J. A. IRBY.

PORTABLE FIRE ESCAPE.

APPLICATION FILED SEPT. 18, 1911.

1,085,207. Patented Jan. 27, 1914.

2 SHEETS—SHEET 1.

Fig. 1.

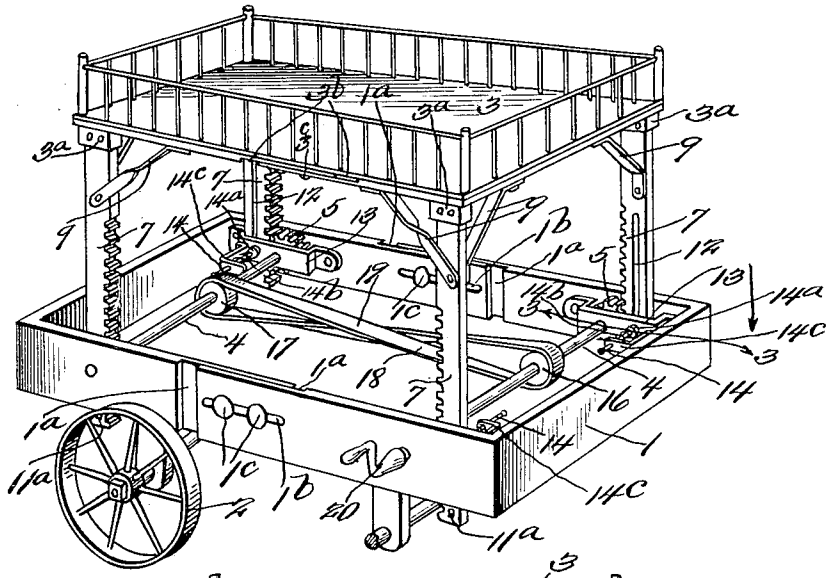
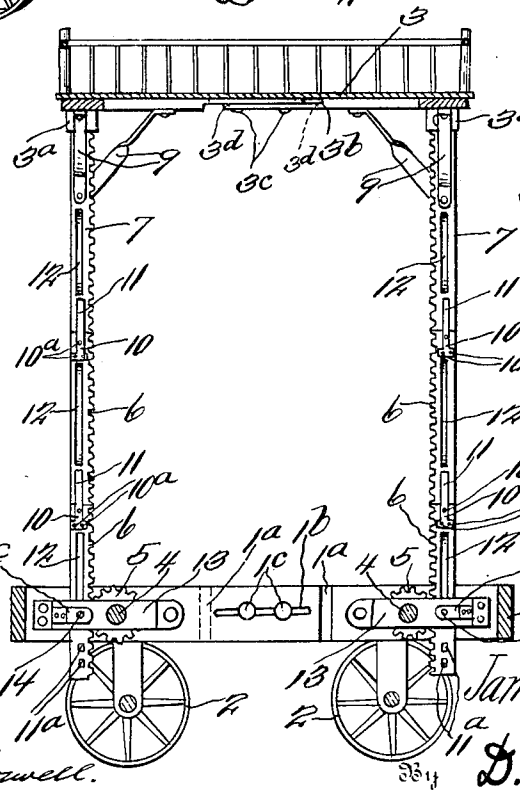


Fig. 2.



Witnesses

Frances E. Boswell.

C. E. Frothingham.

Inventor

James A. Irby

By D. Swift & Co.

Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

J. A. IRBY.

PORTABLE FIRE ESCAPE.

APPLICATION FILED SEPT. 18, 1911.

1,085,207.

Patented Jan. 27, 1914.

2 SHEETS—SHEET 2.

Fig. 3.

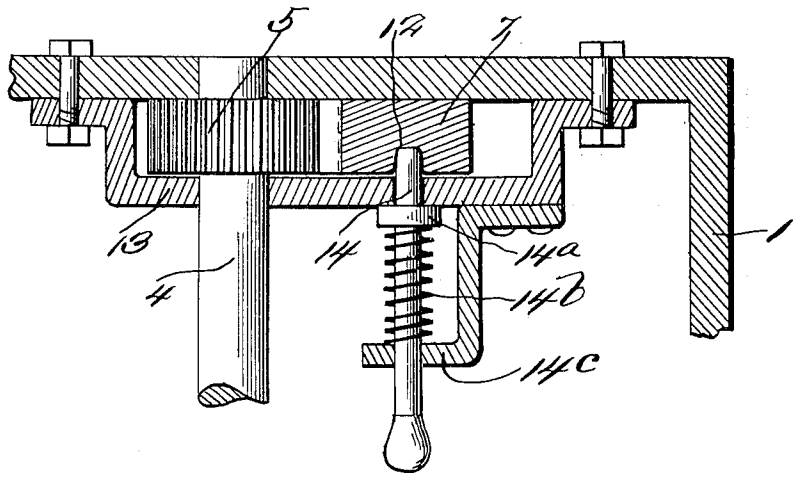


Fig. 4.

