2 Sheets--Sheet 1.

M. CRONIN
Firemen's Ladder.

No. 168,233.

Patented Sept. 28, 1875.

Fig. 1.

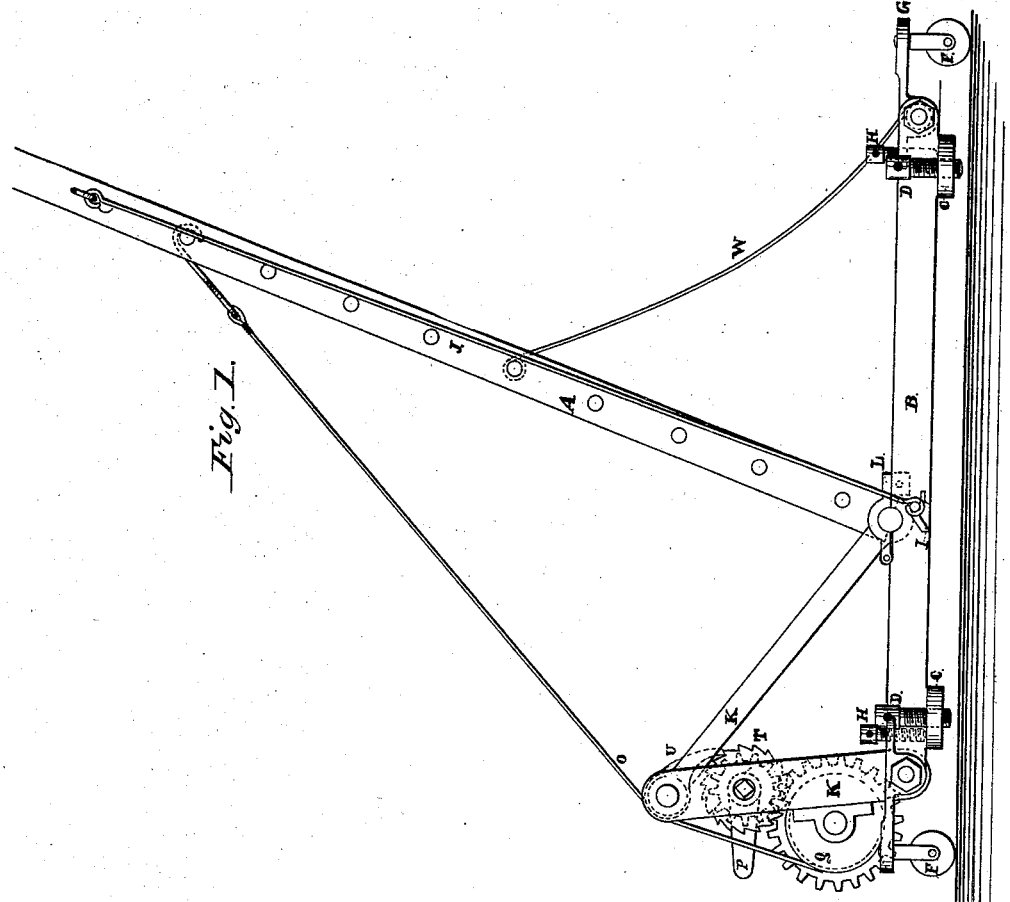
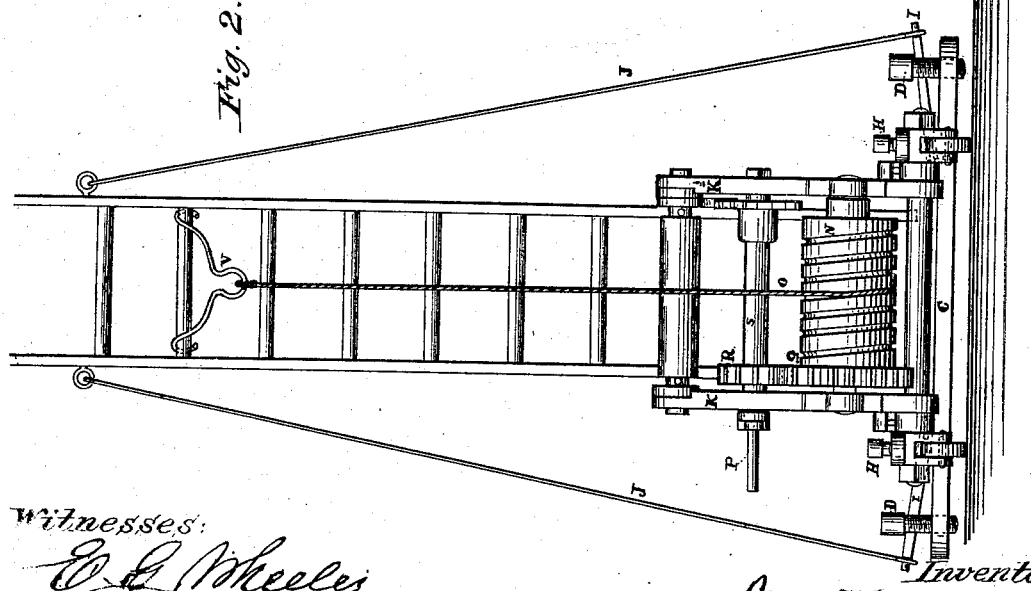


Fig. 2.



