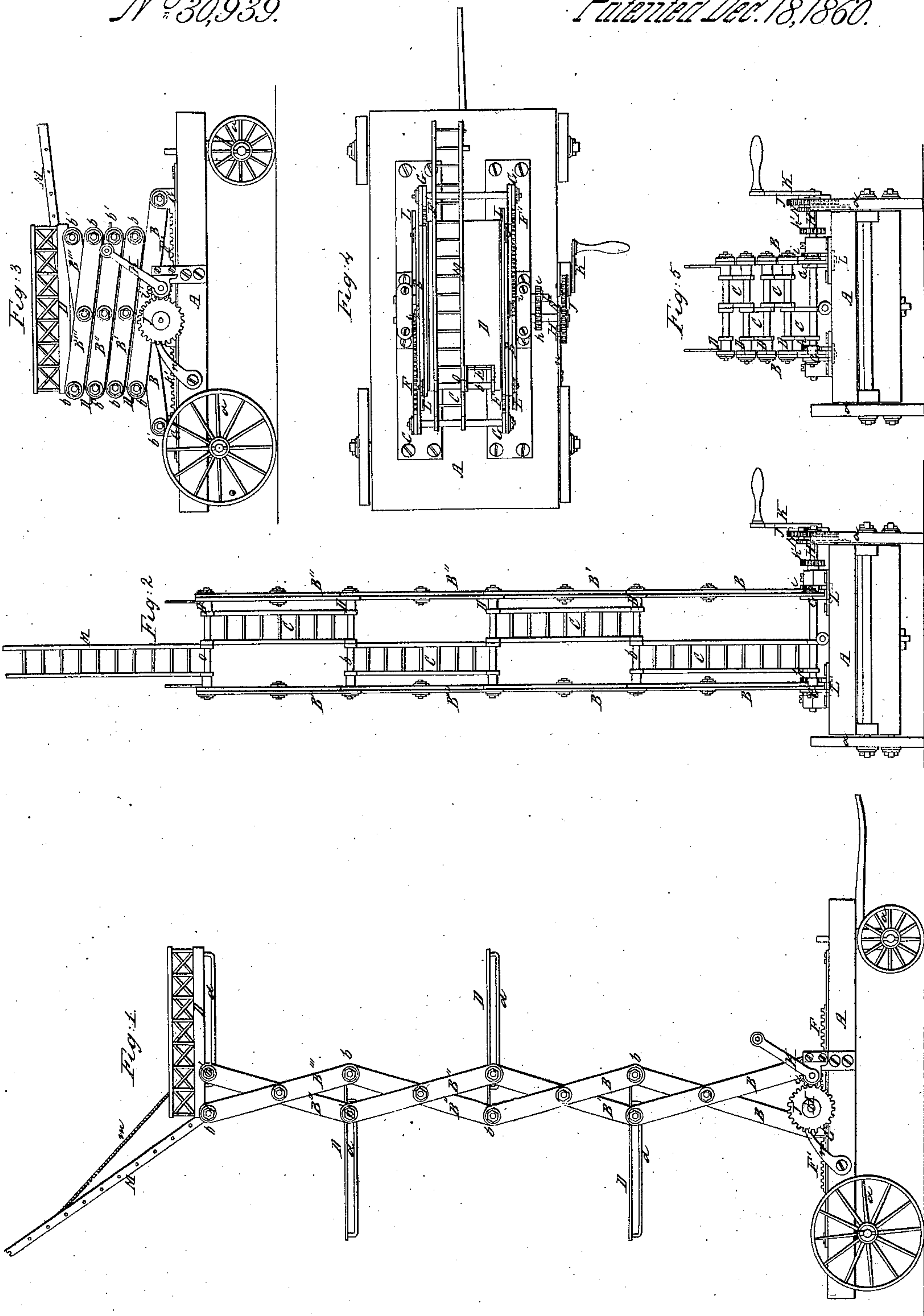


C. Sturzel.

Fire Escape.

N^o 30,939.

Patented Dec. 18, 1860.



Witnesses
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J. Snyder

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UNITED STATES PATENT OFFICE.

CLAUDE STUREL, OF NEW YORK, N. Y.

FIRE-ESCAPE.

Specification of Letters Patent No. 30,939, dated December 18, 1860.

