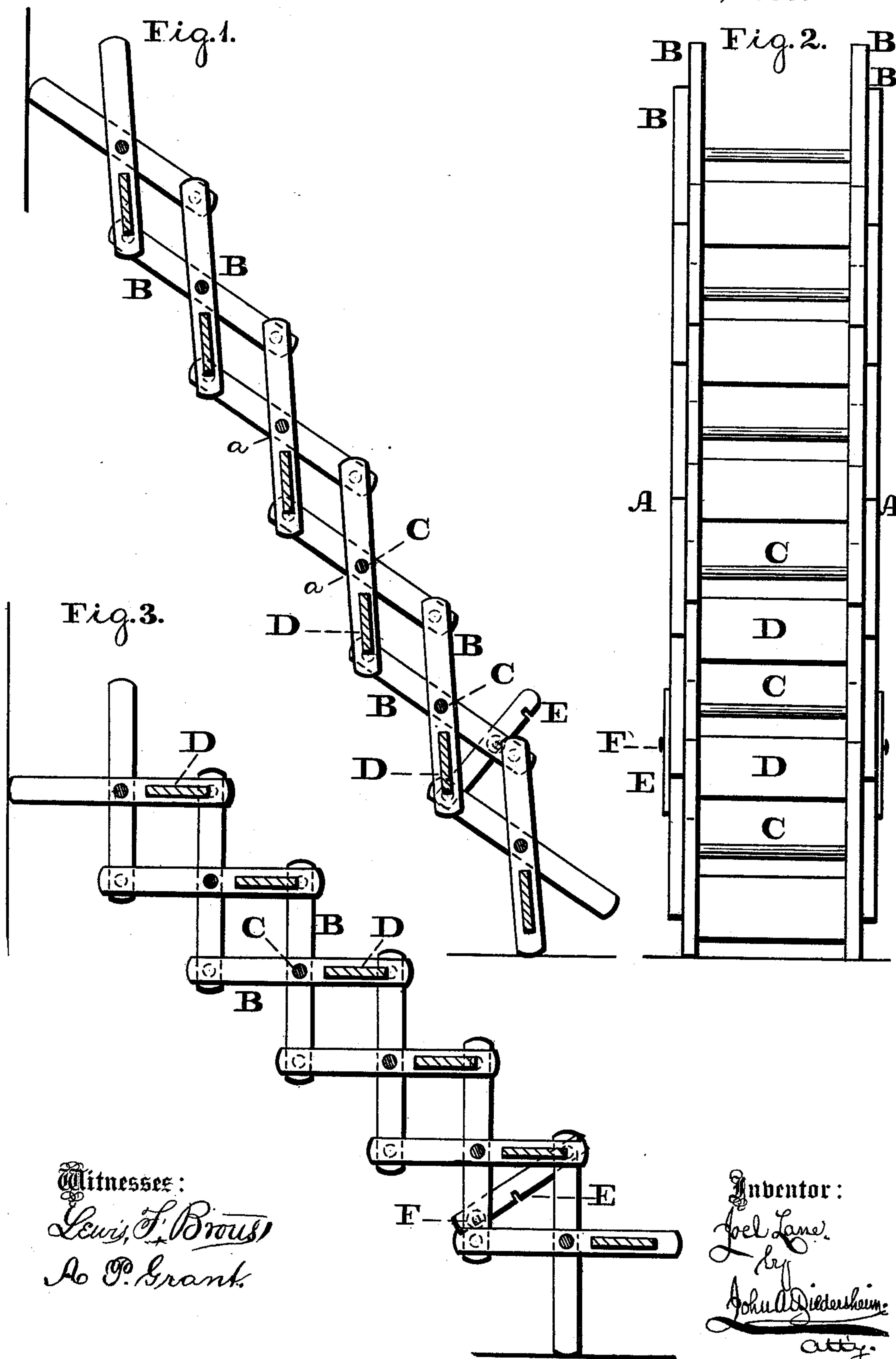


J. LANE.
Combined Ladder and Steps.
No. 196,679. Patented Oct. 30, 1877.



UNITED STATES PATENT OFFICE.

JOEL LANE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN COMBINED LADDER AND STEPS.

Specification forming part of Letters Patent No. **196,679**, dated October 30, 1877; application filed October 23, 1875.

To all whom it may concern:

Be it known that I, JOEL LANE, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Ladders and Steps; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figures 1 and 3 are side views of the device embodying my invention. Fig. 2 is a face view thereof.

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

My invention consists in a combined ladder and steps or stairs, which may be compactly folded.

Referring to the drawings, A represents the two sides of the combined ladder and steps, each of which sides consists of a series of bars, B, which are jointed to each other after the manner of the well-known "lazy-tongs." C represents rounds, which extend from side to side of the jointed bars at the central points *a* of the junction or crossing. D represents cross-pieces, ends of which are secured to one of the two bars of the lazy-tongs, that cross each other. To one bar, near what is the bottom of the device, there is hinged a locking-arm, E, which is formed with a series of notches, and adapted to engage with a pin or stud, F, on the bar adjacent to the bar on which said arm is pivoted.

The operation is as follows: When a ladder is required, the tongs or bars B are drawn out, so as to lengthen the sides A, and they may be set against the place of usage after the manner of a ladder, as shown in Fig. 1, the arm E having its inner notch locked with the pin or stud F. The rounds C are perfectly unobstructed, and are conveniently accessible for the person ascending and descending.

It will be seen that the bars D are on the under side of the rounds.

When steps or stairs are required, the cross-bars are brought to a right angle, and the sides A arranged so as to have the bars D uppermost, as shown in Fig. 3. The outer notch of the arm E will be locked with the stud or pin F, and the stairs or steps are complete for service.

When the device is not required it may be folded in compact form and conveniently stowed or carried.

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

The combined steps and ladder herein described, operating after the manner of a lazy-tongs, consisting of the jointed side bars B, rounds C, steps D, and the locking-arm E and stud F, substantially as shown and specified.

JOEL LANE.

Witnesses:

JOHN A. WIEDERSHEIM,
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