2 Sheets—Sheet 1.

D. E. GIBBONS.

Fire-Escape Ladder.

No. 204,893. Patented June 18, 1878.

Fig. 1

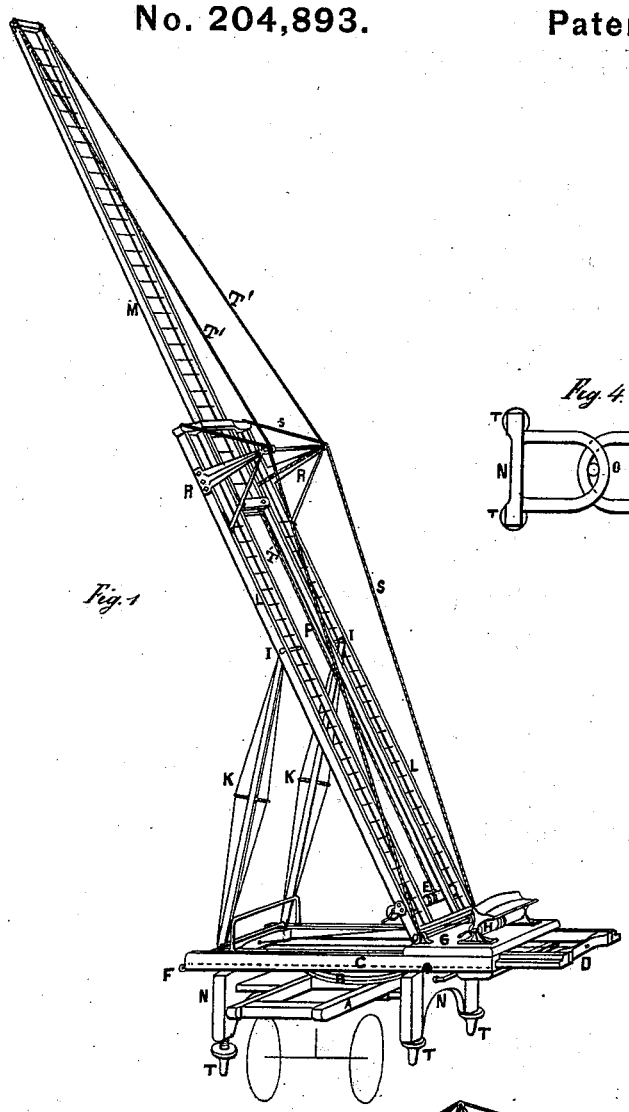


Fig. 4

Fig. 3

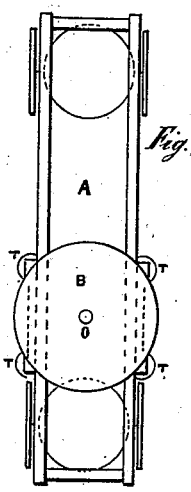


Fig. 5

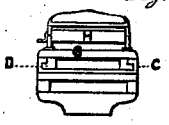
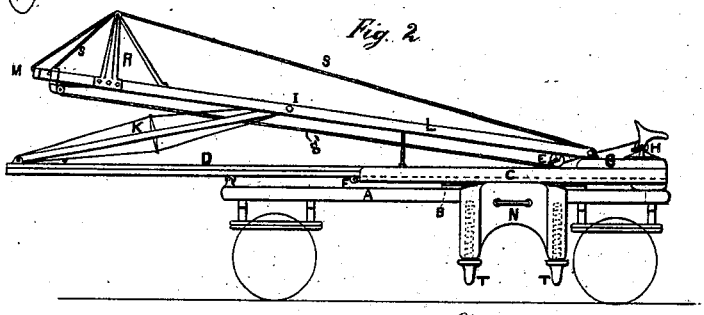


Fig. 2



Attest
John McIntyre
John F. Gibbons

Inventor
Dennis E. Gibbons

2 Sheets—Sheet 2.

D. E. GIBBONS.
Fire-Escape Ladder.

No. 204,893. Patented June 18, 1878.

