

(No Model.)

2 Sheets—Sheet 1.

J., A. & H. VOLZ.

PORTABLE TOWER PLATFORM FIRE ESCAPE.

No. 487,039.

Patented Nov. 29, 1892.

Fig. 1.

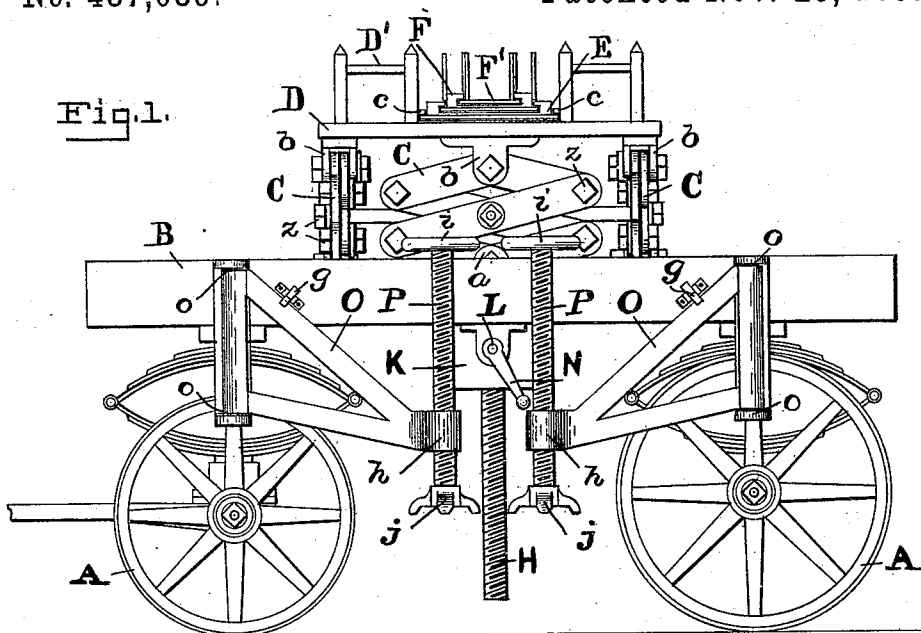
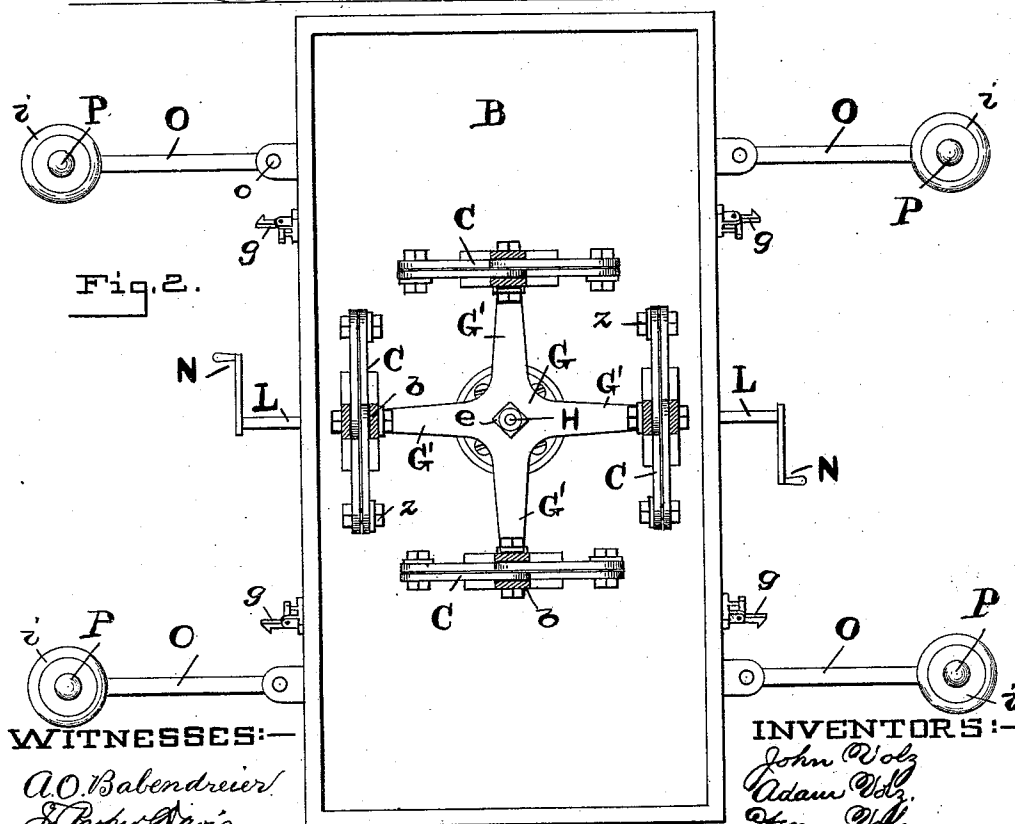


Fig. 2.



