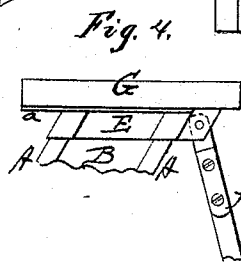
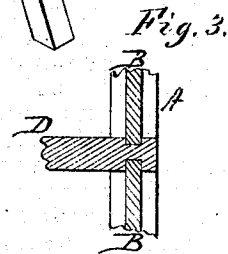
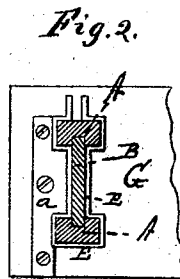
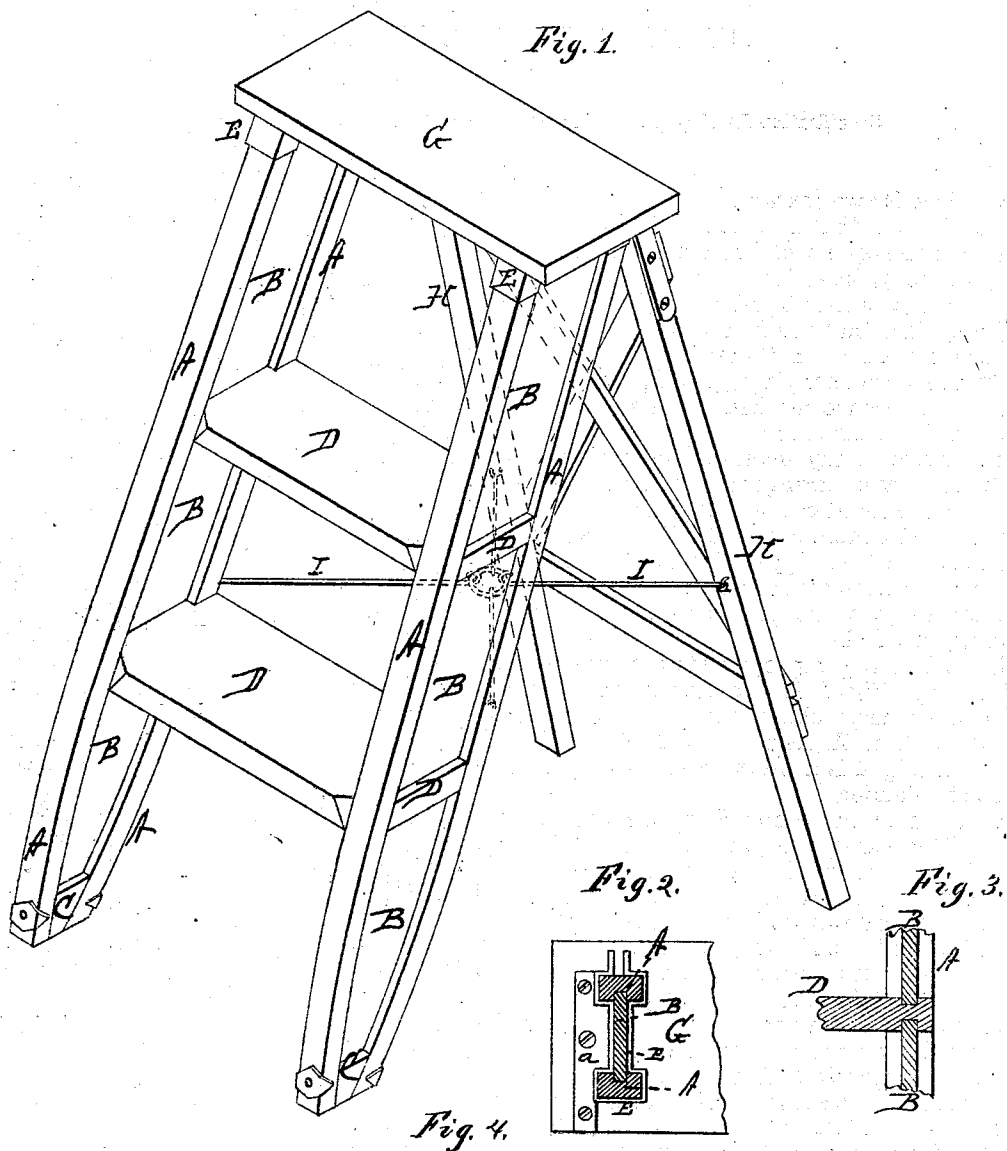


JOSEPH S. OAKLEY.

Improvement in Step Ladders.

No. 121,190.

Patented Nov. 21, 1871.



Witnesses:

Henry A. Miller,
C. L. Ewert.

Inventor

Joseph S. Oakley
per Alexander Mason
Attorneys.

UNITED STATES PATENT OFFICE.

JOSEPH S. OAKLEY, OF PASSAIC, NEW JERSEY.

IMPROVEMENT IN STEP-LADDERS.

Specification forming part of Letters Patent No. 121,190, dated November 21, 1871.

To all whom it may concern:

Be it known that I, JOSEPH S. OAKLEY, of Passaic, in the county of Passaic and in the State of New Jersey, have invented certain new and useful Improvements in Step-Ladders; 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 my 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 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 the entire step-ladder. Fig. 2 is a cross-section through one of the sides, looking upward. Fig. 3 is a vertical section through the end of one of the steps, and Fig. 4 is a side view of the upper end of the step-ladder.

The sides of my step-ladder are each composed of two stiles, A A, and panels B B. The stiles A A are grooved longitudinally on the inner sides and run parallel with each other from the upper ends downward to near the lower ends, where they are bent inward toward each other, and a block, C, is inserted between their extreme lower ends. This block has tongues fitting in the grooves on the inner sides of the stiles, and is fastened by screws, rivets, or other suitable means. The panels B B fit in the grooves on the stiles A A, as shown in Fig. 2, and on top of each panel is laid the end of a step, D, which extends far enough to be flush with the outer sides of the stiles. The upper and lower sides of the step D are grooved for the ends of the

panels to fit into, as shown in Fig. 3. On the upper ends of the stiles A A and of the upper panel B is placed a malleable or cast-iron box, E, provided with an outward projecting flange, *a*, along the outer side. This box E is fastened to the stiles by rivets or other suitable means, and the top step G is laid on top thereof, and fastened by screws or their equivalents passing upward through the flange *a* into the step. The rear ends of the boxes E E form suitable hinges for the legs H H, which are connected and braced in any desired manner, and are also connected with the sides of the ladder by rods I I. The manner of forming the sides and securing the steps of the ladder give great strength and at the same time lightness to the ladder.

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

1. The stiles A A, grooved longitudinally along their inner sides to receive the panels B B, substantially as herein set forth.

2. The steps D D, having their ends grooved on the upper and lower sides to receive the ends of the panels B B, substantially as herein set forth.

3. The combination of the stiles A A, panels B B, blocks C C, and steps D D, substantially as and for the purposes herein set forth.

4. The boxes E E, constructed and applied as described, with flanges *a a*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of October, 1871.

JOSEPH S. OAKLEY.

Witnesses:

EDM. F. BROWN,
HARRY C. SCOTT.

(30)