To all whom it may concern:

Be it known that I, CLAUDE STUREL, of New York, in the county of New York and State of New York, have invented a certain new and useful Fire-Escape; 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, in which—

Figure 1, is a side elevation of my improved fire escape when erected for use. Fig. 2 is an end elevation of the same. Fig. 3 is a side elevation when folded and ready for transportation. Fig. 4 is a plan of the same, and Fig. 5 is an end view of Figs. 3 and 4.

Similar letters of reference denote like parts in all the figures.

The nature of my invention consists in the arrangement of a series of platforms alternately on opposite sides of the frame work, and so connected to the framework in the manner hereinafter described, that they slide out into place when the frame is raised and are slid back into the frame as it is depressed.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation by the aid of the drawings and of the letters of reference marked thereon.

A is a carriage or platform, of any suitable form or size, mounted on wheels *a, a*, for convenience of transportation. In the top of A is a stout casting with grooves, or channels, L, in which racks, F, F', are free to slide. The racks F, F', are flanged on their lower edges and these flanges are guided in corresponding grooves in the side of the grooves L, so that F, F', cannot rise or sink in L. A shaft, H, mounted in suitable bearings extends across the platform A, carrying pinions, *h, h*, which gear into the racks, F, F'. The shaft H receives its motion from a crank and pinion, K, through J. Another shaft I is placed parallel to H, and receives its motion therefrom by means of a gear on each represented by *i* and *h'*, giving I a motion in the contrary direction to that of H. Pinions *i, i*, on the shaft I mesh into and drive the racks F', F' in a direction contrary to that of the racks F, F'. To each of these racks I affix a standard as seen at G, and G' to which are jointed the levers, B, B, hinged to each other at or near the center of each, so that as the racks are

moved outward the levers B, B, fold down close to the platform A as shown in Fig. 3, but when the racks are moved inward these levers gradually rise until they attain nearly vertical positions as shown in Fig. 1. To the ends of B, B, other similar levers, B', B', are attached and to these others B'', B'', and so on to any required extent. These levers all operate simultaneously with B, B, and when closed occupy but little space but when elevated they each rise to a nearly erect position being closely analogous to the device known in some branches of the arts as a "lazy tongs."

The two series on opposite sides of the platform are united at their ends by rounds or shafts, *b, b'*, which serve as pivots. Ladders C each of the length of one of the levers are attached to these rounds, *b*, so that they lie in or near the same plane as the levers and are connected by the same rounds, so that when the levers are folded the ladders lie enfolded within them. These ladders are of less width than the whole width of the frame work, and are placed alternately at opposite sides of the center, as shown in Fig. 2, so that the person ascending or descending on arriving at the end of one ladder, by turning half around is at the commencement of the next.

To the rounds, *b*, to which the ladders are attached, I attach platforms D, which also lie on the opposite rounds *b'* as shown in Fig. 1. A bar, *d*, parallel to D, and secured thereto at each end, passes under *b'* forming a guide to hold D in contact therewith and permit it to slide thereon as the frame is elevated or lowered. When the frame B, B, is elevated the platforms D project on opposite sides of the frame as shown in Fig. 1 and in all conditions of the frame the platforms are held rigidly in their position and may with perfect confidence be made the base of ladders or of any other contrivance for communicating with the windows of a building or for supporting hose.

A ladder, M, is attached to the upper platform, or the upper series of levers, in such a manner as to be free to turn up or down. It may be controlled in whole or in part by a cord *m*, attached to the opposite edge of the platform. After the frame B, B', is erected to a sufficient height by turning the gears *h, i*, this ladder is thrown over against the burning building to form a communication between it and the escape. When the

apparatus is not in use this ladder may be folded back upon the upper platforms as shown in Fig. 3. This ladder may be made extensible by any of the well known means
5 if desired.

Having now fully described my invention what I claim as new therein and desire to secure by Letters Patent is—

The arrangement of the platforms D,
10 alternately on opposite sides of the frame-

work, and holding them rigidly parallel to the deck of the wagon in all conditions of the frame, by means of the bars *d*, or their equivalents, substantially as and for the purpose set forth.

CLAUDE STUREL.

Witnesses:

G. H. BABCOCK,
A. SNYDER.