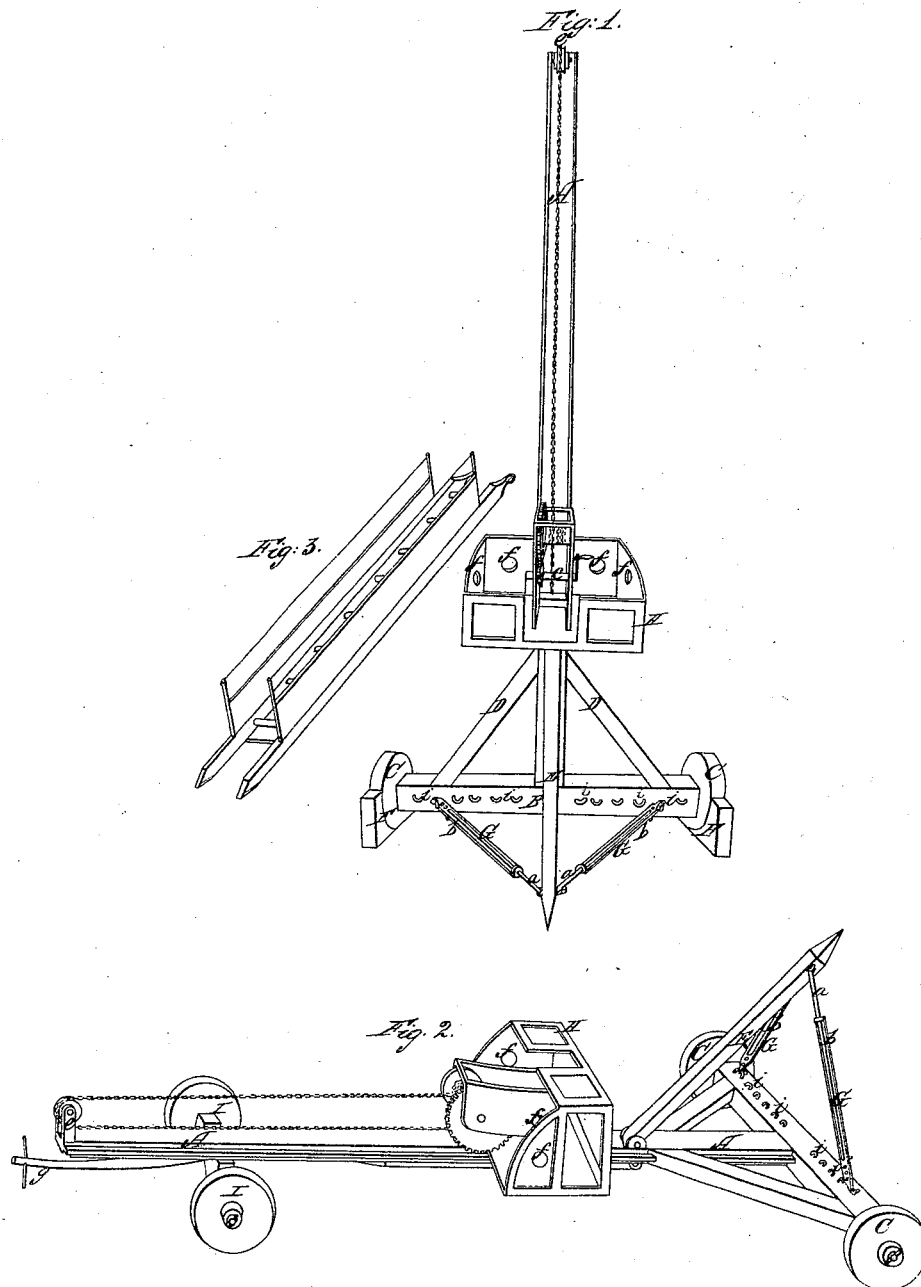


Welch & Lincolne.

Fire Escape.

N^o 1,943.

Patented Jan. 23, 1841.



UNITED STATES PATENT OFFICE.

SAMUEL WELSH AND THOMAS LINACREE, OF ALBANY, NEW YORK.