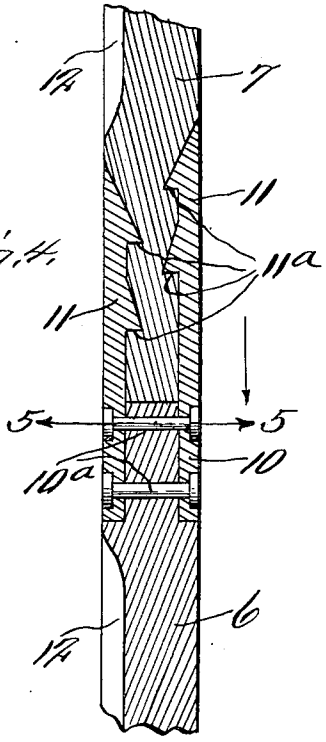
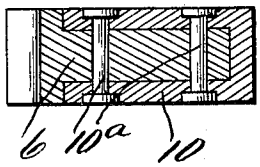


Fig. 5.



Witnesses

Francis T. Boswell.

C. E. Frothingham,

Inventor

James A. Irby,

By D. Swift & C.

Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES A. IRBY, OF WALKERTON, INDIANA.

PORTABLE FIRE-ESCAPE.

1,085,207. Specification of Letters Patent. Patented Jan. 27, 1914.

Application filed September 18, 1911. Serial No. 650,066.

To all whom it may concern:

Be it known that I, JAMES A. IRBY, a citizen of the United States, residing at Walkerton, in the county of St. Joseph and State of Indiana, have invented a new and useful Portable Fire-Escape; and I do hereby 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.

This invention relates to a new and useful portable extensible fire escape.

The invention in its broadest scope aims as its primary object to provide a fire escape, which may be driven by any suitable means, and which may be arranged adjacent to a burning building, for removing the occupants therein by means of an extensible frame having a platform, which platform when filled may be lowered, thereby permitting the occupants of the building to escape in safety.

The invention comprises further features and combination of parts as hereinafter set forth, shown in the drawings and claimed.

In the drawings:—Figure 1. is a view in perspective of a portable fire escape constructed in accordance with the invention, showing the moving parts in their lowered positions. Fig. 2. is a view in section and partly in elevation showing the moving parts in their elevated or extended positions. Fig. 3 is a sectional view on line 3—3 of Fig. 1. Fig. 4 is a detail view showing clearly the coupling connection between two sections of one of the extensible members. Fig. 5 is a sectional view on line 5—5 of Fig. 4.

Referring more especially to the accompanying drawings 1 designates a base frame, which is provided with wheels 2, whereby the same may be propelled from place to place. The shafts of these wheels may be supplied with power by any suitable means (not shown).

If desired this fire escape may be drawn in the rear of other fire controlling devices of a fire department, or it may be drawn by horse power separate of other devices.

The base frame 1 at each end is provided with shafts 4 which are mounted with suitable bearings. Movable with the shafts 4 are the gears 5, which mesh with the rack sections 6 and 7. The upper rack sections 7 support the platform 3, and are suitably braced with relation thereto with the brace bars 9, in order to afford a sufficient amount of rigidity.

The rack sections are provided with coupling devices 10. These coupling devices 10 comprise the spring members 11, which are secured by the rivets or bolts 10^a to one end of each rack section. The spring members 11 are provided with teeth 11^a, to engage recesses of one end of each rack section, as shown clearly in Fig. 4.

Each rack section is provided with a groove 12 to receive the spring tensioned pin 14. Each pin 14 is mounted in a bracket 14^c, between a portion of which and a collar 14^a of each pin or bolt 14 a spring 14^b is arranged. Each spring 14^b acts to hold each pin or bolt 14 in the groove of each section, so as to hold each rack section in mesh with each of the gears 5. The pins or bolts 14 not only hold the rack sections in mesh with the gears 5, but also act as guides, as well as holding the rack sections erect.

The base frame 1 comprises two parts, the sides of which are provided with correspondingly shaped recesses 1^a, so that the sides of the two parts of the frame 1 may overlap as shown in Fig. 1. The recessed portions of the sides of the two parts of the frame 1 are provided with elongated slots 1^b, to receive the usual form of bolts or other means 1^c, whereby the two parts of the frame 1 may be held in adjusted positions relative to one another. By this structure the frame 1 may be lengthened or shortened, as may be required. The platform 3 may be correspondingly lengthened or shortened with relation to the frame 1, by reason of the fact that it also comprises two parts, which are adjustably connected by the recessed portions 3^b and the bolts 3^c. The uppermost rack sections are secured in the sockets 3^a of the platform 3, in any suitable manner. The shafts 4 are provided with pulleys 16 and 17, over which the belt 18 travels. The belt 18 crosses at 19, so that the gears 5 may rotate in the proper directions, to cause the rack sections to be extended. One of the shafts 4 is provided with a crank handle 20, whereby motion may be imparted to the shafts.

From the foregoing it will be observed that a novel, simple and efficient portable fire escape has been devised, and one which has been found to be practical.

The invention having been set forth, what is claimed as new and useful is:—

A fire escape comprising a frame having guide straps, racks slidably mounted in the guide straps, means mounted in the straps and being operated for moving the racks, a platform supported upon the racks, said racks being composed in sections, coupling members for detachably coupling the sections of each rack and embedded in the sections, each section having closed end grooves, and spring tensioned securing devices carried by the straps to engage the grooves for guiding the racks and holding the racks disengageably in gear with the operating means.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES A. IRBY.

Witnesses:
ED. R. MONROE,
ELIZABETH A. GARVER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."