

(No Model.)

W. WISE.
FIRE ESCAPE.

Patented Mar. 18, 1884.

No. 295,320.

Fig. 1.

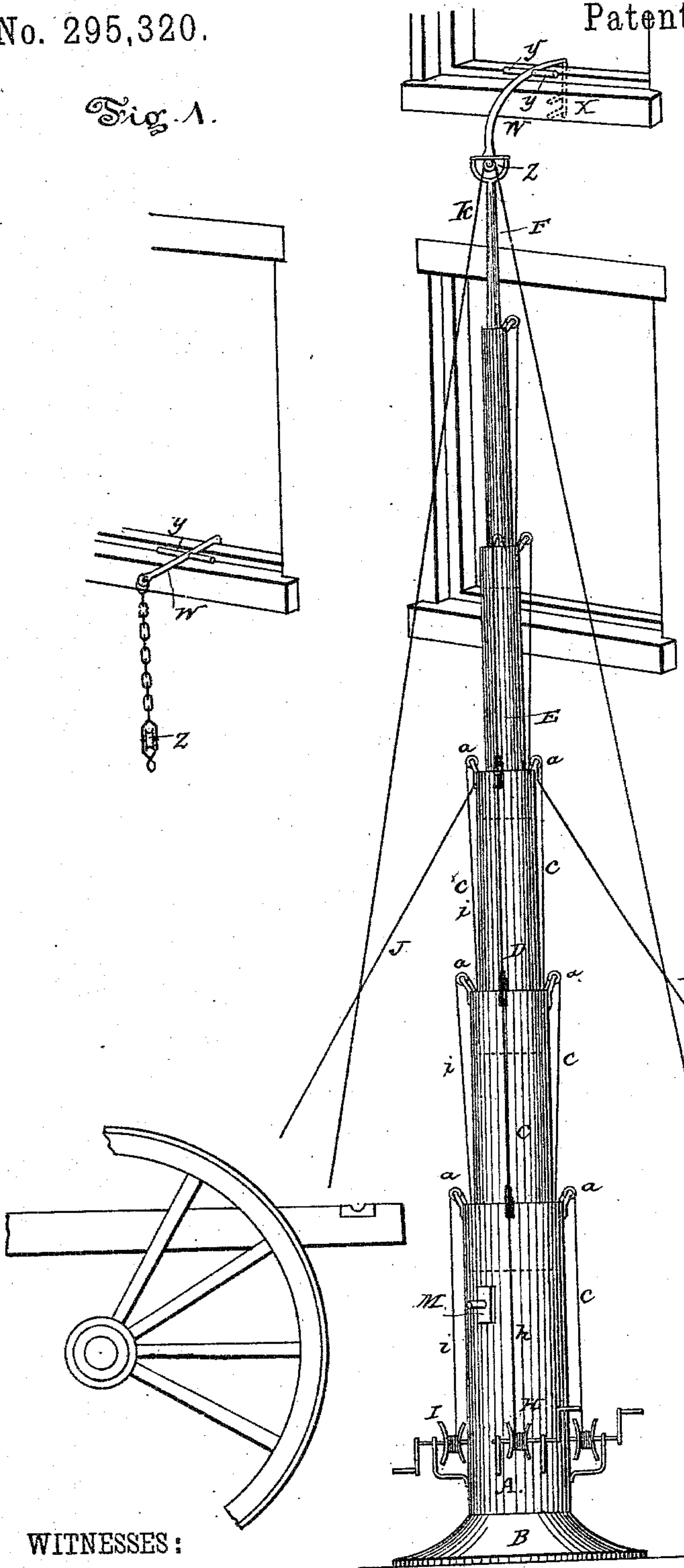
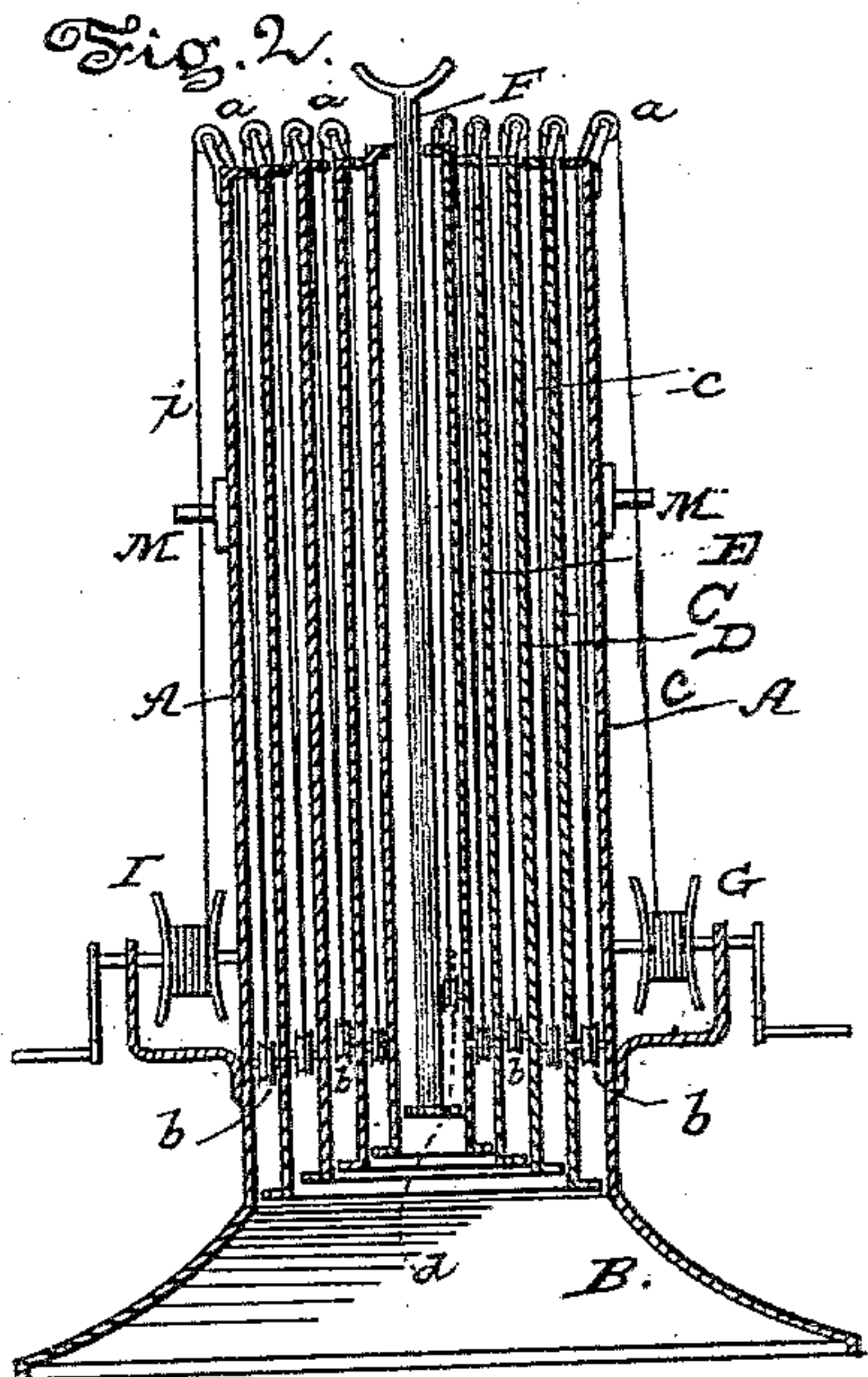


