(No Model.) 4 Sheets—Sheet 1.

J. S. LEWIS.

FIRE ESCAPE.

No. 440,045. Patented Nov. 4, 1890.

Fig. 3.

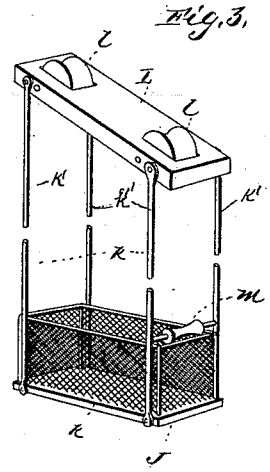


Fig. 2.

WITNESSES

Chas. L. Taylor

J. Frank Greenwood

INVENTOR

Jas. S. Lewis

by E. W. Anderson

his Attorney

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

(No Model.) 4 Sheets—Sheet 2.

J. S. LEWIS.

FIRE ESCAPE.

No. 440,045. Patented Nov. 4, 1890.

Fig. 1.

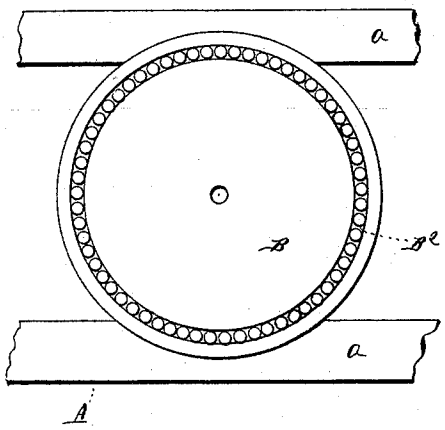


Fig. 8.

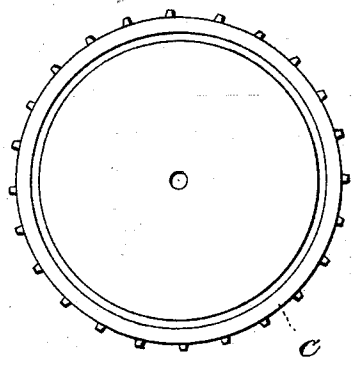


Fig. 2.

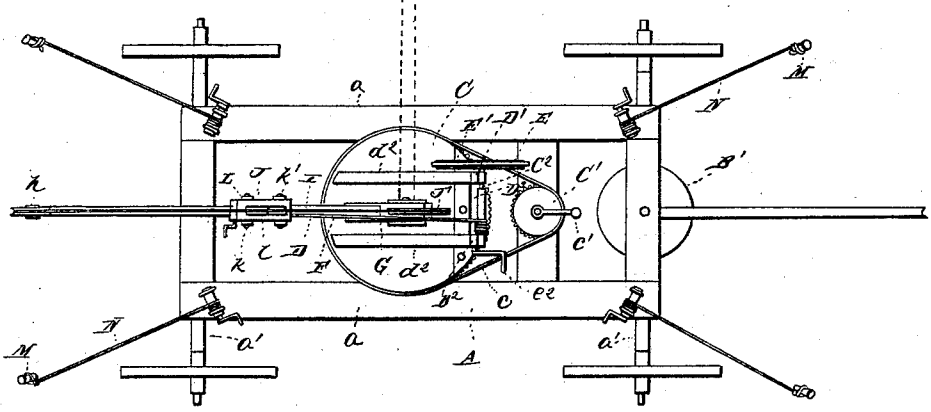
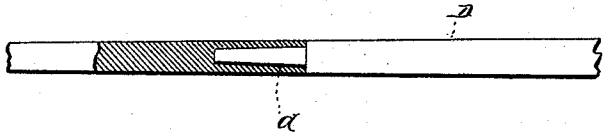


Fig. 11.



WITNESSES

Chas. L. Taylor,

J. Frank Greenwood.

INVENTOR

Jas. S. Lewis.

by E. W. Anderson

his Attorney

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

(No Model.) 4 Sheets—Sheet 3.

J. S. LEWIS.

FIRE ESCAPE.

No. 440,045. Patented Nov. 4, 1890.