MANNER OF CONSTRUCTING THE APPARATUS CALLED "THE FIRE-ESCAPE," AND ALSO TO AID IN EXTINGUISHING FIRES IN BUILDINGS.

Specification of Letters Patent No. 1,943, dated January 23, 1841.

To all whom it may concern:

Be it known that we, SAMUEL WELSH and THOMAS LINACREE, of the city of Albany, in the State of New York, have made certain
5 Improvements in a Machine or Apparatus which is Used as a Life-Preserver and to Aid in the Extinguishing of Fires in Buildings; and we do hereby declare that the following is a full and exact description thereof.

The machine or apparatus which we have improved is of that kind in which there is a box for containing persons, and such implements as they may need; which box, by the
15 turning of a winch, may by the power of those within it be made to ascend, or slide up, on a vertical shaft, to the height of twenty, thirty, or more feet. Said vertical shaft is, at its lower end, attached and
20 braced to a piece of timber which constitutes one of the axles of a carriage upon which the apparatus is to be conveyed to and from a fire; the shaft which is to stand vertically when in use, being then placed in
25 a horizontal position.

In the accompanying drawing, we have shown this apparatus as improved by us.

Figure 1, represents it with the shaft elevated, as when in use at fires. A, A, is the
30 vertical shaft, made of timber of suitable strength. B, is a piece of timber into which the lower end of A, A, is mortised; this piece B, constitutes the axle of two wheels C, C. The pieces D, D, are braces between A and
35 B. The wheels C, C, we chock by means of blocks F, F, which are curved on their upper sides, and into which said wheels fit; and to the vertical shaft A, A, there is also attached, by hinge joints, two movable braces
40 E, E, the points of which are armed with iron, where they bear upon the ground, or pavement. These movable braces we connect to the axle timber B, by means of adjusting, leveling bars of iron G, G. These
45 bars may be lengthened, or shortened, at pleasure, by shifting their ends to the respective loops, or staples, *i, i*, or by passing the hooked end of the part *a*, into a suitable hole in the part *b*. H, is the box which is
50 to be raised and lowered on the shaft A, A, by means of a windlass, and a chain, or rope; *c*, is the shaft of the windlass, furnished with winches, and raising the box by means of the rope, or chain, *d*, which passes

around a pulley *e*, at the upper end of the
shaft A, A. Friction rollers attached to the box H, bear upon the shaft A, to cause it to slide with ease. In the sides of the box H, there are openings *f, f*, through which to pass a branch pipe, as the sides of the box
60 should be sufficiently elevated to defend the persons within it from the heat of a fire.

Fig. 2, represents the apparatus as it is situated when transported; the shaft A, A, being placed horizontally, the wheels I, I,
65 with their axle and tongue being then affixed by a ring bolt under what is the upper end when the shaft is elevated.

Fig. 3, is a ladder, within a trough, which is intended to lead from any suitable part
70 of the box H, to a window, for the removal of persons, or property, it having suitable hooks at its ends by which to attach it to the box; *g*, Fig. 2, is a pulley on the back part of the shaft A, at its upper end, by means of
75 which the ladder Fig. 3, may be drawn up; a rope, or chain, passing around the pulley *g*, for that purpose.

Having thus fully described the nature of the apparatus which we employ to preserve
80 the lives of persons, and to aid in removing property and extinguishing fires in buildings, it is to be distinctly understood that we do not claim to have invented this apparatus, so far as its general construction is
85 concerned, but we do claim to have made certain improvements therein, by which it is rendered more convenient and efficient than it has been as heretofore constructed. We
confine our claim to invention, therefore, 90 to—

1. The particular manner of combining those parts thereof by which it is held steadily when the shaft is being raised, and while it is in a vertical position; said combination
95 consisting of the adjustable, leveling bars G, G, the movable braces E, E, and the scotch blocks F, F, coöperating with each other in the manner set forth.

2. We also claim the combining with such
100 apparatus, the trough and ladder, as shown in Fig. 3, with the additional pulley for elevating and managing the same.

SAMUEL WELSH. [L. S.]
THOS. LINACREE. [L. S.]

Witnesses:

DANIEL W. MILLS,
J. V. FORD.