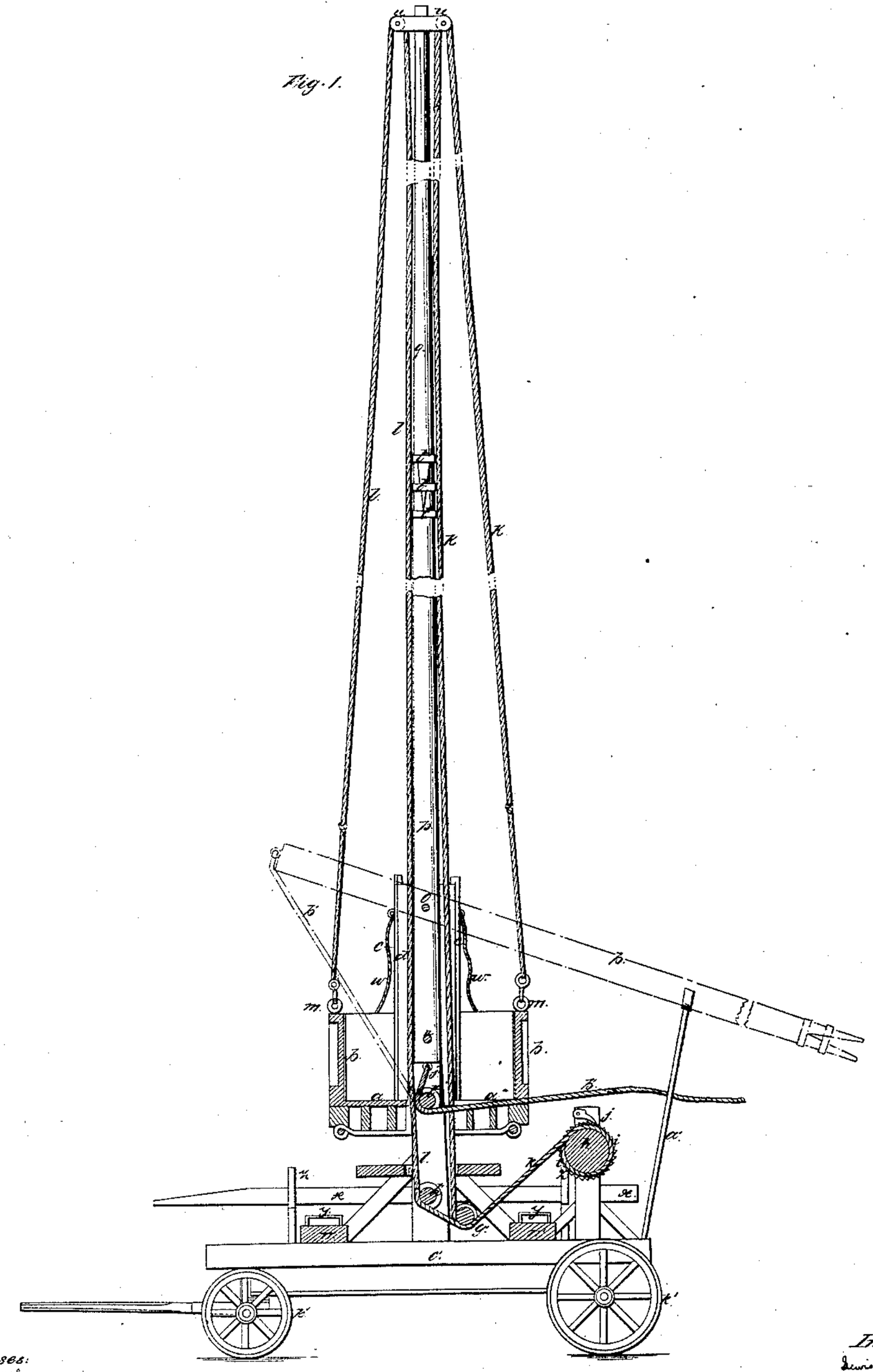
Sheet 1. 2 Sheets.

L. Knocke,

Fire Escape,

No. 28.380, Patented May 22. 1860.

Fig. 1.



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Sheet 2 - 2 Sheets.

L. Knocke,

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Fig. 2.