Fig. 6.

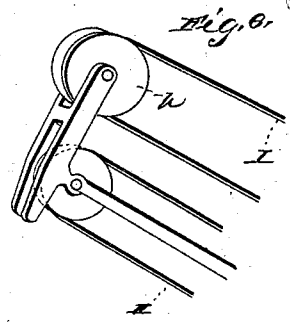
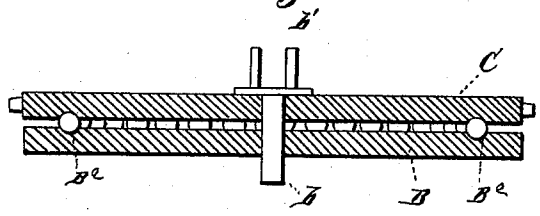


Fig. 4.

Fig. 5.



WITNESSES

Chas. L. Taylor,

T. Frank Greenwood

INVENTOR

Jas. S. Lewis

by E. W. Anderson

his Attorney

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

(No Model.) 4 Sheets—Sheet 4.

J. S. LEWIS.

FIRE ESCAPE.

No. 440,045. Patented Nov. 4, 1890.

Fig. 9.

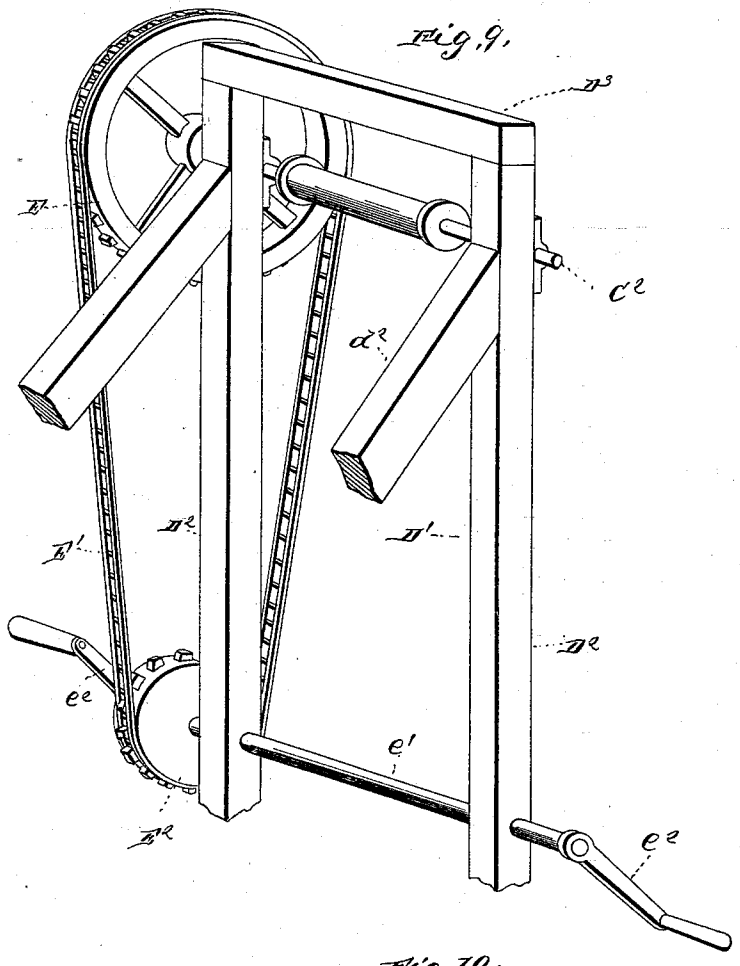
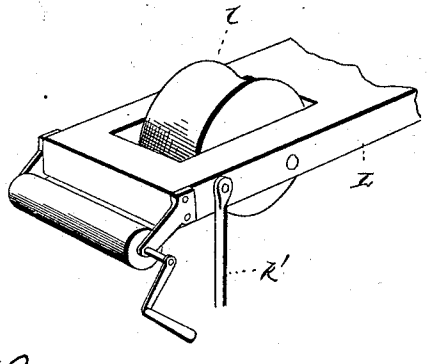


Fig. 10.



