(No Model.)

G. R. JENKINS.

FIRE ESCAPE.

No. 294,629. Patented Mar. 4, 1884.

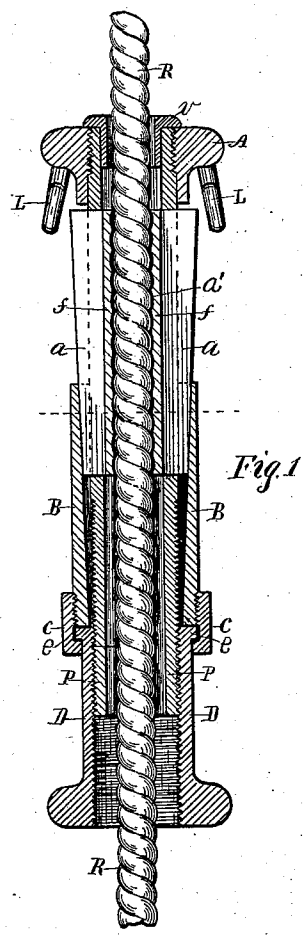


Fig. 1

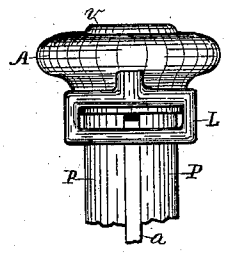


Fig. 2

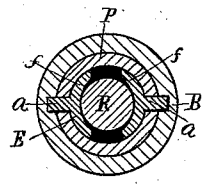


Fig. 3

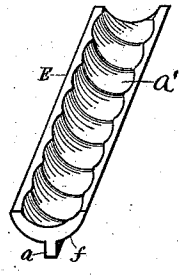


Fig. 5

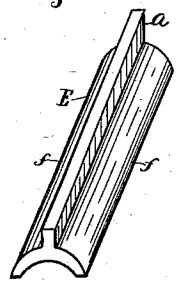


Fig. 4

Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE R. JENKINS, OF WESTON, KENTUCKY.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 294,629, dated March 4, 1884.

Application filed May 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. JENKINS, a citizen of the United States, residing at Weston, county of Crittenden, State of Kentucky, have invented a new and useful Fire-Escape, of which the following is a specification.

My invention has for its object improvements in the construction of fire-escapes which play upon and grip a vertically-suspended rope, whereby greater strength is secured, the action made more reliable, and the operation facilitated.

In the drawings forming a part of this specification, Figure 1 is a vertical section with a rope in full located through the hollow center; Fig. 2, a side elevation of the upper end; Fig. 3, a cross-section on the dotted line in Fig. 1; Fig. 4, a rope-gripper in perspective; and Fig. 5, same, showing the other side.

The tubular stock P is threaded around its lower portion, Fig. 1, and slotted in two opposite sides of the upper portion. A crown, A, is screwed on the top and secured with a set-screw. Loops L L are connected with the crown, with which loops the body-belt (not here shown) is to be connected. Rope-grippers E are made as in Figs. 4 and 5, having semi-cylindrical portion *f* provided with diagonal corrugations *a'*, adapted to fit the strands of the rope R, and with a beveled flange, *a*, located in the slots of the stock P. The flanges *a a* are the widest at the upper end. The portions *f* rest against the sides of the rope R, Fig. 3. A vertically-playing cylinder, B, surrounds the stock P, for compressing the gripper E. This cylinder is provided with beveled grooves, which receive the flanges *a a* of the grippers. The bevel of these grooves is on an angle corresponding to that of the flange *a*. The compressing-cylinder B is operated by a hand-tube, D, coupled with its lower end by means of a threaded collar, *c*, screwed onto the end of said cylinder B. The collar *c* has an internal flange at its lower edge located under an external flange, *e*, of the hand-tube D, by which means the hand-tube is free to turn and carries the cylinder B up and down. The hand-tube is threaded internally throughout its length, and screws onto the threaded portion of the stock P. A thimble, *v*, is inserted in the upper end of the stock P, which prevents the parts of said stock from becoming compressed, and thus encroaching upon the desired width of the slots and binding the flanges *a a* of the grippers E. This thimble *v*, being perforated to the size of the rope used, serves to accurately center said rope in the device.

In the operation, the operator runs the cylinder B up the stock by turning the hand-tube D until the rope R is rigidly gripped by the portions *f f* of the grippers E. After securing the body-belt about the waist and throwing the weight of the person on the device, which holds said person suspended, the operator, with his hand all the time on the hand-tube D, gently turns the same, lowering the cylinder B, which releases the rope from the grippers E and allows the operator to descend. The rate at which the operator goes down the rope is readily controlled; or, if desired, he can stop at any point by again compressing the grippers. The parts, being thus threaded and screwed together, are all detachable from each other.

Having thus described my invention, what I claim is—

1. In a fire-escape, the combination, with the tubular stock having the slots and the grippers loosely located therein, of a vertically-playing compressing-cylinder and means for operating it, substantially as set forth.

2. The combination of the semi-cylindrical grippers having the beveled flange, a tubular stock, and means for compressing said grippers, substantially as described and shown.

3. The stock provided with the crown, having the belt-loops, in combination with the grippers, the compressing-cylinder, and the hand-tube, substantially as specified and shown.

4. In a fire-escape, the combination of the slotted tubular stock having the lower portion threaded, the semi-cylindrical grippers having the beveled flange, the compressing-cylinder having the beveled grooves, the internally-threaded hand-tube flanged at the upper end, and the flanged coupling-collar, all substantially as described and shown.

5. The tubular slotted stock provided with the crown and the internal thimble, in combination with the grippers, the compressing-cylinder, and the hand-tube, substantially as set forth.

6. The combination of a rope, the semi-cylindrical grippers adapted to grip the rope in

its straight vertical position, the compressing-cylinder, and means for operating the same, all substantially as specified and shown.

7. The combination of the tubular slotted stock, the internal thimble, the grippers having the diagonal corrugated semi-cylindrical surface and the compressing-cylinder, and the hand-tube, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in the presence of two witnesses.

GEORGE R. JENKINS.

Witnesses:
W. H. LOOMIS,
WM. MASON.