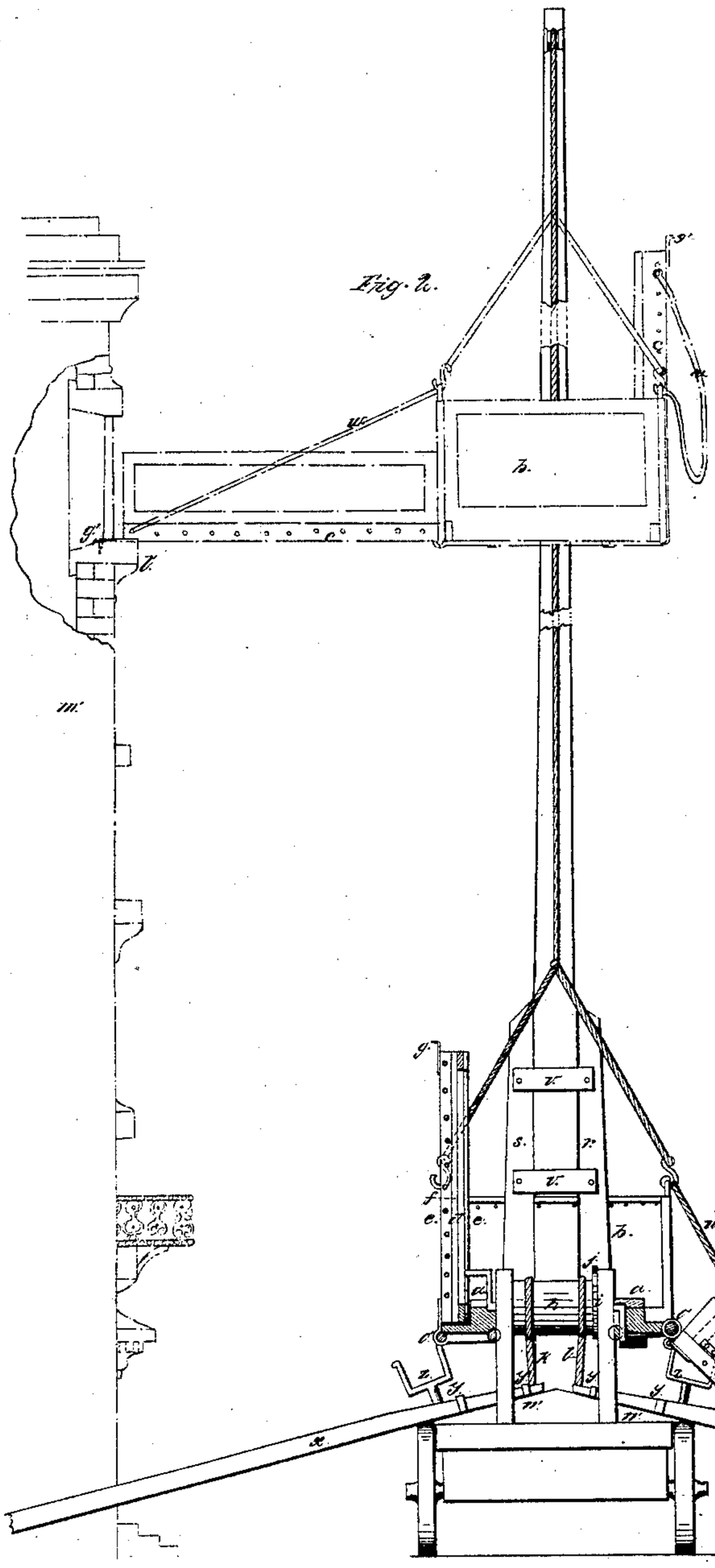
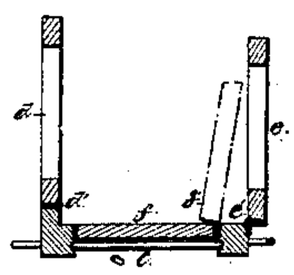


Fig. 3.



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UNITED STATES PATENT OFFICE.

LOUIS KNOCKE, OF DAVENPORT, IOWA.

FIRE-ESCAPE.

Specification of Letters Patent No. 28,380, dated May 22, 1860.

To all whom it may concern:

Be it known that I, LOUIS KNOCKE, of Davenport, in the county of Scott and State of Iowa, have invented a new and useful Improvement in Fire-Escapes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1, represents a vertical longitudinal section, and Fig. 2, a vertical cross section of the machine, and Fig. 3, a section of a detached portion of it.

Similar letters of reference, in each of the several figures indicate corresponding parts.

The nature of my invention consists, 1st, in the combination and arrangement of a movable platform with hinged sides, a hinged and jointed mast, carriage, staples and anchor-bars. The object of this combination of a carriage with a platform which can be raised and lowered on a mast attached to the carriage, is to construct a machine adapted to purposes of building, raising and lowering weights, extinguishing fires &c.

It consists, 2nd, in combining a movable platform, with hinged sides which consist of hinged railings, a hinged bottom and a ladder as hereafter to be described, for the purpose of being used either as a ladder or a gangway to establish communication between the platform and the various stories of a building near which the machine is placed.

It consists, 3rd, in combining the carriage with tapering cross beams, staples and anchor beams, for the purpose of steadying the machine when in use for the above-mentioned purposes.