WITNESSES

Chas. L. Taylor,

P. Pond Greenwood

INVENTOR

Jas. S. Lewis

by C. W. Anderson

his Attorney

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

UNITED STATES PATENT OFFICE.

JAMES S. LEWIS, OF KIMBALL, VIRGINIA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 440,045, dated November 4, 1890.

Application filed July 1, 1890. Serial No. 357,365. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. LEWIS, a citizen of the United States, and a resident of Kimball, in the county of Page and State of Virginia, have invented certain new and useful Improvements in 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of my device in side elevation. Fig. 2 is a plan view. Fig. 3 is detail view; Figs. 4, 5, 6, 7, 8, 9, 10, and 11, detail views.

My invention relates to improvements in fire-escapes; and it consists in the provision of a suitable carriage or truck provided with a turn-table on which is mounted a sectional shooting-pole; further, in the provision of a set of guide and brace ropes, a carrier adapted to move theron, and an operating-rope; further, in the provision of means for operating the said parts, and, finally, in the general construction and combination of features, all of which will be fully described, specifically claimed, and clearly illustrated in the accompanying drawings.

In the drawings, A represents the truck-frame mounted on suitable wheels, and consisting of the side pieces *a*, axletrees *a'*, circular platform B, and fifth-wheel B'.

C represents a circular turn-table, which is mounted upon the circular platform of the truck and pivotally secured thereto by the bolt or casting *b*. The said platform is provided near its outer circumference with an annular groove B^2, which is adapted to receive friction balls or rollers for facilitating the movement of the turn-table. This turn-table is provided on its periphery with sprocket-teeth, which are adapted to engage a sprocket chain *c*, which passes around the said table, and to and around a small sprocket-wheel C', mounted upon the truck-frame, and provided with an operating-crank *c'*, by the movement of which the table may be turned to the desired point.

D represents the pole, which may be formed in sections, said sections being connected by a joint *d*. The lower end of this pole is pivotally secured to the turn-table by means of the bolt or casting *b*, hereinbefore referred to, the upper end of the said bolt or casting being provided with a slot *b'*, which is adapted to receive the lower end of the pole D, which is pivotally secured therein by means of the pin b^2. The lower end of said bolt or casting is firmly keyed or secured beneath the platform B.

D' represents a frame, which is secured at at its lower end to the turn-table C, and adapted to move therewith, and is supported by the braces d^2. This frame D' consists of the two uprights D^2, which are secured to opposite sides of the turn-table, and connected at their upper ends by cross-piece D^3. Near the upper end of this frame, on a shaft C^2, is mounted a sprocket-wheel E, provided with a sprocket-chain E', extending to and passing over a smaller sprocket-wheel E^2, which is mounted on a shaft *e'* near the lower end of said frame, said shaft being provided with the cranks e^2. A rod or cable F is connected at one end to the windlass-wheel E and at its opposite end to the intermediate portion of pole D, as shown. It will be seen that by this means the operation of the cranks e^2 will raise or lower the pole D.

In the drawings, Fig. 2, the pole is shown as being swung around to one side of the truck; but when in normal position it is adapted to project rearwardly therefrom.

G represents a frame through which the pole D passes, said frame being secured to the pole. The pole is held or braced by means of the rope H, one end of which is secured to the frame G, passing down around a groove in the lower end of the pole, thence up along the under side of the pole to its upper end, passing over a pulley attached to said end, thence back along the upper side of the pole to frame G, where it passes around and is connected to a small crank-wheel G', mounted on said frame, and by means of which the brace-rope is operated.

I represents the sprocket-carrier rope or chain, one end of which is attached to the carrier J, passing down and over a sprocket-wheel J', mounted on the upper end of frame G, thence up along the upper side of the pole above rope or brace H, where it passes around

a small sprocket-wheel *h*, mounted on a cross-piece secured to the pole, and thence back to and attached to the carrier. This rope and the carrier attached thereto, as will be hereinafter described, are operated by a sprocket-chain, which passes from the wheel J′ to and around a sprocket crank-wheel K, which is mounted at the opposite end of the frame G within reach of the ground or from the platform and turn-table.

