No. 731,708. PATENTED JUNE 23, 1903.

J. E. QUINN.

PORTABLE FIRE ESCAPE.

APPLICATION FILED APR. 13, 1903.

NO MODEL

Fig. 1.

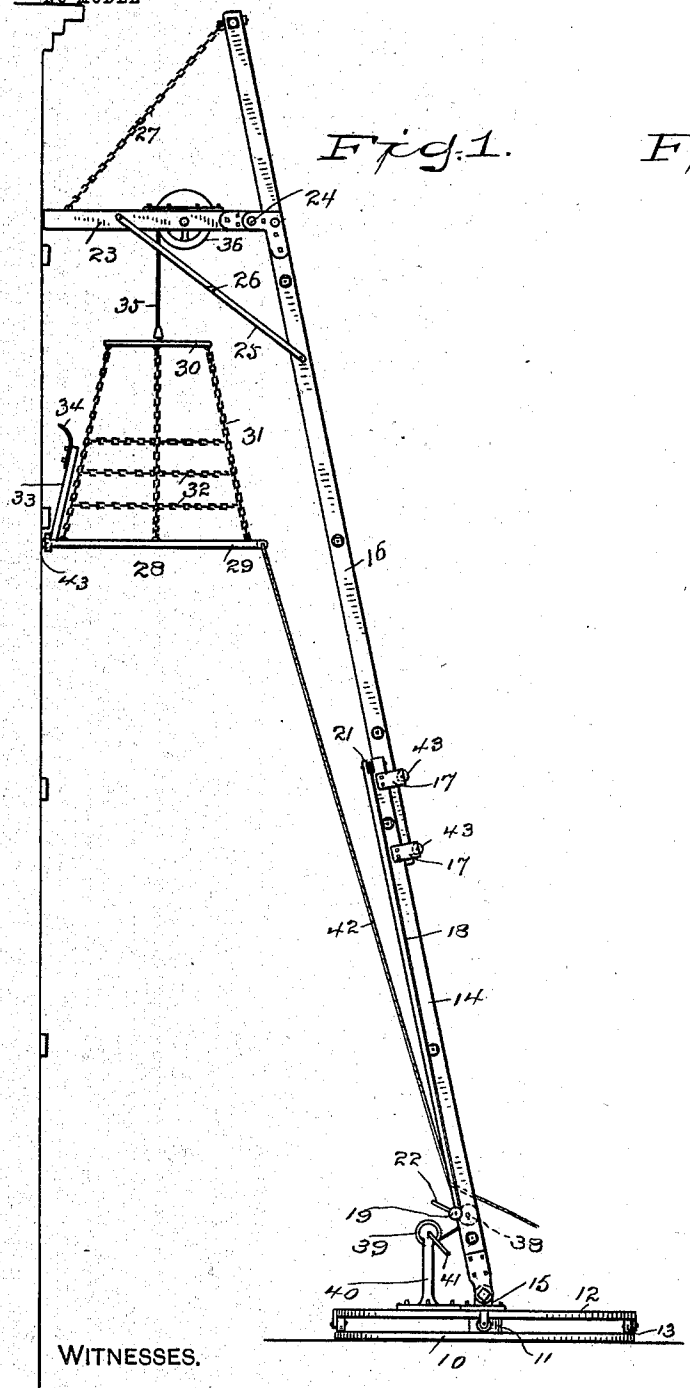
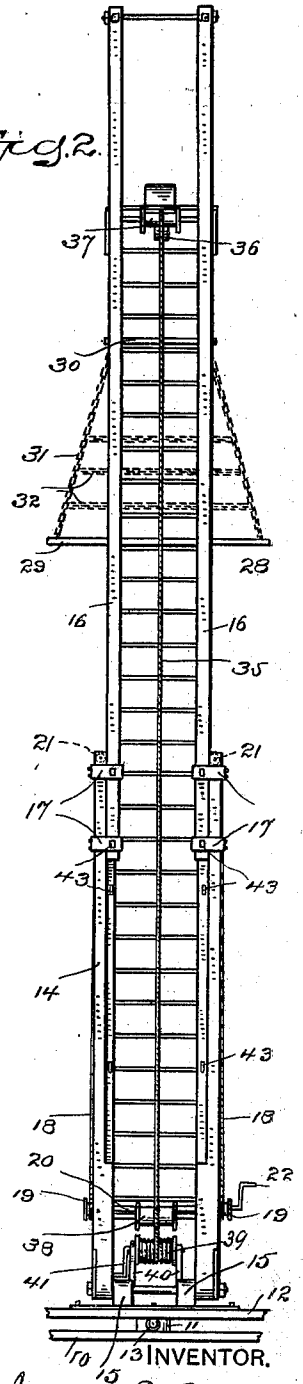


Fig. 2.



WITNESSES.

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No. 731,708. Patented June 23, 1903.

UNITED STATES PATENT OFFICE.

JAMES E. QUINN, OF STAMFORD, CONNECTICUT.

PORTABLE FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 731,708, dated June 23, 1903.

