may be of brass, copper or other metal not affected by dampness or the atmosphere and which may be highly polished or may be smooth upon its exterior to admit of a person sliding freely upon the same. The casing like the tube 2 is composed of sections which abut to form a neat joint between the ends of adjacent sections or lengths so as to obviate projecting parts which would be liable to catch the clothing or injure the hands of a person sliding down the pole. A coupling sleeve 4 overlaps the ends of adjacent sections or lengths of the casing and has an end portion soldered, brazed, or otherwise attached to the end of one section and adapted to slip within the contiguous end of the adjacent section. Caps 5 are fitted to the extremities of the casing 3 and are centrally apertured to admit of the passage of the core piece 1 and the lower fastening 6, said cap pieces having flanges 7 which enter the casing 3 and hold the parts in proper position. The lower fastening 6 consists of an eye bolt,

the lower end of the cord, or like part, 1 being secured in the eye through the opening of the lower cap 5 and threaded to receive a nut. The upper end of the cord, or like member, 1 is provided with a similar fastening which forms connecting means between the slide-pole and the frame 8 of a trolley or carriage.

A track 9 is provided overhead to support the trolley, or carriage of the slide-pole and thereby admit of moving the latter along the building, or other structure, to the required point from which an occupant may desire to escape in an emergency. In the preferable arrangement, the track 9 is located at, or near, the top of the building to admit of the fire escape being brought to any window, or other opening, in the wall thereof. It is preferred to locate the track so that the trolley, or carriage 8, may operate in a channel, or space 10, provided in the eaves, or cornice 11 of the building. This construction admits of the eaves, cornice, or other projecting part of the building, affording a protection for the track, the trolley and the track supporting means.

The track 9 may be a metal bar, having any cross sectional outline, the same being preferably of T form in transverse section, the bar being arranged with the medial flange facing inward to receive the supporting means employed before connecting the track to the building. A lower plate 12 is secured to the under side of the horizontal flange of the track, whereas a companion plate 13 is attached to the upper side of said flange, one of the plates having its inner edge portion offset as at 14, a distance corresponding to the thickness of the aforesaid horizontal flange of the track to cooperate therewith to space the two plates 12 and 13 apart a proper distance. An eye bolt 15, or like fastening is secured to the wall 16 of the building, or structure, and receives a supporting arm 17 which has its outer end connected to the plates 12 and 13 by means of a bolt 18, or like fastening. The arm 17 is formed of companion members having their inner ends spaced apart to receive between them the eye of the fastening 15 and having their outer ends brought together and pierced to receive the fastening 18. A bolt, or fastening, 19 connects the members of the arm 17 to the projecting end of the eye bolt 15. It is to be observed that the arm 17 is connected to the fastening 15 and to the track supporting member by single fastenings; hence, said arm is adapted to receive a limited pivotal movement and thereby adapt itself to contraction and expansion of the track, due to changes of temperature. To give additional strength to the supporting means, a bracket 20 is interposed between the track and the front of the building, or structure, the upper portion of said bracket being secured to the parts 15 and 12 and 13 by means of fasten-

ings 19 and 18, whereas the inner portion of the bracket simply bears against the front of the wall 16; hence the bracket is adapted to move with the arm 17 accordingly as the track 9 lengthens or shortens.

The trolley or carriage comprises a suitable frame 8 and a wheel 21, the latter being mounted upon a pin, or bolt, connecting the upper members of the frame, said wheel being grooved to receive the upper portion of the track 9 so as to prevent lateral displacement of the carriage. The lower portion of the arm 8 is vertically apertured to receive the stem of the fastening 7 by means of which the slide-pole has swivel connection with the trolley or carriage so as to turn and obviate torsional strain. In adapting the invention to a building, or like structure, a track 9 extends across the front thereof any required distance so as to enable the slide-pole to be brought opposite to any window, or other opening, in the front or wall, or within convenient reach thereof. The trolley, or carriage, is mounted to travel upon the track line and the slide-pole sustained therefrom extends to within convenient reach of the ground to enable a person to operate the slide-pole from below to bring it to the required point of use. A person desiring to use the appliance to effect an escape from the building, grasps the slide-pole and embraces the same either with the hands, arms or legs, the rapidity of the descent being controlled by the degree of pressure exerted against the sides of the slide-pole, and the amount of resistance afforded by the friction thus brought into play.

It will be observed that the slide-pole affords ready and convenient means for a rapid escape of the occupants from a burning structure, not being required to descend a ladder by a step by step movement, or to necessitate the manipulation of brackets or other appliances. The slide-pole when not required for immediate use, may be moved to any convenient position and may be housed, or otherwise secured, to prevent unwarranted use thereof, or to prevent tampering therewith, or the appropriation thereof.

Having thus described the invention, what is claimed as new is:

1. In a fire escape, a slide pole of composite construction, comprising a suspended flexible strain sustaining core piece, a stiffener fitted to the core piece and supported thereby, a casing encircling the core piece and its stiffener and having its outer side smooth and free from projecting parts to admit of a person sliding down thereon freely, and positive connecting means between the core piece and casing to support and space the latter from the said core piece.

2. In a fire escape, a slide pole comprising a flexible strain sustaining core, a tube encircling said core and comprising sections and

adapted to stiffen the said core, and a casing enveloping the said core and its strengthening or stiffening tube and polished upon its exterior and giving to the slide pole the desired diameter to enable the user to obtain a safe hold.

3. In a fire escape, a slide pole comprising a flexible strain sustaining core piece, a stiffening tube encircling said flexible core piece and composed of jointed sections, and a sliding casing inclosing the core piece and its stiffening tube and likewise composed of jointed sections, the joints of the casing being

arranged out of register with the joints of the tube.

In testimony whereof we affix our signatures in the presence of two witnesses.

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