

UNITED STATES PATENT OFFICE.

ALBERT LARKIN, OF ALMOND, NEW YORK, ASSIGNOR OF ONE-HALF HIS
RIGHT TO H. S. HALL, OF SAME PLACE.

IMPROVEMENT IN STEP-LADDERS.

Specification forming part of Letters Patent No. 196,680, dated October 30, 1877; application filed
March 31, 1877.

To all whom it may concern:

Be it known that I, ALBERT LARKIN, of Almond, in the county of Allegany and State of New York, have invented certain new and useful Improvements in Step-Ladders; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of my invention consists in the construction and arrangement of an adjustable extension step-ladder, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of my ladder when in position as an ordinary step-ladder. Fig. 2 is a side view of the same when extended.

A A represent the sides, and B B the steps, of an ordinary step-ladder, the side pieces, however, being inclined inward—that is to say, the bottom of the ladder is wider than the top.

In connection with this step-ladder is used an auxiliary ladder, composed of two parallel side pieces, C C, connected by rounds D D. The upper ends of the side pieces C are formed with longitudinal slots *a*, and placed upon the ends of a rod, *b*, which has its bearings in rear of the main ladder in plates or castings *d* attached to the side pieces A, and projecting in rear thereof.

The auxiliary ladder C D is spread rearward to form a brace and support the main ladder, when it is so arranged that the rod *b* will lie in the lower ends of the slots *a*, and the upper ends of the side pieces C be moved into and held by loops or staples *h* fastened to the side pieces A of the main ladder, thereby holding the two ladders firmly in position, as shown in Fig. 1. They are still further braced by means of a hook, E, on each side, as shown; and when the ladder stands on uneven or inclined ground, additional braces G are applied at right angles to the direction of the ladder. These braces are at their upper ends provided with hooks *f*, which hook in eyes *i* on the side pieces A, and have pins *k* at their lower ends to enter the ground.

When these braces G are not in use they are laid on the outside of the side pieces A, as shown by dotted lines in Fig. 2, and held by a button or catch, *m*.

By drawing down the ladder C D so that the rod *b* will be in the upper ends of the slots *a*, the ladder C D can be reversed or raised, so as to form an extension of the main ladder, when it is again pressed down till the upper ends of the slots *a* rest on the rod *b*. The lower ends of the side pieces C are held against the rear edges of the side pieces A, and the ladder C D thereby braced against the back edge of the top step B. The ladder C D is there held firmly by means of the hooks E, as shown in Fig. 2.

I represents a sliding bar, laid on the front edge of one of the side pieces A, and held in a notch in the edge of the top step by a loop or staple. At the lower end this bar has an angular or crank-pin, *s*, to be inserted in a hole in either one of the steps B, and thus be held at any elevation desired, while at the upper end it has a hook, *p*, for hanging the paint-bucket or other article desired to be used.

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

1. The combination of the main step-ladder A B, having its sides contracted toward the top, the auxiliary reversible ladder C D, having its sides parallel and provided with slots *a a*, the rod *b*, supported by plates *d* in rear of the main ladder and passing through the slots in the auxiliary ladder, and the rods or hooks E, pivoted to the auxiliary ladder, and adapted to hold the same to the main ladder either as a brace or as an extension, substantially as and for the purposes herein set forth.

2. The combination, with a step-ladder, A B, of the sliding bar I, provided with the hook *p* and angular or crank-pin *s*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ALBERT LARKIN.

Witnesses:

C. B. BARNARD,
HARRY CRANDALL.