Witnesses:

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Inventor:

Martin Cronin

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2 Sheets--Sheet 2.

M. CRONIN

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Fig. 3.

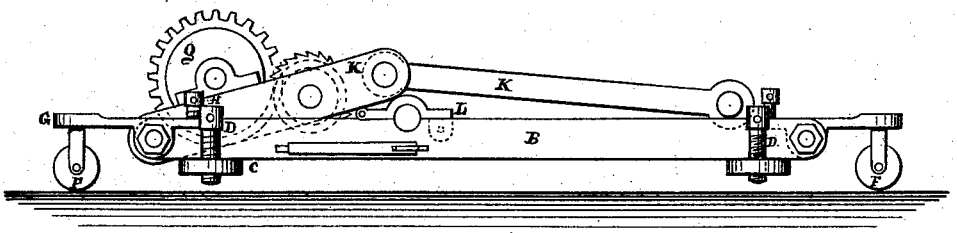


Fig. 4.

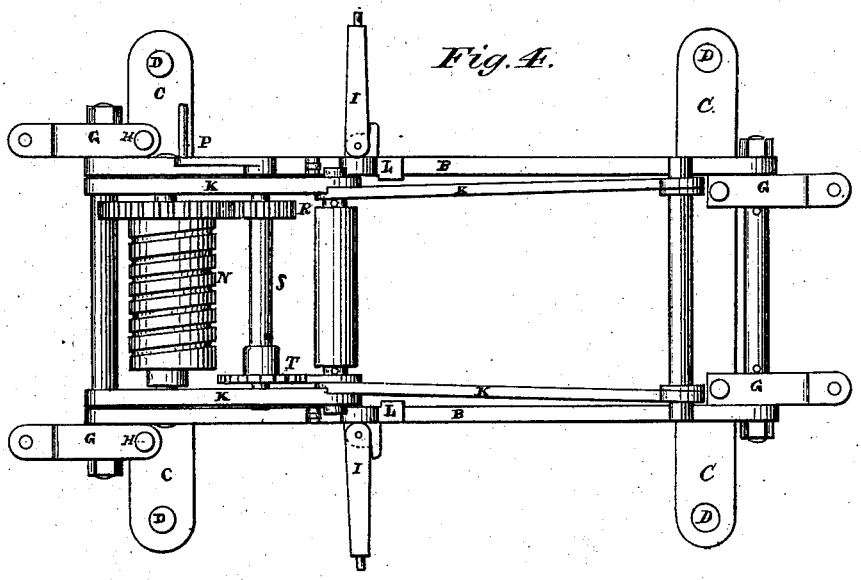


Fig. 5.

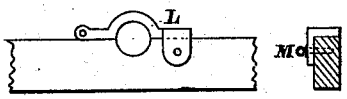
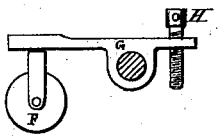


Fig. 6.



Witnesses:
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UNITED STATES PATENT OFFICE.

MARTIN CRONIN, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN FIREMEN'S LADDERS.

Specification forming part of Letters Patent No. **168,233**, dated September 28, 1875; application filed September 18, 1875.

To all whom it may concern:

Be it known that I, MARTIN CRONIN, of Washington city, District of Columbia, have invented a new and useful Improvement in Portable Platforms and Elevating-Derricks for Firemen's Ladders, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, making a part thereof, in which—

Figure 1 is a side elevation, showing the ladder elevated with the working parts. Fig. 2 is a front view of the same. Fig. 3 is a side view of the platform and derrick folded down. Fig. 4 is a plan view of the same. Figs. 5 and 6 are detail views of the journal-cap and caster-wheels.

The object of my invention is to provide a portable platform for ladders, more especially for large ladders, such as are used by firemen, which can be readily transported from place to place on any hook-and-ladder truck, wagon, hose-carriage, or engine, and when in use will insure a safe and reliable support against ice, snow, and uneven surfaces in the streets, while affording means for the rapid removal of the ladder from one building to another, and from falling walls; also, an easy, rapid, and convenient device for raising and lowering the ladder or ladders.