Application filed April 13, 1903. Serial No. 152,445. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. QUINN, a citizen of the United States, residing at Stamford, county of Fairfield, State of Connecticut, have invented a new and useful Portable Fire-Escape, of which the following is a specification.

My invention has for its object to provide a simple, strong, easily-operated, and reliable fire-escape for use in connection with moderately-high buildings, that may be readily attached to a hose-truck or to any heavy wagon, so as to be portable, or may be operated from the ground, if preferred.

With this and other objects in view the invention consists in certain constructions and in certain parts, improvements, and combinations, which will be hereinafter described, and then specifically pointed out in the claim hereunto appended.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation illustrating my novel fire-escape in use, and Fig. 2 is a rear elevation corresponding therewith.

My novel fire-escape comprises, essentially, an extension-ladder the upper section of which is provided with a folding arm adapted to rest against a building and a collapsible cage carried by a rope or chain passing over a pulley on the arm and down the ladder.

10 denotes a platform which in use may rest upon the ground or may be bolted, clamped, or otherwise rigidly secured to a hose-truck or other heavy wagon, (not shown,) as the support for the platform forms no portion of my present invention. The platform is provided with a central stud 11, which serves as a pivot for a turn-table 12, which travels upon antifriction-rollers 13, that travel on the platform.

14 denotes the lower section of an extension-ladder, which is hinged to heavy lugs or ears 15 upon the turn-table.

16 denotes the upper section of the ladder. In the present instance I have shown a two-section ladder, although of course the length of the sections and the number of sections used is a matter within the judgment of the constructor and will depend upon the special conditions of use to which the device is to be applied. I have shown the side pieces of the upper section as adapted to slide within the lower section, which is provided with heavy metallic straps 17, which inclose the side pieces of the upper section, antifriction-rollers 43 being provided in order to reduce friction to the minimum. The upper section is raised by means of ropes or chains 18, which wind upon drums 19 on a shaft 20, journaled on the lower section, and pass upward along the side pieces of the lower section over pulleys 21 at the upper ends of the side pieces of the lower section and are attached to the lower ends of the side pieces of the upper section. As this is a common construction, it is not thought to require illustration in detail.

22 denotes a crank for rotating the shaft to raise the upper section, which is locked in any desired position by any suitable device, as by a pawl and ratchet. (Not shown.) Near the upper end of the upper section is a folding arm 23, which is hinged to the side pieces, as at 24. This arm is supported when in operative position by braces 25, one only appearing in the drawings, jointed at their mid-length, as at 26, and is additionally supported by chains 27, one only appearing in the drawings, which are connected to the outer end of the arm and to the upper ends of the side pieces of the upper section. When the arm is not in use, the chains are disconnected, the braces fold inward, and the arm drops downward. In use the arm rests against the side of the building, as clearly shown in Fig. 1.

The removal of human beings and valuables from a burning building is effected by means of a collapsible cage 38. This cage consists of a platform 29, a top piece 30, vertical chains 31, connecting the top piece with the platform, and side chains 32, connecting the vertical chains, excepting at the front, which is provided with a platform-gate 33, hinged to the platform and adapted to swing over against the chains to close the cage or to swing outward and rest upon a window-ledge, forming a firm gang-plank upon which a person may step into the cage. The top of the platform-gate is provided with hooks 34 for engagement with the inner side of a window-ledge to prevent the possibility of the cage shifting while being loaded. A rope or chain 35 passes from the top piece of the cage over

a pulley 36 on the folding arm, then over a pulley 37 on the upper section, then downward and over a pulley 38, near the bottom of the lower section, and winds upon a drum 39, journaled in suitable brackets 40 upon the turn-table.

41 denotes a crank for winding the drum.

A suitable friction device and pawl and ratchet are of course provided for the drum, but are not shown, as specifically they form no part of the present invention.

The use of my novel fire-escape will be obvious from the description already given. Before raising the upper section of the ladder the folding arm is swung upward to the operative position and is secured there by attaching chains 27 to the upper ends of the side pieces of the upper section. The upper section is then raised to the desired height by rotating drums 19, and arm 23 is placed against the side of the building. The cage is then raised by rotation of drum 39. A guy-rope 42 is attached to the platform of the cage, so that it may be swung out of contact with a building while being raised and lowered. I preferably also provide the front of the platform with antifriction-rollers 43, which permit it to slide freely up and down the front of a building should it come in contact therewith. As the cage is collapsible and the arm folds downward parallel with the upper section of the ladder, it will be seen that the device requires but little room when not in use.

Having thus described my invention, I claim—

A fire-escape comprising an extension-ladder having an arm hinged thereto, a collapsible cage comprising a platform, a top piece, upright flexible connections between the platform and top piece, horizontal flexible connections between the upright connections on three sides, and a gate for the fourth side, said gate being hinged to the platform of the cage and adapted to form a gang-plank, said gate having also hooks at its free edge, and a rope extending from the top piece of the cage along the hinged arm and down the ladder, whereby the cage may be raised and lowered.

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

JAMES E. QUINN.

Witnesses:
PETER J. DOYLE,
CLEMENT A. FULLER.