The carrier J consists of the carriage or body portion *k*, to which are pivotally secured the four uprights *k′*, on the upper ends of which are mounted grooved friction-rollers *l*, which engage the upper part of the brace-rope H and ride thereon, the body portion of the carrier being suspended beneath the pole. This body portion preferably consists of a cage or basket of wire-netting or other suitable non-combustible material. The top portions of the uprights *k′* are connected by the hood L, to which they are pivotally secured, and to the opposite ends of this hood are connected the ends of the rope I, as hereinbefore described. The pivotal connection of the uprights *k′* to the body portion of the carriage and to the hood will allow the carrier to keep a horizontal position at any and all degrees of elevation of the pole.

Between the two rear uprights *k′*, near their central portions, and having bearings in the same, is a grooved friction-roller *m*, which is adapted to engage and ride on the under side of the lower brace-rope H, thus forming a brace or support for keeping the carrier steady. It will be seen that the rope or cable H acts both as a brace for the pole and as a guide or track for the carrier. The friction-wheels *l* are grooved, in order that they may run on the upper side of the pole, thus taking the strain partially from the guide-rope.

In Fig. 4 the pole D is shown as being disjointed, the lower end of the upper section resting upon the turn-table and supported by passing through a slot in the frame G, as show in the said figure.

The truck is provided at each corner with the anchors M, which are adapted to be secured in the ground when the device is in use and serve to hold the truck firmly in position. These anchors are connected to the truck by means of ropes or chains N, and a small windlass is provided at each corner for taking up the slack after the anchors are driven into or secured to the ground.

The operation is as follows: The truck is driven to the desired position, the anchors made fast, the sections of the pole jointed together, and the ropes and carrier adjusted in position. The turn-table is then operated to swing the pole to the desired position upon the building, and is elevated to the desired height by the operation of crank *e*. The carrier J is then pulled up to the window, where it may be entered by the person or persons escaping, and the carriage lowered. When the truck is in motion, the pole may be swung around corners and clear of obstacles by operating the crank *c′*.

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

1. The combination, with the truck, the turn-table mounted thereon, and the sprocket-gear for operating said turn-table, of the sectional pole pivotally secured to said turn-table, and the upright frame also carried on the turn-table and having mounted thereon the sprocket-gear mechanism for operating the pole and having a connection with the intermediate portion of said pole, substantially as set forth.

2. The combination, with the sectional pole pivotally mounted on the turn-table of the truck, of the brace-rope secured to a frame mounted on said pole, said rope extending around the ends of said pole and serving also as a guide for a carrier or carriage suspended from and adapted to move thereon, substantially as described.

3. In a fire-escape, the combination, with the truck and its platform having the circular groove or channel, of the turn-table mounted thereon and having a corresponding groove, said table having the peripheral sprocket-teeth and carrying the sectional pole and the upright frame having the pole-operating sprocket-gear mechanism thereon, and the friction balls or rollers adapted to work in the said grooves or channels, substantially as set forth.

4. The combination, with a truck having a turn-table mounted thereon, a sectional pole pivotally secured to said turn-table, sprocket wheels and gear for operating said table and pole, and a frame mounted on the said pole, of a rope or cable acting as a brace for the pole and as a guide for a carrier suspended from and adapted to move thereon, a carrier provided with friction rollers or wheels for engaging said guides, an operating-rope connected to said carrier, and crank-wheel and gear for operating said carrier mounted on the frame on the said pole, substantially as described.

5. The fire-escape comprising the truck and the anchors therefor, the turn-table mounted on the truck, and the sprocket-gear for operating the same, the sectional pole pivotally secured to the turn-table, the cross-frame mounted on the pole, the rope serving as a brace for said pole and as a guide for a carrier, the carrier and its operating-rope, and the sprocket-gear mechanism mounted on the turn-table for operating the pole, substantially as described.

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

JAMES S. LEWIS.

Witnesses:
A. J. MASON,
C. T. HOELZMAN.