J. BLAUVELT.

Step-Ladder.

No. 163,044. Patented May 11, 1875.

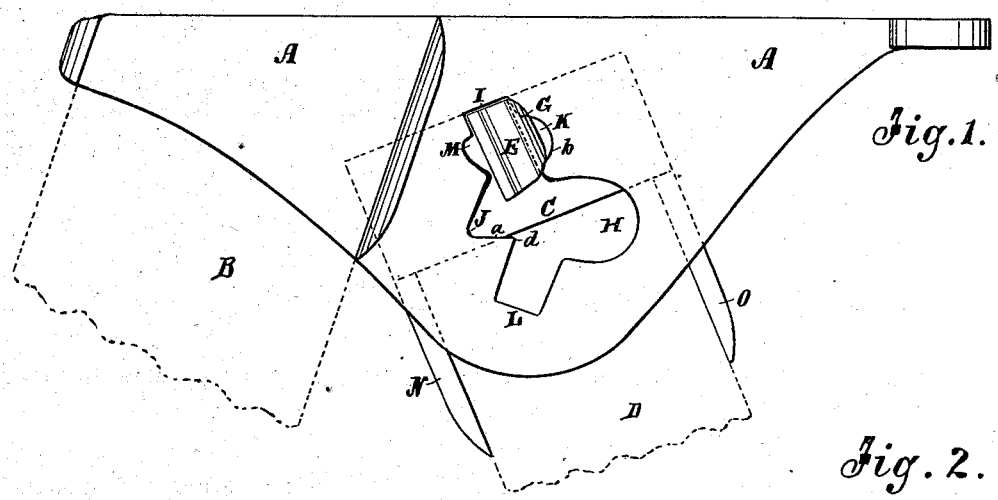


Fig. 1.

Fig. 2.

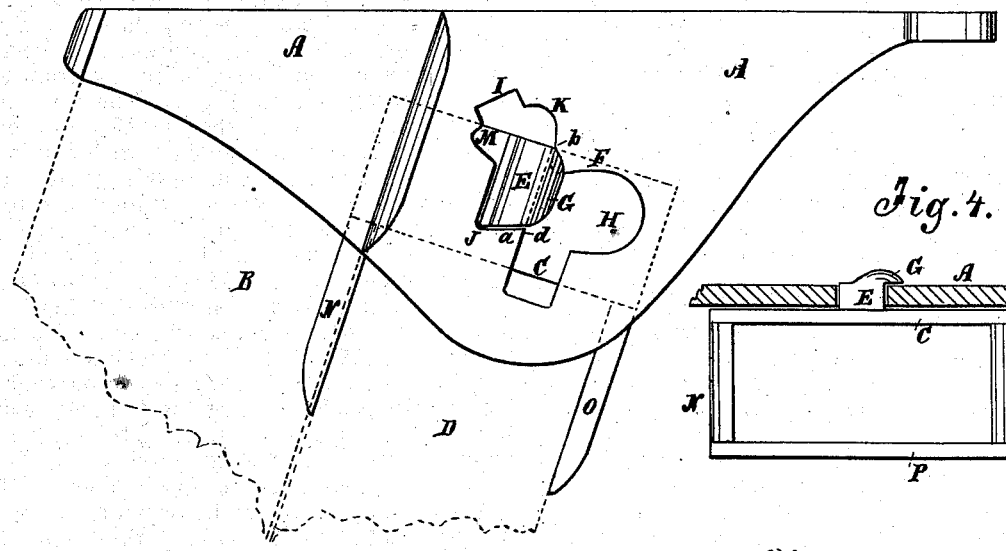
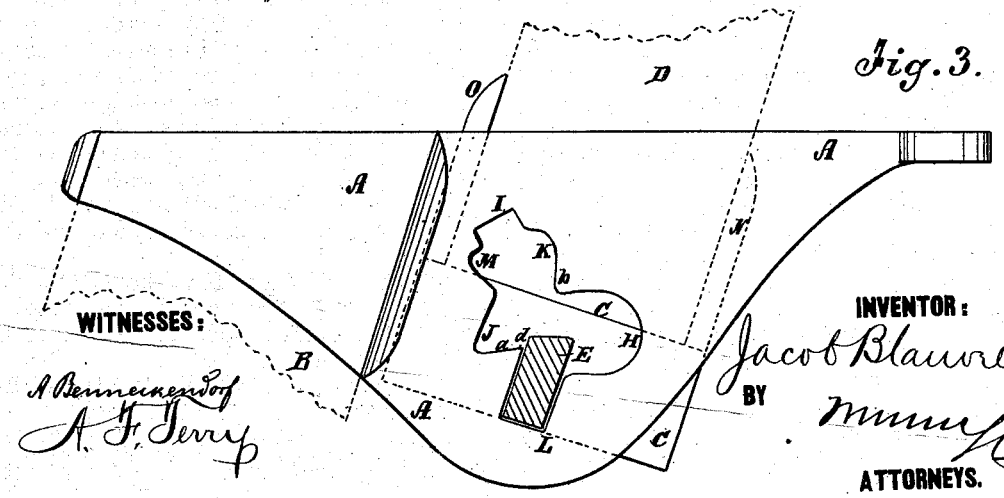