WITNESSES:—

A. O. Babendreier,
J. Parker Davis.

INVENTORS:—

John Volz,
Adam Volz,
Henry Volz.

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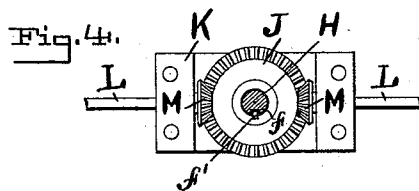
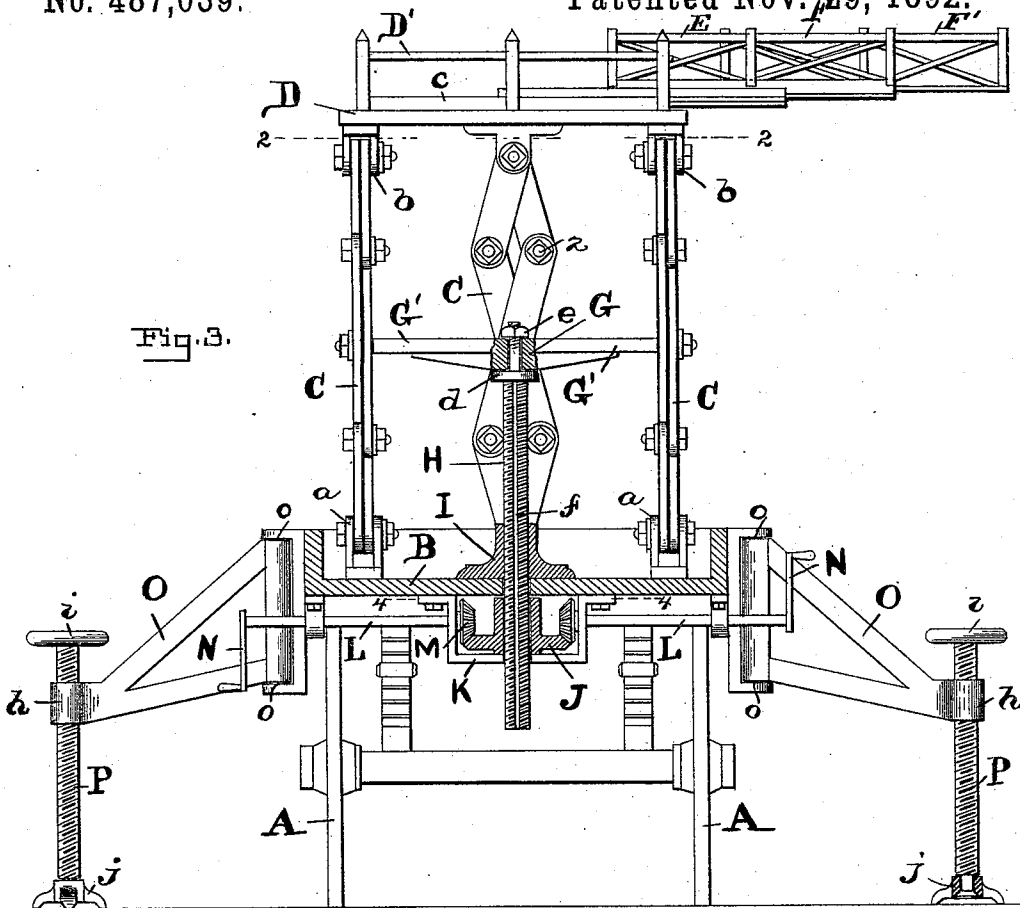
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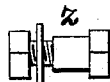


Fig. 5.

INVENTORS:—

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Att'y

UNITED STATES PATENT OFFICE.

JOHN VOLZ, ADAM VOLZ, AND HENRY VOLZ, OF BALTIMORE, MARYLAND.

PORTABLE TOWER-PLATFORM FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 487,039, dated November 29, 1892.

Application filed August 8, 1892. Serial No. 442,408. (No model.)

To all whom it may concern:

Be it known that we, JOHN VOLZ, ADAM VOLZ, and HENRY VOLZ, citizens of the United States, residing at Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Portable Tower-Platform Fire-Escapes, of which the following is a specification.