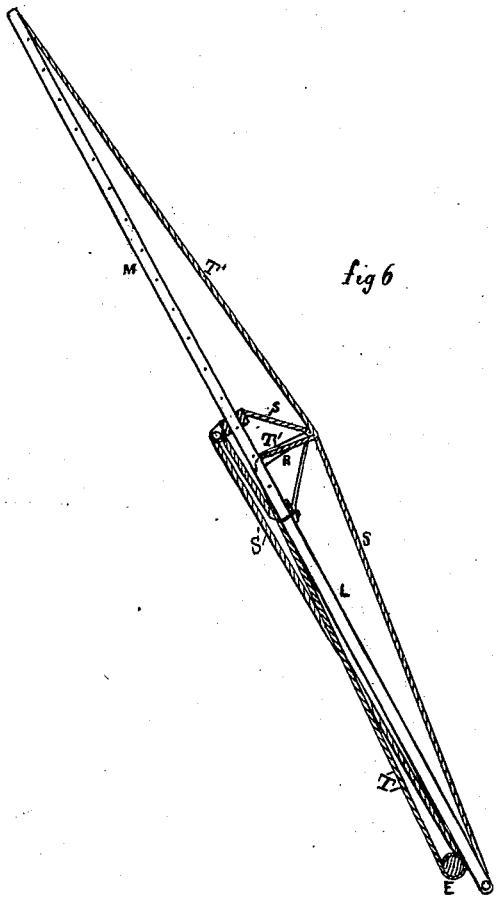


fig 6

Attest
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Inventor
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UNITED STATES PATENT OFFICE.

DENNIS E. GIBBONS, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN FIRE-ESCAPE LADDERS.

Specification forming part of Letters Patent No. **204,893**, dated June 18, 1878; application filed April 12, 1878.

To all whom it may concern:

Be it known that I, DENNIS E. GIBBONS, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Self-Supporting Fire-Escape Ladders, which improvement is fully set forth in the following specification and accompanying drawing, in which—

Figure 1 is a perspective view of the whole apparatus with the ladders risen and extended. Fig. 2 is a side elevation of the same with the ladders lowered as ready for transportation. Fig. 3 is a plan of truck with its platform. Fig. 4 is a plan of the extension-supporters; Fig. 5, end view of supporting-frames.

The object of my invention is to furnish an improved device for reaching the topmost stories and roofs of high buildings from the outside in case of fire, for the protection of life and property.

In the drawing, A represents the truck mounted on four wheels, the axles of which are pivoted in the center, as commonly in use now for hook-and-ladder trucks. On this truck lies horizontally, and is firmly attached, a disk or circular turn-table, B, in the center of which is fixed a strong pivot, O. On this pivot O and platform B rests a frame, C, which revolves on the pivot O, and can consequently be put at any angle with the truck A. This frame C is composed of two side pieces, strongly joined together, and grooved so that the grooves face each other. A second frame, D, slides back and forth in the grooves of frame C, and carries at its rear end the lifting-beams K. These beams are strongly connected with the frame D, but so that they can swing on their ends.

The front end of frame C is bridged over from one side piece to the other by a strong platform, G, which serves as basis to the main ladder, capstan H, and the driver's seat. Capstan H is intended to raise the main ladder by means of ropes running over the roller F at the rear end of frame C, and working the sliding frame D and beams K. The ends of beams K opposite to those attached to frame D are fixed on pivots to the main ladder at I.

L is the main ladder, hinged or pivoted to the platform G. Underneath and at the foot of this ladder is capstan E, the object of which is to raise the extension-ladder M.

The ladder L is double, being built of two separate ladders, connected at the top and bottom, and having a vacant space, P, between them.

R are two braces, which, together with the cables S, stiffen and strengthen the main ladder L. M is an extension-ladder sliding in the space P between the two ladders comprising L. At the foot of M two guides, one on each side, keep the extension-ladder in position. The top piece connecting the parts of ladder L serves also as a guide to M as the latter slides through it.

The rope or cable hoisting M runs from capstan E to a roller on the back and top of L, thence to the foot of M. The cables T′, lowering M, run from the top of M to the top of the braces R, thence to and under a round or pulley at the foot of these braces, and next to the capstan E. These last-mentioned cables act also as braces to the extension M.

N are two extension-supporters, sliding one on each side under the truck A. These supporters are provided each with two adjustable legs, T, which can be screwed up and down to suit the level of the ground. When the frame C, with the ladders and accessories, is at right angle with the truck A, the extension N, being pulled out, helps to support them.

The frame D may be provided with a rack at its top, and a dog fastened on top of frame C, and so placed as to prevent the sliding back of D, as it would act as a safeguard in case one of the ropes or cables might break.

The extensions N, Fig. 4, are fixed to the bottom of the truck A in such a manner that they can slide in and out from under the truck A. The pivot O is made to protrude through the bottom of the turn-table sufficiently to allow it to answer as a stop for the extensions N, to prevent them from being pulled out beyond a given limit.

I claim as my invention—

1. In combination, a double fire-escape ladder acting as basis to an extension-ladder, the latter being braced by ropes or cables, which

lengthen or shorten simultaneously, and in proportion with the sliding up or down of the extension-ladder, the main or double ladder being supported by two beams and a sliding frame, which frame, together with the beams aforesaid, raises the double ladder, the whole being connected with and resting on a turn-table, all substantially as described.

2. The combination of the before-mentioned ladder and appurtenances with adjustable extension-supporters, substantially as described.

DENNIS E. GIBBONS.

Witnesses:
JOHN F. GIBBONS,
JOHN MCINTYRE.