

(No Model.)

C. E. BROWNSON.

STEP LADDER.

No. 322,414.

Patented July 21, 1885.

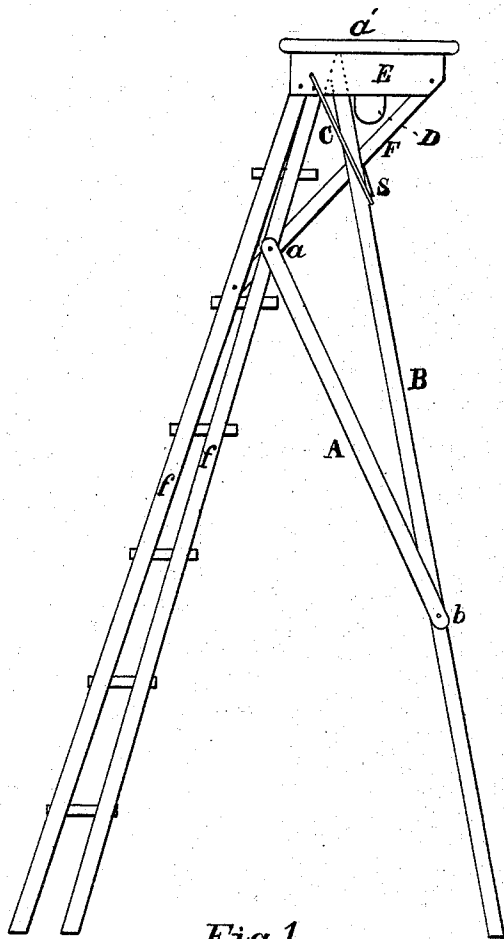


Fig 1

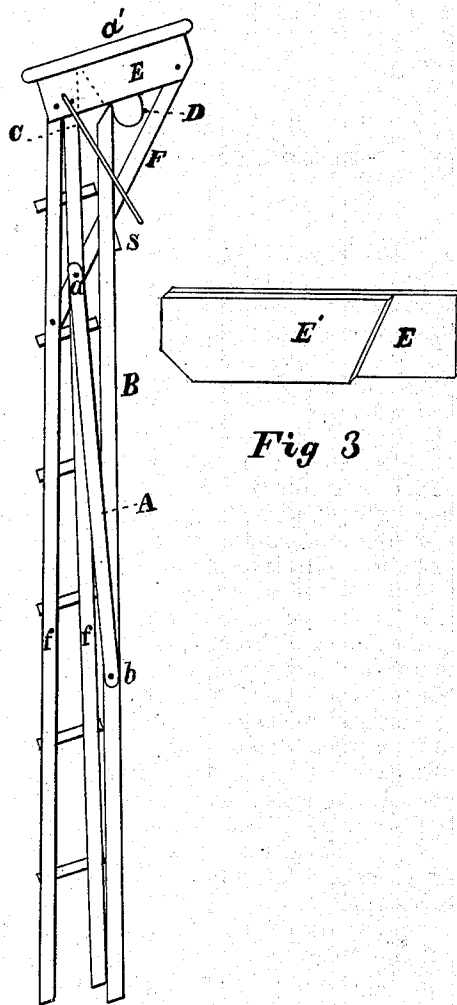


Fig 3

Fig 2

Witnesses  
Ola P. Sanborn  
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# UNITED STATES PATENT OFFICE.

CHANCEY E. BROWNSON, OF LANSING, MICHIGAN.

## STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 322,414, dated July 21, 1885.

Application filed December 19, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, CHANCEY E. BROWNSON, a citizen of the United States, residing at Lansing, in the county of Ingham and State of Michigan, have invented a new and useful Step-Ladder, of which the following is a specification.

My invention relates to improvements in step-ladders which are supported in an inclined position by a prop-frame; and the objects of my improvements are, first, to provide a step-ladder that shall be inexpensive in construction, effective in operation, and convenient in use; second, to obviate the necessity of attaching the prop-frame to the step-ladder at the top, and thereby the hinge; and, third, to afford a facility for locking the prop-frame when open. I attain these objects by the mechanisms illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation showing the ladder when open for use. Fig. 2 is a side elevation showing the same when closed; and Fig. 3 is an enlarged view in perspective of the reverse side of bracket E, showing the block E' attached.

Similar letters refer to similar parts throughout the several views.

To the upper end of stiles, which are preferably made in two bars each, *ff*, and to which the steps are attached, are bolted the brackets E, on which is a platform, *a'*, the outer end of said brackets being supported by braces F.

The prop-frame B is attached to the ladder by tie-bars A, there being one on each side, which are attached by bolts at points indicated by *a* and *b*, and are left free to turn on said bolts. It will here be observed that the bars

A, being attached in this manner, operate as a combined hinge and tie, and by their action the prop-frame is brought into place for supporting the ladder, and is rigidly held by the upper end of standards B, being adapted to and bearing in gains formed on the inside of brackets E, by and between the end of blocks E' and stile *f*, as indicated by dotted lines.

Attached to the brackets E is a square bail, C, of one-fourth-inch wire, which drops over and engages a lug or catch upon each standard of the prop-frame, and thereby locks the same so that the ladder may be moved about without closing.

I am aware that prior to my invention step-ladders have been made with a prop-frame hinged thereto at or near the top, and provided with a tie to prevent their spreading. I therefore do not claim such a combination broadly; but

What I do claim, and desire to secure by Letters Patent, is—

1. In a step-ladder, the combination of the combined hinge and tie-bar A with the prop-frame B, having the upper ends of standards adapted to and bearing in gains formed on the inside of brackets E, all substantially as shown, described, and for the purpose specified.

2. In a step-ladder, the combination of brackets E, bail C, attached, and prop-frame B, provided with lugs or catches S, all substantially as set forth, and for the purpose specified.

CHANCEY E. BROWNSON.

Witnesses:

JACOB STAHL,  
ELA P. SANBORN.