Fig. 4.

Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JACOB BLAUVELT, OF BLAUVELTVILLE, NEW YORK.

IMPROVEMENT IN STEP-LADDERS.

Specification forming part of Letters Patent No. **163,044**, dated May 11, 1875; application filed October 17, 1874.

To all whom it may concern:

Be it known that I, JACOB BLAUVELT, of Blauveltville, in the county of Rockland and State of New York, have invented a new and Improved Step-Ladder, of which the following is a specification:

My invention consists of connecting or jointing plates or hinges for jointing the ladder and the braces together at the top, so contrived that they will lock when the braces are adjusted to hold the ladder in the position for use, and also allow the braces to fold up to the ladder for storing away, and will lock them in that position; and it also consists of the plates contrived to allow the braces to swing up into line with the latter, or nearly, and lock them in that position, so as to utilize them for an extension-ladder, the braces being suitably provided with rungs or steps.

Figure 1 is a side elevation of a pair of joint-plates, showing the positions when arranged to support the ladder in position for use. Fig. 2 is a side elevation, showing the positions when the braces and ladder are folded together. Fig. 3 is a side elevation, showing the braces adjusted to form an extension of the ladder. Fig. 4 is a section of one of the plates.

Similar letters of reference indicate corresponding parts.

A is the plate which is attached to the top of the ladder-standard B. C is the plate which is attached to the brace D. The latter has an angular stud or pivot, E, which projects through a hole, F, in the former, and has a lip, G, at the outer end to lock behind plate A and prevent it from escaping from the hole. This hole in plate A is of peculiar form to allow the angular-headed pivot to be introduced and removed, also to be turned to the different positions and locked. The large curved portion H of the hole is to allow of introducing and removing the headed pivot, and also turning it around. The upper angular notch I receives the pivot when the braces are to be adjusted to hold the ladder in the position for use, as represented in Fig. 1. The pivot being introduced through the part H of the hole, while the brace is held at an angle of a little more than ninety degrees, moves readily up into notch I as the brace is swung down from said angle to the position represented in Fig. 1. The notch J receives the lower end of the pivot when the brace folds down by the side of the standard A, the notch K allowing it to swing into said notch, and the notch J being so that the pivot is held by the lower wall *a* and the wall *b* of notch K so as to prevent it from working into the large part H and escaping from the plate. By shifting the pivot upward in notch K and out of notch J, and then turning it around to the left in hole H, the upper part of the pivot will drop into notch L, as represented in Fig. 3, and thus hold the braces upward to serve as an extension of the ladder. The little notch M receives one corner of the pivot when moving up from the hole H into the notch I to allow the lower edge to pass point *d*. The plate C has a socket formed by plates N O P, and a top plate cast on it to facilitate the fastening of the brace to it.

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

The plate A, having notched hole H, notches I, J, K, and L, in combination with plate C, having the angular-headed pivot E, substantially as specified.

JACOB BLAUVELT.

Witnesses:

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