This invention relates to portable tower-platform fire-escape apparatus, and is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation with the platform lowered. Fig. 2 shows a horizontal section through the lazy-tongs and a plan view of the vehicle-body and swinging braces in their outward service position. Fig. 3 shows a cross-section of the apparatus as it appears when in use. Fig. 4 shows a detail of the raising-gear. Fig. 5 shows a detail of the pivot-bolt used for forming the joints of the lazy-tongs.

The apparatus is mounted on wheels A and comprises a suitable body B, on which are erected four sets of lazy-tongs C, jointed at the lower end to ears *a* on the body-bottom and supporting a horizontal platform D, which has ears *b* on the under side, to which the upper ends of the lazy-tongs are jointed. The bars composing the lazy-tongs are jointed together by pivot-bolts *z* of the form shown in Fig. 5. The platform D has a railing D' around it and guideways *c* extending across it at the middle. A sliding extension-gangway E fits the said guideways and is adapted to slide outward therein and project from the platform. This gangway E itself has longitudinal slideways, and a second extension-gangway F fits the said guideways and is adapted to slide outward therein and project from the first-named gangway, thus forming an extension of the same. A third extension-gangway F' is fitted in like manner to slideways on the gangway F. A cross-head G is between the four sets of lazy-tongs and has four arms G', one being connected at the outer end with each set of lazy-tongs. A screw-shaft H has its upper end extending loosely through the center of the cross-head G and a shoulder *d* bearing against the under side of said cross-head. A nut *e* screws on the upper end of the shaft above the cross-

head, and the latter is thus held on the screw-shaft so as to move therewith. The said screw-shaft fits through a screw-threaded boss I, fastened on the body-bottom and extends downward below the latter. It has a spline-groove *f* in one side, and a bevel gear-wheel J is fitted loosely on the shaft and has a key *f'* engaging the said spline-groove. This crown-wheel is supported by a bracket K, fastened on the under side of the body-bottom. Two shafts L are mounted in suitable bearings below the body-bottom and each carries a bevel-pinion M, which engages the bevel gear-wheel J. Each shaft extends beyond the side of the body B and has a crank N on the end for turning it.

The operation of the parts above described will be obvious. Upon turning the crank N the wheel J is revolved, and thereby the screw-shaft H, which raises by working through the threaded boss I, and by its connection through the cross-head G with the lazy-tongs C extends the latter, and thereby elevates the platform D. The platform may in this manner be raised to the desired height, and then the extension-gangways E F F' run out to form a bridge to the upper part of a burning building.

In order to steady the vehicle and hold it immovably in its position near the fire, we provide the following arrangement: Swinging brackets O are hinged at *o* to the sides of the body B, and they may lie alongside and against the body sides, where they will be held by suitable spring-catches *g*, (see Fig. 1,) or they may be swung outward on their hinges or pivots and take position at right angles to the body B. (See Fig. 2.) There are four of these swinging brackets, two hinged to each side of the body—one at the forward part and the other at the rear part. Each bracket has a screw-threaded boss *h* at the outer end, and a screw P extends vertically through the boss and has a knob *i* on the upper end for turning it and a foot *j* loose on the lower end. Each screw is long enough for its foot to bear on the surface upon which the vehicle stands. To fix the vehicle at the desired place, the swinging brackets are released from the catches holding them and swung outward. The screws P are then moved down by turning the knobs *i* until the feet *j* press firmly

upon the surface on which the vehicle stands. The said feet being loose, the screws may still be turned after they encounter said surface in order to bind them upon the same. It will
5 be obvious the four screws and brackets thus serve as braces and firmly hold the vehicle in place. The screws may be made to lift the vehicle wholly from the ground and support it themselves. The lazy-tongs may be
10 made as long as desired by removing the pivot-bolts *z* and inserting more bars, and then jointing them again by means of said bolts.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

15 In portable fire-escape apparatus, the combination of a body mounted on wheels, a platform above said body, lazy-tongs supporting

said platform, a cross-head connected with the lazy-tongs, a screw-shaft having an end 20 joined to said cross-head and said screw-shaft extending down through the body-bottom and having a spline-groove in one side, a threaded boss on the body-bottom and engaging the screw-shaft, a gear-wheel on the 25 said screw-shaft and having a key engaging the spline-groove therein, and means for revolving said gear-wheel.

In testimony whereof we affix our signatures in the presence of two witnesses.

JOHN VOLZ.
ADAM VOLZ.
HENRY VOLZ.

Witnesses:

JNO. T. MADDOX,
F. PARKER DAVIS.