To enable others skilled in the art, to make and use my invention, I will proceed to describe its construction and operation.

The body c', of the carriage rests upon wheels k', and two beams n', (the upper surface of which taper toward both sides of the carriage, as seen at n', n', Fig. 2) are fastened across the carriage. Staples y, are attached to the sloping or tapering surface of the cross beams n', and the tapering ends of anchor-beams x, may be inserted into said staples so that the straight sides of the anchor beams will come to rest against the sloping surfaces n', n', as seen in Fig. 2. In this position of the cross beams, their outer ends bear on the ground and thus great steadiness is given to the carriage while the machine is being used for the purposes of building, raising weights, extinguishing fires &c.

When the machine is being moved to or from its place of destination, the anchor beams x, are held in stirrups y, attached to the body of the carriage, so as to be out of the way.

A heavy frame-work consisting of two upright timbers r, s, rises from the center of the carriage, the two timbers being connected by two cross-bars v, v.

The lower portion p, of a mast p, q, is hinged between the two timbers r, s, by means of a fulcrum pin o, passing through the timbers and the mast.

When the carriage is under way, the portion p, of the mast is turned down, its outer end resting on a support a', attached to the carriage as shown by red lines in Fig. 1, and the upper portion q, of the mast is stowed away on the carriage.

When the carriage has arrived at its place of destination, the beveled end of the upper part q, of the mast is inserted into the corresponding slot in the upper end of the part p, of the mast, rings t, (two of which are attached to p, and one to k,) serving to hold the two parts of the masts together at their joint. The mast is then elevated into a vertical position (as represented by black lines in Figs. 1 and 2) by turning it on the fulcrum-pin o. This is done by pulling at the outer end of a rope b', which passes around a roller i', whose bearings are in the timbers r, s. The inner end of the rope is fastened to the lower end of the part p, of the mast.

When the mast has been raised into a vertical position, a pin n, is inserted through holes in the timbers r, s, and a hole near the lower end of p. Thus the mast is confined in its vertical position.

A platform a, is made with a hole in the center to accommodate the mast and timbers r, s. The platform is provided with two stationary sides b, and two sides c, d, e, f, hinged to the platform at o', o'. These hinged sides consist of a ladder c, to the sides of which, railings d, e, are hinged at d', and e', and a bottom f, is also hinged to one side of the latter, as seen at f, Fig. 3, which represents a cross section of one of the hinged sides of the platform, with the bottom f, closed down upon the ladder and the two railings turned up. Two ropes l, k, are

fastened to the sides *b*, of the platform, as seen at *m*, *m*.

The ropes *l*, *k*, pass over pulleys *u*, *u*, at the top of the mast *p*, *q*, and down alongside of the mast, through the hole in the center of the platform and over rollers *h'*, *g'*. The ends of the ropes wind around a capstan *h*. It will be seen that on turning the capstan one way or the other, the platform will be either raised or lowered.

When the platform has been raised to the proper height, as indicated by red lines in Fig. 2, the hinged side of the platform nearest to the building, can be turned down so as to be horizontal or nearly so, the hooked end *g*, of the hinged side resting on or being driven into a window sill. The railings *d*, *e*, are then turned up and persons can walk and goods, building materials &c. be passed over the bottom *f*, from the house onto the plateform, and vice versa.

Ropes *w*, *w*, fastened to the outer end of the hinged side can be tied to the rings *m*, to which the ropes *l*, *k*, are attached (as seen in red lines in Fig. 2) so as to prevent the gangway or bridge (found by the hinged side of the platform) from dropping down in case the hooked end *g*, of the gangway should accidentally slip off its point of support.

If the part of the building (which it is desired to place into communication with the platform) is somewhat higher than the mast, the bottom *f*, of the hinged side of the platform, can be turned up so as to expose the ladder *c*, underneath. The hinged side can then be placed in an inclined position, the upper end leaning against the point of the building to be reached, and persons can pass up and down the ladder *c*.

It will be understood without further explanation, that this machine will be highly useful in cases of fire for the purpose of saving human life, and also valuable goods which would be liable to be injured or destroyed by being thrown out of the window.

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

1. The combination and arrangement of a movable platform *a*, with hinged sides *c*, *f*, *d*, *e*, a hinged and jointed mast *p*, *q*, carriage *c'*, *k'*, staples *y*, and anchor bars *x*, substantially as and for the purposes set forth.

2. Combining a movable platform, with hinged sides which consist of hinged railings *d*, *e*, a hinged bottom *f*, and a ladder *c*, substantially as and for the purposes set forth.

3. Combining the carriage *c'*, *k'*, with tapering cross beams *n'*, staples *y*, and anchor beams *x*, substantially as and for the purposes set forth.

L. KNOCKE.

Witnesses:
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