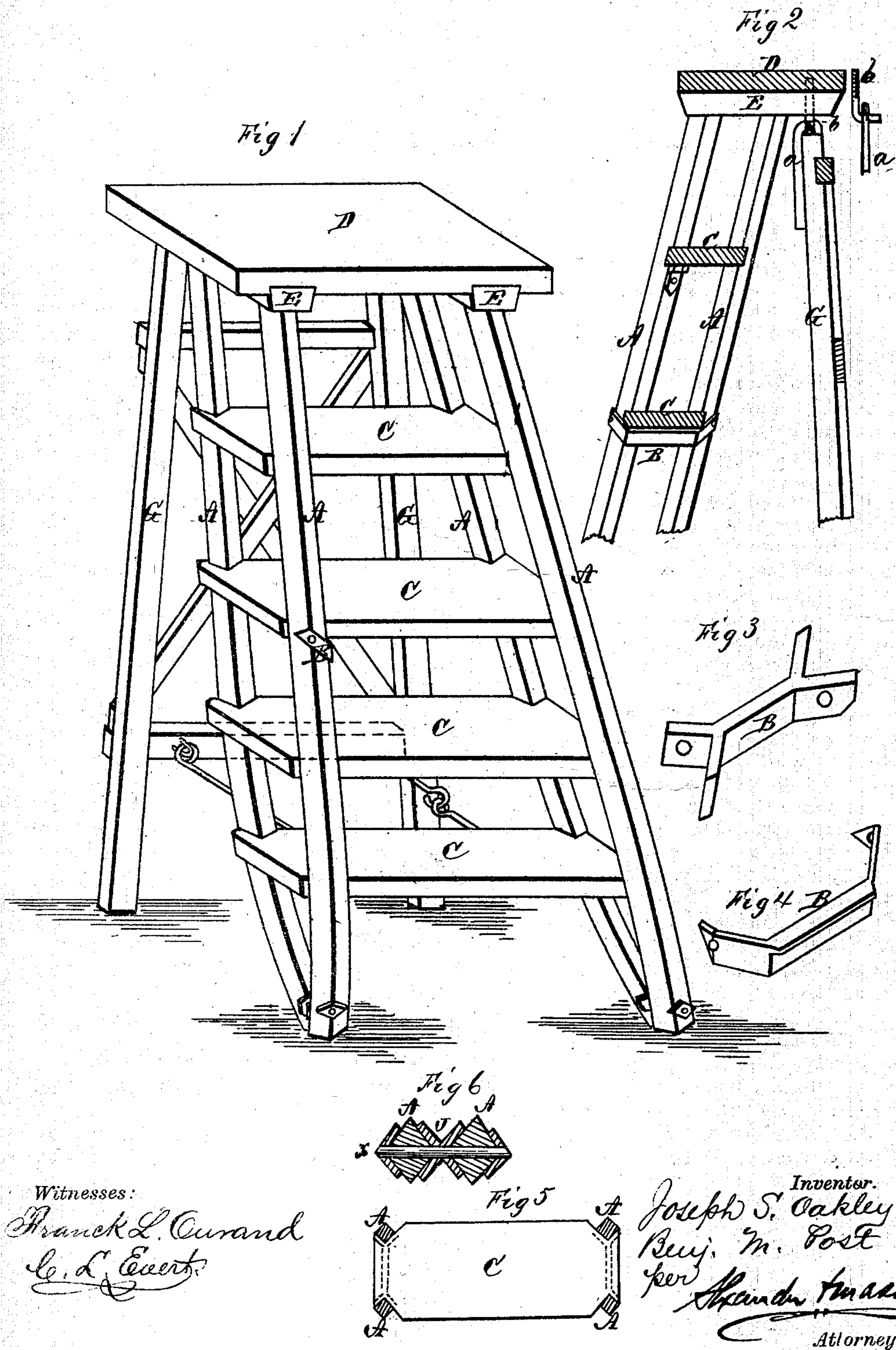


OAKLEY & POST. Step-Ladders.

No. 139,183

Patented May 20, 1873.



Witnesses:

Frank L. Curand
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Inventor.

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per *Handwritten signature*
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UNITED STATES PATENT OFFICE.

JOSEPH S. OAKLEY AND BENJAMIN M. POST, OF PASSAIC, NEW JERSEY.

IMPROVEMENT IN STEP-LADDERS.

Specification forming part of Letters Patent No. 139,183, dated May 20, 1873; application filed April 3, 1873.

To all whom it may concern:

Be it known that we, JOSEPH S. OAKLEY and BENJ. M. POST, of Passaic, in the county of Passaic and in the State of New Jersey, have invented certain new and useful Improvements in Step-Ladder; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of our invention consists in the construction and arrangement of a step-ladder, as will be hereinafter more fully set forth.

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

Figure 1 is a perspective view of our step-ladder. Fig. 2 is a vertical section of the upper part of the ladder; and Figs. 3, 4, 5, and 6 show detached parts of the ladder.

Each side of our step-ladder is made of two stiles, A A, which are square, but placed diagonally or in diamond form, thereby obtaining the greatest strength of the timber in the two directions that a ladder is most tried, and likewise facilitates the attachment of the metal brackets B B. These brackets may be made in either of the forms shown in Figs. 3 and 4, or in any other suitable form that will support the steps C C and hold the front and back stiles together. The corners of the steps C C are notched, as shown in Fig. 5, and the diagonal or diamond stiles A A are placed in said notches, thus forming a powerful dovetail, at once bracing and holding the ladder together. D represents the top platform, in the under side of which, near each end, is dovetailed a cross-bar, E, and into said cross-bars the upper ends of the stiles A A are inserted. These cross-bars thus make a convenient and firm fastening for the stiles, and also prevent the top D from warping. G G represent the back legs, braced and connected together in any

suitable manner, and each of them is at its upper end provided with a strap, a, bent at its upper end to form an eye or loop. Through each piece E, and into the top board D, is screwed a hook, b, which, in combination with the strap a, forms a convenient hinge for the back legs; and said screws or screw-hooks also serve as a fastening to prevent the cross-bars E E from sliding out of the top D. The lower ends of the stiles A A on each side are connected together by means of a double cap, J, as shown in Fig. 6, which, in combination with the rivet x, forms a convenient fastening.

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

1. The stiles A A, when set diagonally or in diamond form and used in combination with the notched steps C C, substantially as and for the purposes herein set forth.

2. In a step-ladder, metallic brackets B B, to support the ends of the steps and connect and brace the stiles, substantially as herein set forth.

3. The combination of the stiles A A, platform D, and cross-bars E E, said cross-bars being dovetailed into the platform, and the ends of the stiles inserted in the cross-bars, substantially as herein set forth.

4. The hinge formed of the strap a and screw-hook b, the strap being secured to the back leg G, and the screw-hook passed through the cross-bar E into the platform D, to secure the same together, substantially as herein set forth.

5. The combination of the stiles A A, double cap J, and rivet x, for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 4th day of February, 1873.

JOSEPH S. OAKLEY.
BENJAMIN M. POST.

Witnesses:

A. N. MARR,
JOHN DUFFUS.