My invention consists of a rectangular frame-work of suitable-sized timber or other material, with or without adjustable caster-wheels, but having folding side braces, a pivoted folding derrick, and a rope-drum, or equivalent devices, for raising and lowering the ladders.

Referring to the drawings, A designates any suitable ladder; B B B B, a rectangular platform, to the under side of which are secured sill-pieces C C, which project over the sides, and are provided with threaded holes, through which the screw-bolts D D D D project, and by which the platform is leveled on uneven surfaces, or secured from slipping when used on icy or smooth streets. Iron or steel pegs or shoes may be used to advantage in icy or snowy weather, instead of the screw-bolts, said pegs being driven down through the holes in the sills into the ground. At each corner of the platform are caster-wheels F F F F, which are secured to the ends of horizontal bars G G G G, said bars being pivoted near their centers to the projecting ends of the platform-timbers. The bars G, in which the caster-wheels are pivoted, are provided at their inner ends with screw-bolts H H H H, which, when in use, impinge on the upper surface of the sills, and by which the caster-wheels are adjusted and held in contact with the ground. I I are arms, pivoted by means of a rule-joint to the longitudinal pieces or stringers of the platform, in such a manner that when not in use they may be folded up against the sides of said stringers. When required for use they are opened out and guy rods or ropes J J are secured to their outer ends, which extend up and are fastened to the sides of the ladder, thus preventing any lateral motion of the ladder, and assisting in holding the ladder steady when elevated. K K is an adjustable folding derrick, pivoted at its forward end to the cross-timber or cross-tie of the platform, and having a flexible joint, which enables the free end to be brought up and seated in bearings made for the purpose in the longitudinal stringers of the platform, where it is secured by hinged journal-caps L L, provided at their free ends with a lip or projection, which extends down the side of the stringers, and through which pins M M are passed into said stringers, thus securing the derrick firmly in position. When not in use the derrick is folded down on the platform, and can be conveniently transported, as seen in Fig. 3. At the front and lower end of the derrick is journaled a drum, N, on which the hoisting-rope O is wound. The drum is provided with a crank, P, and pinion-wheel Q, said pinion-wheel engaging with pinion-wheel R on shaft S, which also carries a ratchet-wheel, T, with which a pawl, U, engages, said pawl being secured to the round of the flexible joint of the derrick, or any other convenient part of the derrick or drum.

I do not confine myself to the exclusive use of the drum, with its connections for elevating the ladder, as it is obvious that a block-and-tackle, screw, or other similar device may be used to advantage. One end of the rope having been secured to the drum, the other end is passed up over the apex of the derrick, which may or may not have a friction-pulley

placed loosely on the round or cross-bar connecting the joints. Secured to the other end of the rope is a double hook, V, sufficiently large to permit a person to pass through it. This is hooked over one of the rounds of the ladder when it is desired to elevate the same, and by turning the drum the ladder is raised. A stop or guy rope, W, is secured to the rear end of the platform, and to one of the rounds of the ladder, which prevents the ladder from being elevated too far or thrown beyond a perpendicular, which is likely to occur in the excitement of the moment incident to a conflagration.

Having brought the platform into position and leveled it properly by the screw-bolts, or secured it by means of the bolts or pins to the ground, the derrick is then adjusted and secured in position. The lower end of the ladder, the stiles of which have been cut out for this purpose, is saddled over the cross-bar of the derrick. The rope is then unwound from the drum, the hooks applied to an upper round of the ladder, and the guy ropes or rods secured to the ends of the folding arms, when the ladder is readily elevated by the turning of the drum. In case the removal of the ladder is required for fear of falling walls, or on account of being needed in another quarter, all that is necessary is to bring the caster-wheels into requisition, when the whole device can be removed out of danger or to the place most needed.

Having thus described my invention, what I desire to secure by Letters Patent is—

1. A portable platform for supporting ladders, with adjustable caster-wheels and screw-bolts, or iron pins, substantially as herein set forth, and for the purpose specified.

2. In combination with the portable ladder-platform B, the folding and adjustable derrick K, substantially as set forth, and for the purpose specified.

3. The combination of the portable platform B, derrick K, drum N, crank P, rope O, double hook V, folding arms I, and guy-rod J with the ladder A, all substantially as shown, and for the purpose set forth.

4. The combination of the portable platform B, derrick K, drum N, crank P, ratchet-wheel T, pawl U, rope O, double hook V, folding arm I, guy-rod J, stop-rope W, adjustable caster-wheels F, and adjusting screws or pins D with the ladder A, all substantially as shown and described, and for the purpose set forth.

5. The combination of the caster-wheels F and pivoted supporting-bar G with the adjusting-screws H, substantially as shown and described, and for the purpose set forth.

MARTIN CRONIN.

Witnesses:
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