Fig. 2.



WITNESSES:

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 295,320, dated March 18, 1884.

Application filed March 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WISE, of Medway, in the county of Clarke and State of Ohio, have invented a new Improvement in Fire-Escapes, of which the following is a specification.

My invention relates to that class of fire-escapes adapted to be moved from place to place and to be set in front of a burning building, to raise to the windows thereof some means of escape for persons therein; and it consists in the construction and combination of parts, forming a portable fire-escape, hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my fire-escape raised ready for use, and Fig. 2 is a central vertical section of the same before raising.

A represents a tube of sheet metal, to which is secured a suitable base, B, of sufficient area to prevent the weight of the device from sinking into the ground. C D E are smaller tubes, one placed within the other. The lower end of each tube is provided with an exterior flange, fitting the interior of the next larger tube, and the upper end of each tube is provided with an interior flange fitting the exterior of the next smaller tube. On these flanges the sections of the tubes are steadied to slide, forming a telescopic mast. The upper edge of each tube, except the innermost one, is provided with one or more pulleys, *a'*, and each inner tube, except the smallest one, has fixed to it one or more similar pulleys, *b*, at about one-quarter of its height from its lower end. Over the upper pulleys, *a*, and under the lower pulleys, *b*, passes a rope, *c*, which is secured at one end to the smallest tube F at a point, *d*, corresponding to the position of the pulleys *b* on the other tubes. The other end of the rope *c* is wound upon a windlass, G. From each of the pulleys *a* the rope passes down through a hole in the inner flange of that section around the lower pulley, *b*, of the next inner section, thence upward over the next pulley *a* at its top, then down again through a hole in the flange, and so on until it reaches the point *d* on the inner tube, where it is secured. When the rope *c* is wound on the windlass, the inner section, F, will be first raised to its full height—that is, about three-quarters of its length. Then the next section will be raised, carrying

up the inner section fully extended. So each outer section will follow the next inner one upward until section A is the only one remaining on the ground and the mast is raised. By so placing the lower pulleys, *b*, the sections cannot be drawn out their full length, enough—about one-quarter, as herein described—being left in to preserve the stiffness of the mast when extended. The first two or three sections will be raised easily; but each succeeding section is heavier than its predecessor, and its weight is added to that of all that have been raised; so I provide other windlasses, H I, and other ropes, *h i*, attached to the lower sections, whereby more power may be applied to assist in raising them. The rope *h* may be attached to the third section and rope *i* to the fifth, or otherwise, as the case requires. Thus I supply means for applying increased power as the weight increases, and yet these extra windlasses are held in reserve when only the upper sections are raised, and do not entail unnecessary labor or attention when not needed. To the top of the mast I attach an arm, W, or chain, extending to one side, and provided with a double-pointed hook, *x*, at its end. The purpose of this arm is to reach into a window and secure its hook to the inside of the window-sill, to steady the top of the mast. As a further measure of security, stay-lines J are attached to the mast midway. To prevent the hook *x* from rocking, I provide arm W with a cross-bar, *y*, to rest on the window-sill. At the head of the mast I attach a pulley, *z*, over which a rope, *k*, passes, to raise and lower the escape-car L. This car is made of sheet-iron, and it is provided with a lid to prevent the occupants being injured in case the car passes through flames. It is also provided with an inverted conical bottom, to prevent it from catching on window caps and sills in its descent. This car may be of any size required to carry one or more persons at a time, according to the requirements of the case and the force to control its elevating-rope. M represents two trunnions attached to the base-section of the mast, to carry the whole device by, as follows: A heavy truck is provided with a pair of notched timbers extending over its rear axle enough to receive trunnions M. These timbers are then raised until the mast swings freely, when it is turned to a horizontal posi-

tion, and the timbers are slid forward until the mast lies on the truck, when it is ready for transportation. With each mast several arms or chains are applied, and to each one a
5 pulley is secured, on which a rope may run, to raise and lower an escape-car, so that by once raising the mast and swaying it from side to side several windows may be supplied with means of escape for the occupants, all to be at
10 work at the same time.

What I claim as my invention, and wish to secure by Letters Patent, is—

1. The combination, with a tubular mast having three or more telescoping sections, of
15 a rope attached to the inner section, pulleys on all the other sections, over which said rope runs, and means for winding said rope, in combination with another rope attached to same section outside the inner one, pulleys
20 over which the second rope runs on sections outside of the one to which this second rope is

attached, and means for winding the second rope independent of the first, as described, whereby the mast may be fully raised by the first rope, or it may be partially raised by the
25 first rope and then the pulley raised by the action of both ropes working together independent of each other.

2. A sheet-metal fire-escape car having a lid completely closing its top and a bottom in the
30 shape of a complete cone inverted, substantially as shown and described.

3. The combination, with the mast and the arm or chain provided with a hook and pulley, as described, of a cross-bar secured thereto
35 near the hook, as and for the purpose specified.

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Witnesses:

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