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E. J. Hudson.

Fire-Escape.

PATENTED JAN 10 1871

Fig. 1

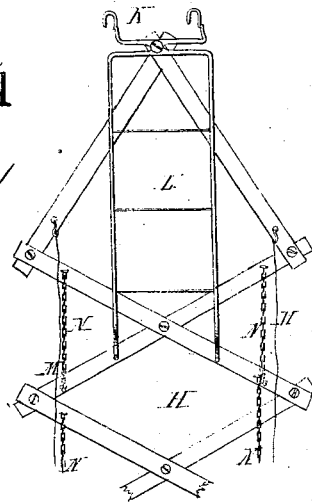
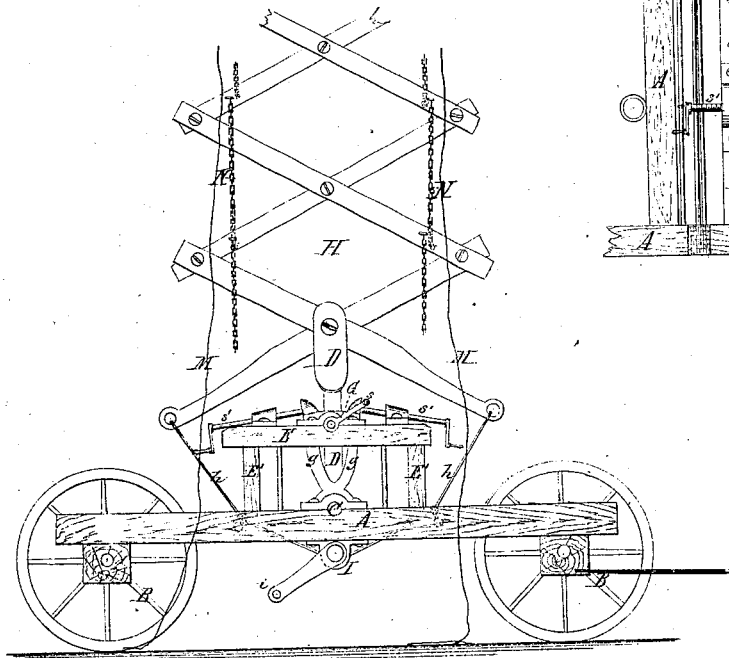
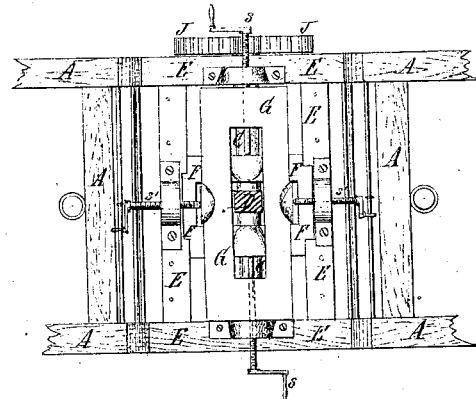


Fig. 2



Witnesses:

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EDWARD J. HUDSON, OF GOLCONDA, ILLINOIS.

Letters Patent No. 110,851, dated January 10, 1871.

IMPROVEMENT IN FIRE-ESCAPES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDWARD J. HUDSON, of Golconda, in the county of Pope and State of Illinois, have invented a new and improved Fire-Escape; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a side elevation.

Figure 2 is a plan of the carriage and adjusting apparatus, the "lazy-tongs" having been removed.

The object of this invention is to provide for the public an improved instrument for reaching the upper rooms of buildings on fire; to this end

The invention consists in the employment of a device commonly known as a lazy-tongs, for elevating grappling-hooks, ladders, &c., to the windows of the room to be entered, and in the employment, in connection therewith, of novel and effective appliances for guiding and controlling the lazy-tongs, for enabling the workmen to use the device on uneven ground, and for steadying and supporting the apparatus when in use, and transporting it from place to place.

In the drawing—

A is the frame of the carriage that supports the instrument mounted on wheels B B, by which it can be moved from place to place.

C is a roller extending across the middle of the frame, and bearing in journal-boxes in the side pieces of the frame.

D is a stout post stepped loosely in a mortise in the roller, so that it can be inclined to one side or the other without moving the roller, while by turning the roller slightly it can be made to incline forward or backward in line with the frame.

E is a small rectangular frame resting on posts E' E, directly over roller C.

F is a slotted slide extending across frame E, its ends resting on shoulders or ledges projecting from the inner walls of the frame-timbers, and capable of being slid along by means of screws s s toward one end or the other of the frame E.

G is a rocking platform over slide F, supported by upright rocking arms g g beneath it, which are pivoted upon the roller C, so that the platform can be moved or swung toward one end or the other of the main frame A of the carriage, the direction of its movement being at right angles with the direction in which the parts E slide, its slot crossing the slot in part E, likewise at right angles, and the post D extending up through both slots, so that, by means of the screws s s, and similar screws, s' s', which work in connection with platform G, the post can be inclined in any direction, as may be desired.

H is a lazy-tongs supported upon post D, with the ends of its lower levers connected by cords or chains h h to a windlass I, furnished with a crank, i, at each end, by turning either of which cranks the lazy-tongs can be expanded or contracted at will.

If desired, the power of the cranks can be increased on one or both sides of the machine by means of cog-gearing J.

K K are grappling-hooks;

L is a ladder; and

M M are guy-ropes, all attached to the upper end of the lazy-tongs, and

N N are short chains or cords attached to the arms of the tongs, and capable of being hooked to eyes or hooks upon adjacent arms, so as to prevent the lazy-tongs from extending beyond a certain distance.

An instrument thus constructed is to be operated in the following manner:

Upon arriving near the building, the inclination of post D is adjusted by means of screws s s, according to the character of the ground and the distance and height of the window to be entered. The lazy-tongs is then expanded until the grappling-hooks are over the window-sill, when the screw s s on that side is unscrewed slightly, and the crank is turned backward a little, allowing the hooks to catch over the sill, they being guided, if necessary, by means of the ropes M M. As soon as they are firmly hooked, the ends of the chains N N are made fast, and the instrument is then ready for immediate use.

When its work is done it is only necessary to unfasten the chains, turn the windlass a little so as to raise the hooks from the window-frame, and then ease the expanded ladder slowly down by means of the cranks or cog-gearing, guiding it carefully with the ropes, which may be swung out on either side for the purpose.

Having thus described my invention,

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

1. In combination with the lazy-tongs, the described means for adjusting its inclination, consisting essentially of the rocking-post D, the slotted slides F, rocker G, and the adjusting screws s s, all arranged and operating substantially as and for the purposes set forth.

2. The combination of chains or cords N with a lazy-tongs fire-escape ladder, substantially as and for the purpose described.

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Witnesses:

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